

Dean's Impact Awards

2023 WashU Medicine





The COVID-19 pandemic has made an indelible imprint on all of us. As the acute crisis diminishes, we honor the work of our community. While everyone at Washington University School of Medicine deserves recognition for their remarkable work during the COVID-19 pandemic, we now recognize faculty whose exceptional dedication and selfless responses to the pandemic went beyond expectations to make a difference for our patients, and for our school, city and beyond.

The 2023 Dean's Impact Awards recognize faculty whose superior efforts in response to the COVID-19 pandemic have had lasting impact, who demonstrated the highest level of professionalism and who delivered exceptional results across the missions of the School of Medicine. Recipients of the Dean's Impact Awards represent the determination and adaptability, compassion and innovation required to lead us through unprecedented times.

Through this recognition of colleagues, we thank each of the Dean's Impact Award recipients for all they have done for Washington University School of Medicine and for all they continue to do through dedicated service to our patients, our learners and our community.

With deep respect and our sincere appreciation for your extraordinary work,

Renée A. Shellhaas, MD, MS

Associate Dean for Faculty Promotions & Career Development David T. Blasingame Professor

David H. Perlmutter, MD

Executive Vice Chancellor for Medical Affairs Spencer T. and Ann W. Olin Distinguished Professor George and Carol Bauer Endowed Dean

Welcome

Renée A. Shellhaas, MD, MS Associate Dean for Faculty Promotions & Career Development

Remarks of Appreciation

David H. Perlmutter, MD Executive Vice Chancellor for Medical Affairs and Dean

Introduction of the 2023 Dean's Impact Award Recipients

Renée A. Shellhaas, MD, MS

Department heads will be invited to join Dean Perlmutter to congratulate their winners.

Closing Remarks

Renée A. Shellhaas, MD, MS

2023 Dean's Impact Award Recipients

Department of Anesthesiology

Enyo A. Ablordeppey, MD, MPH, FACEP, FCCM Associate Professor of Anesthesiology and of Emergency Medicine Associate Vice Chair for Diversity, Equity and Inclusion

Anne M. Drewry, MD Associate Professor of Anesthesiology and of Critical Care Medicine Vice Chair, Department of Anesthesiology Chief, Division of Critical Care

Thomas G. Kannampallil, PhD Associate Professor of Anesthesiology Associate Professor of Computer Science and Engineering, School of Engineering and Applied Science Director, Acute Care Innovation Research Associate Chief Research Information Officer, School of Medicine

Uchenna R. Ofoma, MD, MS Associate Professor of Anesthesiology

Clare H. Ridley, MD Assistant Professor of Anesthesiology and of Surgery

Pratik Sinha, MD, PhD Assistant Professor of Anesthesiology

Department of Cell Biology and Physiology

Heather L. True, PhD Professor of Cell Biology and Physiology David English Smith Professor of Medicine Associate Director, Roy and Diana Vagelos Division of Biology & Biomedical Sciences

Department of Developmental Biology

S. Kerry Kornfeld, MD, PhD Professor of Developmental Biology

Department of Emergency Medicine

Stacey L. House, MD, PhD Assistant Professor of Emergency Medicine Chief, Division of Research Vice Chair of Clinical Research in

Philip A. Mudd, MD, PhD Assistant Professor of Emergency Medicine

Department of Genetics

Richard D. Head, MS Professor of Genetics

Emergency Medicine

Department of Medicine

Douglas R. Adkins, MD Professor of Medicine

Chien-Huan Chen, MD, PhD Professor of Medicine

Thomas M. Ciesielski, MD Associate Professor of Medicine

Vladimir N. Despotovic, MD Associate Professor of Medicine Michael S. Diamond, MD, PhD Professor of Medicine, of Molecular Microbiology and of Pathology and Immunology Herbert S. Gasser Professor

Elvin H. Geng, MD, MPH Professor of Medicine

Michael Y. Lin, MD Associate Professor of Medicine

Rachel M. Presti, MD, PhD Associate Professor of Medicine

Anitha Vijayan, MD Professor of Medicine

David K. Warren, MD, MPH Professor of Medicine

Department of Molecular Microbiology

Siyuan Ding, PhD Assistant Professor of Molecular Microbiology

Department of Neurology

Omar H. Butt, MD, PhD Instructor in Medicine

Gabriela de Bruin, MD Professor of Neurology Vice Chair of Clinical Operations, Department of Neurology

Salah G. Keyrouz, MD, FAHA Professor of Neurology and of Neurological Surgery Chief, Section of Neurological Critical Care

Department of Neuroscience

Amy L. Bauernfeind, PhD, and team Associate Professor of Anatomy in Neuroscience Vice Chair of Education, Department of Neuroscience

Department of Obstetrics & Gynecology

Jeannie C. Kelly, MD, MS Associate Professor of Obstetrics and Gynecology

Program in Occupational Therapy

Jessie L. Bricker, OTD, OTR/L Instructor of Occupational Therapy and of Medicine Academic Fieldwork and Capstone Coordinator

Department of Orthopaedic Surgery

Devyani M. Hunt, MD Professor of Orthopaedic Surgery and of Neurology Chief, Division of Physical Medicine and Rehabilitation

Christopher M. McAndrew, MD Associate Professor of Orthopaedic Surgery

Department of Otolaryngology – Head & Neck Surgery

M. Allison Ogden, MD Professor of Otolaryngology Vice Chair for Clinical Operations, Department of Otolaryngology – Head & Neck Surgery

Department of Pathology & Immunology

Neil W. Anderson, MD Associate Professor of Pathology and Immunology and of Pediatrics

Carey-Ann D. Burnham, PhD Professor of Pathology and Immunology, of Pediatrics, of Molecular Microbiology and of Medicine

Ali H. Ellebedy, PhD Associate Professor of Pathology and Immunology, of Medicine and of Molecular Microbiology

Bijal A. Parikh, MD, PhD Assistant Professor of Pathology and Immunology

Department of Pediatrics

Juliane Bubeck-Wardenburg, MD, PhD Donald B. Strominger Professor of Pediatrics Chief, Division of Pediatric Critical Care Medicine

Jason G. Newland, MD, MEd Professor of Pediatrics Vice Chair of Community Health and Strategic Planning Schnuck Family Endowed Chair in Pediatric Infectious Diseases SLCH

Rachel C. Orscheln, MD Associate Professor of Pediatrics

Erica G. Schmitt, MD, PhD Instructor in Pediatrics

Program in Physical Therapy

Steven B. Ambler, DPT, MPH, PhD

Associate Professor of Physical Therapy and of Orthopaedic Surgery Division Director of Professional Curriculum in Physical Therapy

Department of Psychiatry

Jessica A. Gold, MD Assistant Professor of Psychiatry

Ginger E. Nicol, MD, CEDS, Dipl ABOM Associate Professor of Psychiatry (Child)

Angela M. Reiersen, MD, MPE Associate Professor of Psychiatry (Child)

Mallinckrodt Institute of Radiology

Andrew J. Bierhals, MD, MPH Professor of Radiology, of Pediatrics and of Medicine Vice Chair, Community Radiology Vice Chair, Quality and Safety

James R. Duncan, MD, PhD Professor of Radiology Chief, Interventional Radiology

Vamsi R. Narra, MD Professor of Radiology Senior Vice Chair for Clinical Imaging Informatics and New Clinical Business Development

Katie D. Vo, MD Professor of Radiology Chief, Neuroradiology Department of Surgery

Department of Surgery

Tiffany M. Osborn, MD, MPH Professor of Surgery (General Surgery) and of Emergency Medicine

Presenting the 2023 Recipients

School of Medicine

DEPARTMENT OF ANESTHESIOLOGY

Enyo A. Ablordeppey, MD, MPH, FACEP, FCCM

Associate Professor of Anesthesiology and of Emergency Medicine Associate Vice Chair for Diversity, Equity and Inclusion

Following her appointment as the co-director of



the 7800 Intensive Care Unit (ICU) in 2020, Enyo A. Ablordeppey, MD, MPH, played a seminal role as a clinician caring for some of the sickest patients with COVID-19 while also providing institutional leadership during this most challenging time. Her clinical excellence and contributions as an intensive care physician during the pandemic were recognized nationally by her peers when she was appointed as a fellow of critical care medicine in 2020. Throughout the pandemic, Ablordeppey continued to prioritize being a dedicated and exemplary educator. Apart from her educational prowess at the School of Medicine, she also served as a guest professor for the Acute Care Nurse Practitioner Program at the Goldfarb School of Nursing. Throughout her career, she has been a beloved educator among trainees and students, and she served as director of our Critical Care Ultrasound Training Program. Ablordeppey has won numerous educational awards, including for her inspiring teaching despite the pressures imposed on her by COVID-19. After a national search, in 2021 Ablordeppey was selected as the inaugural associate vice chair for diversity, equity and inclusion (DEI) in the Department of Anesthesiology. In addition to her other roles, she prioritizes this important work, which was made all the more urgent and salient with the impacts of COVID-19 on our society and our institutions.

DEPARTMENT OF ANESTHESIOLOGY

Anne M. Drewry, MD

Associate Professor of Anesthesiology and of Critical Care Medicine Vice Chair, Department of Anesthesiology Chief, Division of Critical Care

Anne Drewry, MD, displayed extraordinary leadership and innovative excellence during the COVID-19 pandemic. In 2021, Drewry was appointed as vice chair of anesthesiology in acknowledgement of her many accomplishments, and in recognition of her compassionate, steadfast response to the pandemic. As division director, she directed the critical care clinical activities of several BJC HealthCare community hospitals as well as the surgical and cardiothoracic intensive care units (ICUs) at Barnes-Jewish Hospital. In response to the influx of critically ill patients, she helped expand the ICU footprint within BJC by 40% by arranging for additional midlevel and physician ICU coverage as well as helping to convert non-ICU spaces into functional ICU space. In addition, Drewry chaired the BJC COVID-19 Taskforce to help coordinate the critical care response to COVID-19 and standardize care and resources across the system ICUs. She was instrumental in coordinating the tele-critical care response to the pandemic, facilitating the collaboration between the tele-ICU and BJC Transfer Center to help place patients in the hospitals most appropriate for their conditions. Early in the pandemic, she increased staffing of the tele-ICU to remotely care for patients and allow other services/ consultants to remotely access patients through the tele-ICU audiovisual connections. While addressing staffing challenges, she prioritized the well-being of the APPs, residents and physicians in the division during an extremely stressful period for critical care clinicians. Drewry was awarded a COVETED award in 2021 for her outstanding contributions to the community, her peers and the Department of Anesthesiology during the pandemic.



DEPARTMENT OF ANESTHESIOLOGY

Thomas G. Kannampallil, PhD

Associate Professor of Anesthesiology Associate Professor of Computer Science and Engineering, School of Engineering and Applied Science Director, Acute Care Innovation Research Associate Chief Research Information Officer, School of Medicine



Thomas Kannampallil, PhD, was named the inaugural director of acute care innovative research following an extensive search in 2022. He used his expertise in systems management and research by leading the development of an institutional and regional data warehouse that aggregated comprehensive clinical data on COVID-19 patients; this data warehouse, in addition to being the central resource for several published studies (>25) and day-to-day operational decision making, was the basis for the institution's data sharing efforts for national registries such as N3C (National COVID Cohort Collaborative). During the early phase of the pandemic, Kannampallil was able to translate efforts into three large R01 grants. These grants were focused on developing informatics-inspired solutions to address the grand challenges facing the health care community – addressing the acute challenges associated with clinician wellness and turnover, integrating and streamlining telemedicine practice and its implications for care outcomes, and EHR-integrated behavioral interventions for managing the physical and mental health of older adults. Kannampallil's contributions in research and systems leadership continue to have long lasting effects on the department and the future of large-scale, multi-institutional "touchless trials."

DEPARTMENT OF ANESTHESIOLOGY

Uchenna R. Ofoma, MD, MS

Associate Professor of Anesthesiology

Uchenna Ofoma, MD, MS, was appointed as the director of Christian Hospital Intensive Care Unit (ICU) in 2020 when the critical care needs of the community were mounting greater each day due to COVID-19. The timing of his appointment was critical, and he rose to the occasion when he joined his colleagues in the frontline trenches, taking care of some of the most critically ill patients with COVID-19. He lead the helm of critical care through revamping hospital operations to optimize capabilities - working to increase the hospital's ICU bed capacity to more than twice its original size, expanding the ICU physician and advanced practice provider workforce to three times its original size, and optimizing the availability of scarce resources such as ventilators. With the acceleration of virtual care, Ofoma leveraged telemedicine ICU capabilities to take care of COVID-19 patients outside of the ICU at Christian Hospital. Ofoma's efforts helped to build organizational and staffing resilience throughout the pandemic. Aside from his formidable work in clinical leadership during the pandemic, Ofoma took the time to also become a PIA SAFE champion to address the societal impacts of COVID-19. This role required 10 weeks of training to become a trusted resource and ally for his colleagues where he provides support and guidance to his peers experiencing conflicts, microaggressions or negative behaviors. As a health services researcher, he focused his research on understanding national telemedicine critical care capacity, which has been shown during COVID-19 to be critically important for planning for future pandemics or other disruptions to health care delivery.



DEPARTMENT OF ANESTHESIOLOGY

Clare H. Ridley, MD

Assistant Professor of Anesthesiology and of Surgery

As the COVID-19 pandemic unfolded in 2020, Clare H. Ridley, MD, was appointed as the director of the Surgical COVID Intensive Care Unit (ICU) in the 8200 ICU in recognition of her excellent clinical leadership. Under this appointment, she has played a vital role in collaborating with the hospital and ICU nursing leadership to ensure an outstanding quality of care to critically ill patients, including many impacted by COVID-19. Despite increasing demands brought on by the pandemic, she continued to exceed expectations as the director of heart and lung transplant anesthesiology and as associate medical director of the CTICU. Throughout her career, Ridley has shown initiative in ensuring a culture of diversity, equity and inclusion – challenges that have been made all the more vital due to the impacts of COVID-19. Through her work as a PIA SAFE champion, Ridley underwent 10 weeks of training to become a trusted resource and ally for her colleagues. In this role, she provides support and guidance to her peers experiencing conflicts, microaggressions or negative behaviors. She also conducts meaningful research with a focus on teamwork training and safety outcomes in the CT operating rooms.

DEPARTMENT OF ANESTHESIOLOGY

Pratik Sinha, MD, PhD

Assistant Professor of Anesthesiology

Pratik Sinha, MD, PhD, joined the Department of Anesthesiology at the height of the COVID-19 pandemic in 2020, entering the Division of Critical Care and Division of Clinical and Translational Research. In assuming this vital role, Sinha applied his clinical expertise to care for patients in the surgical and cardiothoracic intensive care units (ICUs). He was able to leverage his prior experience in veno-venous ECMO to care for the high-throughput and unprecedented number of patients being offered this service at Barnes-Jewish Hospital. In collaboration with his colleagues in the cardiothoracic ICU, Sinha led the way to rapidly iterate and innovate best practice as data in the field emerged. Simultaneously, Sinha established a federally funded research program investigating precision medicine in sepsis and acute respiratory distress syndrome, resulting in several landmark publications. With a shift in the health care climate, he pivoted his research group to study COVID-19. He has published numerous studies evaluating the heterogeneity of COVID-19 and challenging the several unsubstantiated and unscientific dogmas that became rapidly entrenched during the pandemic. His research efforts have resulted in over 35 peer-reviewed manuscript publications. With demands on his clinical and research skill set, Sinha still found capacity to mentor several fellows, junior faculty, doctoral scholars and undergraduates. In 2021, he was recognized for his contributions to outstanding patient care, research and mentorship when he was awarded a COVETED award for contributions during the pandemic.



DEPARTMENT OF CELL BIOLOGY AND PHYSIOLOGY

Heather L. True, PhD

Professor of Cell Biology and Physiology David English Smith Professor of Medicine Associate Director, Roy and Diana Vagelos Division of Biology & Biomedical Sciences

During the COVID-19 pandemic, Heather True, PhD, led



curriculum reform with a vision for launching students' interdisciplinary research careers amid the most adverse circumstances. Part of that reform, Scientific Immersion, brings together students from varied programs with a faculty facilitator to plan experiments that advance the field. A weeklong discussion culminates in a group-written, NIH-style specific aims page, drawing from students' diverse backgrounds and the faculty member's expertise. True originally envisioned it as part of a "boot camp." Due to the pandemic, classes could not be held in person in the fall of 2020. Many students couldn't reach St. Louis or start research rotations at the onset of the semester. True volunteered to pivot and offer Immersion virtually as part of the fall onboarding experience. She recruited faculty, solicited topics, assembled student groups and launched Immersion in a Zoom-based world. The most impressive aspect is that it was lauded by both students and faculty. Students raved about the experience as an incredible launch to their graduate (and social) careers. Microbiologists got excited about neuroscience and vice versa. Immersion sharpened students' confidence in approaching fields of research beyond their comfort zone — a key to research that creates new knowledge. Leadership knew that True was onto something special and supported the 2021 effort by expanding Scientific Immersion to all DBBS students in all programs. With the return to in-person learning, this innovative program remains a critical element in the onboarding experience of PhD students.

DEPARTMENT OF DEVELOPMENTAL BIOLOGY

S. Kerry Kornfeld, MD, PhD

Professor of Developmental Biology

Kerry Kornfeld, MD, PhD, has served as co-director and taught in the Developmental, Regenerative and Stem Cell Biology Program for 17 years, including during the COVID-19 pandemic. He has also served as course master of Developmental Biology, a comprehensive course required for all PhD students in the Developmental, Regenerative and Stem Cell Biology Program in the Roy and Diana Vagelos Division of Biology & Biomedical Sciences – and the only course in the field of developmental biology offered to undergraduate students in Arts & Sciences and the McKelvey School of Engineering. It is taught by several faculty, and coordinating it — even in normal circumstances — is a significant responsibility that Kornfeld always meets in an exemplary way. The pandemic-imposed lockdowns of 2020 disrupted normal educational processes and required that Kornfeld orchestrate the transition of this complex course into a virtual format. He coordinated efforts with IT personnel, other faculty members and students to resume course lectures, journal clubs, grant writing and evaluation activities, and for exams to take place in the virtual format. Kornfeld succeeded in transitioning the course activities with minimal detrimental effect to the educational course objectives while keeping in mind the needs and well-being of the 20 graduate and undergraduate students enrolled in the course, as well as of the faculty. He did so while continuing the research efforts of his laboratory with several graduate students and postdoctoral fellows who also faced significant headwinds during the pandemic.



DEPARTMENT OF EMERGENCY MEDICINE

Stacey L. House, MD, PhD

Assistant Professor of Emergency Medicine Chief, Division of Research Vice Chair of Clinical Research in Emergency Medicine

Stacey L. House, MD, PhD, supported multiple university initiatives to respond to the COVID-19 pandemic. She served as an active member of both the COVID-19 Clinical Studies Committee and the COVID-19 Clinical Studies Prioritization Committee, reviewing clinical trials for COVID-19 therapeutics. At a time when it was difficult to find health care workers to conduct COVID-19 testing, House expanded the Emergency Care Research Core that she directs to provide COVID-19 testing for WashU ExpressCare as well as over 1000 hours of coverage for the Danforth Campus COVID-19 testing site. She also collaborated with investigators across specialties to plan and provide enrollment of over 2500 subjects in the university's COVID-19 sample biobank initiative as well as studies to support the development of the Elizabethe H. and James S. McDonnell III Genome Institute's saliva-based COVID-19 assay. House has also pursued her own research initiatives to respond to the COVID-19 pandemic. She has served as principal investigator for over 30 studies in the area of COVID-19 diagnostics which have enrolled over 7,000 subjects since the onset of the pandemic. Many of these studies were funded through the NIH RADx initiative to increase access to COVID-19 point-of-care and at-home testing platforms. She currently serves as the principal investigator for a multidisciplinary CDC UO1 focused on understanding immune response and vaccine effectiveness for COVID-19 vaccines in the real world.

DEPARTMENT OF EMERGENCY MEDICINE

Philip A. Mudd, MD, PhD

Assistant Professor of Emergency Medicine

In the earliest stages of the COVID-19 pandemic, Philip A. Mudd, MD, PhD, and his collaborator, Jane O'Halloran, MD, PhD, developed a university-wide biospecimen collection repository for COVID-19 patient samples modeled after an influenza repository he'd previously created. The biorepository study ultimately collected serial biospecimens from 500 individuals between March and September of 2020, including many of the first individuals diagnosed in the St. Louis area. Many of the subjects were followed for a year after their diagnosis. To date, the samples have been used in studies leading to more than 14 publications for Washington University researchers and have also been used to generate preliminary data for numerous federally funded research projects on campus. Mudd's own laboratory's work on COVID-19 immune responses has led to corresponding-author publications in Cell and Science Advances. His work on COVID-19 vaccines recently led to his first funded NIH R01. Most importantly, Mudd maintained a robust clinical workload throughout the pandemic, treating many of the first patients with this disease in the Emergency Department during personal protective equipment shortages and subsequent waves of infections that overwhelmed hospitals, resources and many of our dedicated health care coworkers. Mudd has served as a knowledge resource on COVID-19 diagnostics and treatments for fellow faculty in the department. He also served on a national task force to develop the Society for Academic Emergency Medicine's "COVID-19 Provider Toolkit" and "COVID-19 Patient Toolkit," which were published online just in time to provide diagnostic and treatment guidance prior to the Omicron wave.



DEPARTMENT OF GENETICS

Richard D. Head, MS

Professor of Genetics

Richard D. Head, MS, led a team of scientists that worked tirelessly to develop a novel test for detecting the SARS-CoV-2 virus during the COVID-19 pandemic. Their dedication, perseverance and expertise resulted in the successful development of a test that could accurately and quickly diagnose COVID-19 using a saliva sample rather than the nasal swab in common use at the time. The team took advantage of the infrastructure and expertise at the Elizabethe H. and James S. McDonnell III Genome Institute at Washington University and approached the challenge of developing a rapid, sensitive and less cumbersome viral test with creativity and resourcefulness. The team overcame many logistical hurdles to develop this test, and it is a testament to Head's leadership that this novel saliva-based COVID-19 test was ready to go within four months after the first confirmed cases in St. Louis. This test became widely used at the Danforth Campus, in the St. Louis school system, at hospitals on the Washington University Medical Campus and throughout the state of Missouri. The development of this test was made possible by Head's leadership and commitment to advancing health care via molecular genetics.

Douglas R. Adkins, MD

Professor of Medicine

Nationally recognized as an expert in head and neck cancer, Douglas R. Adkins, MD, is known for his commitment to advancing patient care through clinical research. He continued to provide the highest quality clinical care throughout the COVID-19 pandemic, accruing more patients to therapeutic clinical trials than any other physician within the Alvin J. Siteman Cancer Center. His

ability to sustain this tremendous level of productivity during the pandemic further highlights his commitment to excellence, sets an example for all faculty, and speaks to the way he motivates and supports his staff. Adkins adapted to the pandemic's challenges by using technology and adjusting to flexible coverage schedules that would enable his staff to maintain appropriate distancing without compromising quality of care. A natural teacher, Adkins is known for his calm demeanor and commitment to a teambased approach. He ensures all members of his group know that they are valued, both as individuals and as contributors to the overall mission. Adkins always puts the patient first. His patients are uniquely impacted by COVID-19, often requiring extensive supportive care and frequent visits to the clinic for evaluations that require patients to be unmasked. Throughout the pandemic, Adkins continued to support and advocate for his patients to receive the best care. He further demonstrated his commitment to patient care and safety in his role as the inaugural chair of the Siteman Standing Data and Safety Monitoring Board, which safeguards the interest of study participants by evaluating the overall conduct of institutional clinical research projects.



DEPARTMENT OF MEDICINE

Thomas M. Ciesielski, MD

Associate Professor of Medicine Vice Chair, Patient Safety

Thomas M. Ciesielski, MD, played an extraordinarily important role in clinical care, clinical operations and education during the COVID-19 pandemic. Ciesielski was engaged in the Incident Command Center (ICC) from Day One, helping ensure that all departments had access to personal protective equipment (PPE) as well as a rational plan for distribution and monitoring. He also worked closely with the Infection Prevention Team to facilitate the operational implementation of the renewal and disinfection of PPE. As a key leader of the ICC's medical branch, he disseminated information and communicated with residents, fellows and faculty across all divisions of the department. Ciesielski worked tirelessly as he managed clinical operations and rapid changes in policies and procedures for the first two years of COVID-19. He helped devise strategies for clinical operations, surge planning and the constant shifting in medical staff providers, residency teams and bed distribution. Very few medical services were put on hold or stopped during COVID-19 because of the nature of patient care required for chronically and critically ill patients. Ciesielski provided updated surge plans for staffing and backup staffing for all medicine firm teams and the intensive care units (ICUs); engaged fellows and residents from multiple services to cover COVID-19 patients in the ICUs; and worked with the ICC, critical care teams, the EICU and the transfer center to facilitate these operations. He remained calm, organized and thoughtful as he worked with multiple stakeholders to ensure the ongoing efficient operation of the Department of Medicine.



Vladimir N. Despotovic, MD

Associate Professor of Medicine

From the onset of the COVID-19 pandemic, Vladimir N. Despotovic, MD, was at the bedside in the Medical Intensive Care Unit (MICU), selflessly dedicated to his patients. At the time, there were no established guidelines or consensus on best practices for management of critically ill individuals with COVID-19 infection. Despotovic and colleagues worked to translate suggestions and opinions into practice, critically evaluating them and innovating in order to ensure optimal patient outcomes. This included developing protocols for performing high-risk invasive procedures such as endotracheal intubation and bronchoscopy in highly infectious patients. The personal sacrifice and risk they assumed cannot be exaggerated, especially when considering that the risk of infection and natural history of the infection were not well characterized at the time. Whether it was caring for patients, researching and evaluating the latest treatment protocols, or educating his colleagues, Despotovic led by example. He took the time to advocate for and comfort his patients and their families, while supporting and consoling other caregivers who were traumatized by the suffering they had witnessed. It is difficult to imagine how the MICU could have functioned as well as it did without his presence. His many responsibilities included scheduling coverage, surge planning, protocol development and implementation, and coordination of care with other services. He confronted these challenges with a methodical and collaborative approach, resulting in improvements in care while accounting for provider well-being. Despotovic's altruistic contributions to patient care, the community, and the well-being of our faculty and medical center staff cannot be overstated.



DEPARTMENT OF MEDICINE

Michael S. Diamond, MD, PhD

Professor of Medicine, of Molecular Microbiology and of Pathology and Immunology Herbert S. Gasser Professor



Michael S. Diamond, MD, PhD, a pioneer in the study of globally emerging RNA viruses, quickly employed his expertise towards understanding SARS-CoV-2 pathogenesis and has worked tirelessly to enable lifesaving vaccines and therapeutics. Early in the pandemic, he developed an animal model of SARS-CoV-2 that he made widely available while labs waited for ACE2 transgenic mouse colonies to be expanded. Since then, he has published over 100 leading papers on SARS-CoV-2, making important contributions in the development of monoclonal antibodies and novel vaccines that are under development. The Diamond laboratory leads efforts to study SARS-CoV-2 variants of concern. In the context of translational discoveries, it directly contributed to the discovery and characterization of the antibodies in Evusheld and Sotrovimab. It has also partnered with Moderna to develop and test bivalent vaccines against SARS-CoV-2 variants, including those granted emergency use authorization. In collaboration with David T. Curiel, MD, PhD, the Diamond laboratory developed and licensed a nasally delivered viral-vectored vaccine for prevention and reduction of transmission of SARS-CoV-2. It has been approved for use in India after phase 3 trials showed it to be safe and effective as a booster. Diamond and his team showed that this vaccine protected animals from not just disease but also infection, making it a candidate that could stem the spread and transmission of the virus. This vaccine exemplifies Diamond's dedication to producing real solutions to viral diseases. In addition to being a rigorous and innovative scientist, he is a generous colleague and dedicated mentor.

Elvin H. Geng, MD, MPH

Professor of Medicine

Elvin H. Geng, MD, MPH, provided outstanding service to clinical operations and to the St. Louis County Department of Public Health during the pandemic. He developed the LEMMA model that was used as the basis of modeling hospitalizations during the pandemic, allowing accurate prediction of the epidemic locally, which facilitated resource planning and use. He collaborated with the county health department to develop a prevalence study that informed public policy, and he served as an advisor to the Missouri Department of Health & Senior Services. Later in the epidemic, he collaborated closely with the city of St. Louis and St. Louis County to increase COVID vaccination rates in underrepresented populations. He published important papers that informed public policy – demonstrating the impact of the county's lockdown, racial disparities in the state's COVID testing rollout and later disparities in the vaccine rollout. He also published several important papers evaluating vaccine hesitancy. Even with this additional workload, his research group continued to perform high-quality and impactful HIV implementation science with 23 publications in this space during 2021 and 2023.



DEPARTMENT OF MEDICINE

Chien-Huan Chen, MD, PhD

Professor of Medicine

Chien-Huan Chen, MD, PhD is being honored for his selfless service and dedication to maintaining an exceptional level of quality and safety for gastroenterology services during the pandemic. Chen is the chief of the Section of General Gastroenterology and oversees both inpatient and outpatient activities, within clinics and in the endoscopy lab. His area of expertise is obscure gastrointestinal bleeding, an area which saw a surge in cases during the COVID-19 pandemic. Chen assumed oversight responsibility for multiple aspects of patient safety and quality efforts not only in the Division of Gastroenterology but also the Department of Medicine. He is a lead member of the GI Endoscopy Clinical Expert Council of the Center for Clinical Excellence within BJC HealthCare and played a key role in establishing best practices for inpatient gastroenterology patient management during COVID-19. He created policies to triage endoscopic procedures under extraordinarily challenging conditions with staff shortages. He also adapted our endoscopy labs and clinics to ensure staff and patient safety and maintain workflow. He established approaches that allowed the clinic to ramp up or down to accommodate COVID-19 surges and to pivot to telemedicine. He also led efforts to ensure proper personal protective equipment (PPE) usage in all areas and to optimize pre-procedure COVID-19 testing. He worked collaboratively with fellowship program leaders to adjust the inpatient consult services to allow fellow participation in the clinic and busy general medicine inpatient services.

Michael Y. Lin, MD

Associate Professor of Medicine

During the time of COVID-19, Michael Lin, MD, was the interim director of the Division of Hospital Medicine, leading the division masterfully in ways that greatly impacted COVID-19 patient care and education. At the outset of the pandemic, amid many unknowns, he played a key leadership role in developing a hospitalistbased care model, which protected the most vulnerable medical students, residents, fellows, senior faculty and those with health comorbidities. Under this model, hospitalists provided the vast majority of direct COVID-19 care, working many extra shifts to expand service during multiple surges. Ultimately, they cared for more hospitalized COVID patients than any other physician group in the St. Louis area. They also provided ongoing education and consult services to medical colleagues. Of particular note: Under his leadership, Han Li, MD, developed a COVID Hospitalist Manual for patient evaluation and management, which became the key resource to guide care at our medical center and beyond. Lin and his team also developed educational programs for residents and educational programs, policies and procedures for medical students to be engaged in COVID-19 care, as appropriate. A consummate leader, he was calm, proactive and always thinking about how to put patients first and to ensure his team had everything required to provide safe, effective care. In the beginning of the pandemic, when there was very limited personal protective equipment (PPE), Lin personally went to stores across the region to buy protective eyewear and PPE for his faculty members. His leadership is among the biggest reasons for the department and the hospital's success during the pandemic.



DEPARTMENT OF MEDICINE

Rachel M. Presti, MD, PhD

Associate Professor of Medicine

Rachel M. Presti, MD, PhD, was a leader in clinical and translational research during COVID-19. She converted her infectious diseases clinical research unit into a COVID-19 research group, conducting NIH-funded outpatient and inpatient clinical therapeutic trials as part of the ACTIV response, with Washington University being the leading site for enrollment in ACTIV-1. She also led local enrollment in clinical trials of the candidate COVID-19 vaccines and worked very closely with the local community to ensure reenrollment and acceptance in diverse communities. Together with Ali H. Ellebedy, PhD, and Michael Diamond, MD, PhD, she designed and led the translational research that furthered the understanding of the immunopathogenesis of SARS-CoV-2 infection, and in particular, the nature and durability of the immune response both to natural infection and to vaccine. Their work has led to important publications in Nature, Nature Medicine, Cell and other journals. These papers have been widely recognized as critical in our understanding of immunity to this virus and have been the subject of wide commentary in the scientific and popular press, including a commentary by Francis Collins in his then-regular National Institutes of Health (NIH) director's blog.



Anitha Vijayan, MD

Professor of Medicine

The Division of Nephrology's Anitha Vijayan, MD, demonstrated exceptional commitment to patients and caregivers during the pandemic through her leadership and resourcefulness. At the very start of the pandemic, Vijayan redesigned our inpatient nephrology consult structure to remove fellows, faculty with young children, and older



faculty from exposure to COVID-19-infected patients. She volunteered to be the first attending on this faculty-only service, which continued for 12 weeks. She also served in leadership roles with Barnes-Jewish Hospital and BJC HealthCare, serving as a subject-matter expert, developing triage guidelines, creating a nephrology/acute dialysis preparedness document and coordinating dialysis needs across all BJC medical centers, frequently re-allocating resources to hospitals with highest need across the BJC system in collaboration with the BJC command center. Anticipating subsequent surges, she worked with the BJC command center to procure 12 additional continuous renal replacement therapy machines for intensive care units. She worked with hospital supply-chain leadership to manage inventory for 14,300 dialysis needs. This required frequent substitution of machines and filters and communication with colleagues to ensure patients received adequate renal replacement therapy. She developed plans to put COVID-19-positive patients who needed dialysis into rooms with windows, which allowed nurses to monitor patients during treatments. She was absolutely instrumental in advocating to bring COVID-19 vaccines to Washington University outpatient dialysis units for our vulnerable dialysis population, which is predominantly African American. Reflecting her professionalism and selfless dedication, Vijayan volunteered without anyone asking; she was simply determined to rise up to meet the challenges our patients faced.

DEPARTMENT OF MEDICINE

David K. Warren, MD, MPH

Professor of Medicine

David K. Warren, MD, MPH, led the Washington University School of Medicine team that made major contributions to the operations of Barnes-Jewish Hospital during the pandemic. Warren serves as the chief hospital epidemiologist for Barnes-Jewish and, starting in March 2020, he joined the incident command for the hospital. For the ensuing 18 months, he worked daily to develop and implement policies on COVID-19 testing, guidelines for protecting health-care workers and dealing with infected or exposed healthcare workers, patient placement, policies for patient care in specialized inpatient and outpatient units, and resource planning. In the early part of the epidemic, this often required daily changes in policy (especially in the context of scarce resources). Warren's service was representative of many faculty members in the Division of Infectious Diseases, who coordinated responses and developed policies across the academic medical center, the university and BJC HealthCare.



DEPARTMENT OF MOLECULAR MICROBIOLOGY

Siyuan Ding, PhD

Assistant Professor of Molecular Microbiology

Since joining the Department of Molecular Microbiology in September 2019, Siyuan Ding, PhD, has established a thriving group working on enteric viral pathogens. The pandemic began just as he was getting his laboratory operational. He pivoted his research program to SARS-CoV-2 and has since been exceptionally productive, publishing 20 manuscripts and securing his first R01 on a first submission. He was among the first to show that the host cell proteases TMPRSS2 and TMPRSS4 serve as the relevant proteases for SARS-CoV-2 infection. This study, published in Science Immunology 2020, has been cited 800 times. He also was among the first to perform a screen of interferon-stimulated genes to identify any that specifically suppress SARS-CoV-2 infection. His group identified three candidates, including cholesterol 25-hydroxylase, and found that it works by impeding the ability of the SARS-CoV-2 spike protein to catalyze membrane fusion. This important study, published in December 2020 in PNAS, has been cited over 100 times. Both of these projects, initiated by Ding, engaged collaborators within and outside the institution, highlighting his ability to lead team-based science. Several other studies from his group may have a major impact, including developing an improved method for rotavirus genome manipulation, which allowed his group to study the role of specific viral proteins in pathogenesis and viral transmission. He is continuing to exploit the method to express heterologous genes, including those of other enteric pathogens with a view to advancing bivalent vaccines. He is also successfully mentoring several new post-doctoral fellows and graduate students.



DEPARTMENT OF NEUROLOGY

Omar H. Butt, MD, PhD

Instructor in Medicine

Omar H. Butt, MD, PhD, was a PGY4 neurology resident and one of two administrative chief residents in spring 2020 when COVID-19 appeared in our region. He had just submitted our residency rank list after an extremely busy and successful residency recruitment season. It takes a special person to be faced with a challenge of this magnitude during an incredibly busy time and to take it on with not only exceptional competence and poise but also with the kind of attitude and energy capable of inspiring others to do the same. The School of Medicine is extremely fortunate that he was just such a person. Administrative chief residents take on this role during their standard PGY4 year, performing administrative and leadership duties in addition to their clinical workload. That spring, Butt worked tirelessly to rearrange schedules, create contingency pull lists and navigate personal protective equipment (PPE) requests and distribution, all while serving as point person for residents, communicating via emails, phone calls and town hall meetings. He reassured peers and took on extra front-line work to help colleagues who were nervous about being in the hospital due to special circumstances, such as having a comorbidity or having young children at home. His calm commitment and clear communication carried our trainees through this challenging time. To see this kind of leadership and maturity in someone so early in their career truly shows the kind of excellence that we harbor in this institution and that motivates us all to be better.



DEPARTMENT OF NEUROLOGY

Gabriela de Bruin, MD

Professor of Neurology Vice Chair of Clinical Operations, Department of Neurology

Gabriela de Bruin, MD, played an outstanding role in supporting the Department of Neurology as clinical operations director during the COVID-19 pandemic. De Bruin led the clinical operations team in transitioning from 100% in-person to more than 25,000 telemedicine visits per year at the pandemic's peak. For care that had to remain in-person, she worked with clinic directors to implement new safety protocols and to train faculty and staff. She was the department point person regarding personal protective equipment (PPE) and exposure/quarantine recommendations and communicated these to faculty. It required no small amount of diplomacy to reassure some providers that the best response was to follow the expert advice of infectious disease colleagues to avoid anxiety-driven responses that harm patient care. De Bruin was also responsible for most inpatient schedules. She gathered faculty concerns about personal risk, vetted them with the infectious diseases team, and created a new schedule that removed faculty most at risk for severe disease from frontline work, then took on extra inpatient time herself to support this change. She also worked with the command center to create contingency plans to address provider shortages. It is impossible to convey in a letter the immense amount of time and dedication required to lead the clinical operations of a department of 160+ faculty, over 40 fellows and 800+ staff during such an unprecedented time. We were fortunate to have physician leaders like de Bruin who balanced their understanding of clinical work with leadership skills to manage difficult changes during this time.



DEPARTMENT OF NEUROLOGY

Salah G. Keyrouz, MD, FAHA

Professor of Neurology and of Neurological Surgery Chief, Section of Neurological Critical Care

As chief of the Section of Neurological Critical Care, Salah G. Keyrouz, MD, demonstrated outstanding leadership and exceptional clinical service that exceeded what could be expected of even the most committed physician in a time of crisis. During the COVID-19 pandemic our critical care physicians covered shifts in other intensive care units (ICUs) throughout the hospital to assist with the surge of critically ill patients with COVID-19. During this time, Keyrouz met with his faculty weekly to update them on the status of the pandemic and constant operational changes. In a time when finding the right balance between sufficient communication and not overwhelming providers with information, our critical care physicians felt informed, supported and motivated to step up to this challenge. All critical care providers volunteered for extra shifts and were proud of the contribution they were making — a situation attributable to Keyrouz's leadership and personal commitment to our patients and his faculty in face of this challenge. The Neurology and Neurosurgery Intensive Care Unit bed capacity changed constantly to accept overflow patients. Keyrouz coordinated with colleagues in vascular neurology, neurosurgery and hospital leadership to find solutions for caring for neurological critically ill patients while expanding capacity to care for COVID-19 patients throughout the system. He created schedules, communicated with faculty and leadership, reassured providers and did this while serving on the front lines, taking more shifts than anyone else in the department. His inspirational selfsacrifice and unwavering leadership allowed the critical care team to meet the challenge of that difficult time.

DEPARTMENT OF NEUROSCIENCE

Amy L. Bauernfeind, PhD, and team

Associate Professor of Anatomy in Neuroscience Vice Chair of Education, Department of Neuroscience

For outstanding work in medical education during the pandemic, the Department of Neuroscience recognizes Amy Bauernfeind, PhD, the department's vice chair for education, and her fellow anatomy faculty members:

Assistant Professor Kari L. Allen, PhD, Professor Krikor T. Dikranian, MD, PhD, Instructor Ahmad Jezzini, PhD, Assistant Professor Ashley C. Morhardt, PhD, and Assistant Professor Kristen A. Prufrock. The pandemic came at a particularly difficult time for our education team, as it prepared for the continued rollout of the MD Gateway Curriculum while also teaching the legacy curriculum. The pandemic required virtual learning — a particular challenge for a practical-based dissection curriculum. Their history of developing innovative teaching approaches allowed them to rapidly adapt, and our medical students progressed in their training without compromising educational quality. Among their many adaptations, the most impactful is arguably the roughly 12 anatomy videos they created. The videos feature previously dissected cadavers and instructor narration to explain important anatomical relationships and clinical relevance of the anatomy. The format was so effective that students continued to request video tutorials even as they returned to the anatomy lab in person, and to this day there is a demand for recorded material. Always receptive to student feedback, the team continues to produce high-quality videos that help students prepare for lab or review for retention. This team is a shining example of the ingenuity, dedication and collaboration that pulled the department through this challenging time and created durable solutions that continue to benefit our medical students.



DEPARTMENT OF OBSTETRICS & GYNECOLOGY

Jeannie C. Kelly, MD, MS

Associate Professor of Obstetrics and Gynecology Associate Director, Division of Maternal-Fetal Medicine Medical Director, Obstetrical Inpatient Services

Jeannie C. Kelly, MD, MS, is an exceptional clinician, researcher and administrator. In addition to her academic roles, she also serves as the medical director of obstetrical inpatient services and medical director for perinatal transport at Barnes-Jewish Hospital. She led the COVID-19 response for obstetrical inpatient services at Barnes-Jewish and served as the obstetrics representative on the BJC HealthCare COVID-19 Command Center. Through this role, she developed adaptive algorithms for managing COVID-19 in pregnancy, which were implemented across all BJC facilities. She has contributed to COVID-19 clinical research, publishing multiple manuscripts on the asymptomatic COVID-19 rate and COVID-19 testing update on the labor unit, severe COVID-19 disease during pregnancy, and the link between COVID-19 and hypertensive diseases of pregnancy. Kelly has particular expertise in the care of women with opiate-use disorders (OUD) in pregnancy and has received extramural and intramural funding. The COVID-19 pandemic exacerbated OUD. Yet Kelly continued to lead the innovative Clinic for Acceptance, Recovery and Empowerment (CARE). As a result, she received multiple awards for taking care of mothers and newborns affected by opioids and for providing superior patient experiences. Kelly remains dedicated to medical education through teaching and mentoring students, residents and fellows. She is also dedicated to educating the general public through local media outlets. Despite the pandemic's challenges, Kelly has continued to make incredible contributions locally and nationally through her leadership, clinical expertise, research and desire to educate.

PROGRAM IN OCCUPATIONAL THERAPY

Jessie L. Bricker, OTD, OTR/L

Instructor of Occupational Therapy and of Medicine Academic Fieldwork and Capstone Coordinator

Jessie L. Bricker, OTD, OTR/L is being recognized for her inspiring efforts during the COVID-19 pandemic. She and her team showed determination, compassion and innovation to support occupational therapy students' successful completion of clinical fieldwork. When the

pandemic began, the Program in Occupational Therapy (OT) lost 85% of its clinical fieldwork placement reservations, and nearly all Capstone rotations went virtual. Bricker led a team to devise steps to minimize any negative impact — including creating virtual one-week fieldwork experiences supervised and mentored by OT's nationwide network of alumni. Students were exposed to new formats for supervision and clinical care, such as telehealth observation with a case-based debriefing, which actually allowed for deeper clinical reasoning than a traditional rotation. Bricker also helped create and implement innovative community wellness fieldwork experiences in which OT students conducted needs assessments, planned and implemented new trainings, programs or resources, and measured outcomes in the community. This collaboration with community organizations strengthened partnerships, underscored our commitment to providing services in underserved areas, and allowed all OT students to graduate on their original timeline. The Fieldwork Office has added approximately 250 new fieldwork and Capstone affiliations since the pandemic began due to innovations implemented during this period. Many of the new affiliations are in community-based organizations that serve marginalized populations that do not have an OT on staff. Bricker's contributions have truly demonstrated exceptional educational ingenuity and leadership that has made a lasting impact in our program and in our commitment to our students and our community.



DEPARTMENT OF ORTHOPAEDIC SURGERY

Devyani M. Hunt, MD

Professor of Orthopaedic Surgery and of Neurology Chief, Division of Physical Medicine and Rehabilitation

Devyani M. Hunt, MD, is being honored for her important work supporting patients facing long-term effects of COVID-19 illness. Hunt is the co-founder and director of the Living Well Center. The Living Well Center focuses on aspects of healthy living to prevent disease and promote physical and psychosocial well-being. Located at Barnes-Jewish West County Hospital, it is a highly innovative program that has received attention in regional publications and has been profiled in Washington University publications. Early in the pandemic, Hunt recognized the importance of wellness in the context of COVID-19, particularly post-COVID-19 long-term symptoms. As COVID-19 and its impact on individuals became better known, she developed a forward-thinking program focusing on the treatment of patients recovering from COVID-19. These patients can experience lingering symptoms, including pain, fatigue, brain fog, stress, sleep and mood disorders. The Living Well Center's long-COVID care plans are personalized and innovative. They combine traditional clinical intervention — such as musculoskeletal care, physical therapy, speech therapy and occupational therapy - with lifestyle medicine such as nutritional counseling, behavioral health counseling, sleep hygiene counseling, acupuncture, medical massage and smoking cessation. Hunt leads this program and is heavily involved in individual patient care. Her efforts to support people with COVID-19 and to promote wellness in this population have been inspiring to many others. Her team, which includes physical therapists, counselors, nutritionists and health coaches, follows her lead and is highly dedicated to providing extraordinary and compassionate care to people who face the unknowns of long-term illness.

DEPARTMENT OF ORTHOPAEDIC SURGERY

Christopher M. McAndrew, MD

Associate Professor of Orthopaedic Surgery

Christopher M. McAndrew, MD, showed exceptional commitment to patient care during the COVID-19 pandemic. Early on, he performed the first surgery on a COVID-19-infected patient in the Barnes-Jewish Hospital operating room. At the time, there was great uncertainty regarding the safety of surgery in these patients for operating room team members. In fact, there was anecdotal evidence that surgery on these patients presented an extremely high risk for serious infection in participants in these surgeries. McAndrew volunteered to take on the responsibilities for this patient. Given the concerns, residents did not participate. Colleagues were struck by the professionalism, dedication and commitment demonstrated by McAndrew and the thoughtful approach that he had to other staff members involved in care. Throughout the remainder of the pandemic, he provided trauma care to many patients with COVID-19. He was extraordinary in the way he remained dedicated to professionalism. His actions, dedication, commitment and daily care represented our very best qualities as members of the Washington University faculty. He is a superb surgeon, routinely performing the most complex musculoskeletal trauma care, who was truly an inspiration during this difficult period.



DEPARTMENT OF OTOLARYNGOLOGY - HEAD & NECK SURGERY

M. Allison Ogden, MD

Professor of Otolaryngology Vice Chair for Clinical Operations, Department of Otolaryngology – Head & Neck Surgery

The Department of Otolaryngology — Head & Neck Surgery celebrates M. Allison Ogden, MD, for exceptional leadership during the COVID-19 pandemic. While many of the department's residents, faculty and staff went above and beyond the call of duty during the pandemic and deserve recognition, Ogden excelled, taking on a variety of clinical and administrative challenges that fostered the growth and development of the clinical enterprise and will have lasting impacts for years to come. Ogden uniquely saw the pandemic as an opportunity to improve upon processes for the betterment of the department and its patients and used her collegial and persuasive leadership skills to unify the department toward the needed changes. A few examples of Ogden's out-front leadership included collaborating with colleagues to reorganize outpatient clinic scheduling by level-loading subspecialty services and optimizing templates for all practitioners across the varied geographic service platforms and days of the week; optimizing and level-loading operating room scheduling and processes to align with the new clinic schedules; working with leadership and staff to ensure proper safety protocols were in place and help develop the needed platforms to implement telehealth; and establishing a COVID-19 operating room triage committee for the ethical scheduling of patients being considered for surgery. These were just a few of the many projects Ogden took on during the pandemic that have a lasting impact on the department today; the department remains indebted to her for her leadership and perseverance during this incredibly trying time.

DEPARTMENT OF PATHOLOGY & IMMUNOLOGY

Neil W. Anderson, MD

Associate Professor of Pathology and Immunology and of Pediatrics



Carey-Ann D. Burnham, PhD

Professor of Pathology and Immunology, of Pediatrics, of Molecular Microbiology and of Medicine

Bijal A. Parikh, MD, PhD

Assistant Professor of Pathology and Immunology





The Department of Pathology and Immunology honors Neil W. Anderson, MD, Carey-Ann D. Burnham, PhD, and Bijal A. Parikh, MD, PhD, for their leadership in clinical virology testing during the pandemic. Anderson, medical director, Molecular Infectious Disease Laboratory; Burnham, medical director, Barnes-Jewish Hospital Microbiology Laboratory; and Parikh, medical director, Barnes-Jewish Hospital Molecular Diagnostics Laboratory, were tasked with the unprecedented challenge of implementing clinical testing at Barnes-Jewish. Despite the announcement of a public health emergency on Feb. 4, 2020, it was not until Feb. 29 that the federal government allowed laboratories to implement in-house testing. Still, raw materials were in short supply, so Anderson, Burnham and Parikh utilized professional connections to obtain them. They developed the first clinical diagnostic COVID-19 test to be used at Barnes-Jewish by March 16, 2020. This implementation was rapid and complex, requiring collaboration and review by the FDA, and though it was a tremendous accomplishment, the demands placed on the testing team continued to intensify, and supply shortages and the need for large scale testing remained. Throughout 2020, the laboratories implemented seven different COVID-19 tests, multiple testing workflows, and processes for pooling samples to increase throughput, ultimately allowing the institution to deliver on the COVID-19 testing demands throughout the pandemic. At its peak, the laboratories performed over 2,000 tests per day. Anderson, Burnham and Parikh also used this opportunity to enhance the educational mission of the Department of Pathology and Immunology, collectively authoring peer-reviewed articles and engaging residents and fellows to aid projects.

DEPARTMENT OF PATHOLOGY & IMMUNOLOGY

Ali H. Ellebedy, PhD

Associate Professor of Pathology and Immunology, of Medicine and of Molecular Microbiology

Ali H. Ellebedy, PhD, has made astounding contributions to COVID-19 research that have directly impacted human health. When the scramble began to develop a vaccine against the SARS-CoV-2 virus, Ellebedy's work on the influenza virus stood out. First, using the human lymph node analyses he developed for flu, Ellebedy's lab quickly assessed how immune responses, specifically B cell responses, occur in COVID-19 patients and those recovering or recovered from it. Second, Ellebedy and his team (along with Michael S. Diamond, MD, PhD, and his lab) were instrumental in detailing responses in people who took the experimental COVID-19 vaccinations developed by Moderna (and Pfizer). This testing of responses and development of longstanding memory B cells in humans was instrumental in improving the vaccinations. Third, as the COVID-19 vaccination strategy via mRNA vaccines was entirely new, Ellebedy's studies on how immune responses are initiated in vaccinated individuals, how long it lasts, the type(s) of responses and maturation of antibody responses post-vaccination were all truly groundbreaking. Lastly, Ellebedy secured multiple grants via federal and industry sources, which have allowed training of many new individuals in influenza and COVID-19 research. Over 2020 and 2021, Ellebedy's team published 41 manuscripts, and his work has been acknowledged by Anthony Fauci and many other leading scientists around the world. The volume, quality and rapidity of this work, performed in the midst of shutdowns and laboratory restrictions, has improved pandemic responses and brought tremendous national and international positive exposure to Washington University.



DEPARTMENT OF PEDIATRICS

Juliane Bubeck-Wardenburg, MD, PhD

Donald B. Strominger Professor of Pediatrics Chief, Division of Pediatric Critical Care Medicine

When the COVID-19 emergency hit and scenes from New York dominated the news, Juliane Bubeck-Wardenburg, MD, PhD, began to plan for a worst-case scenario in St. Louis, envisioning a pediatric COVID-19 unit that could provide intensive care to dozens of sick children. Pediatric intensive care leaders around the country were doing the same, but Bubeck-Wardenburg developed a unique, masterful approach. She recognized that if COVID-19 cases overwhelmed our hospital system, physicians could be redeployed in any number of unfamiliar spaces. In a stroke of administrative genius, she set up her unit so that physicians of nearly any skill set could safely work. She enlisted pediatric anesthesia to perform all intubations and airway management and pediatric surgery to place the central lines. She created a schedule that guaranteed an intensivist inhouse at all times for backup and assistance, provided training resources for covering physicians, arranged a sign-up schedule and offered compensation. She had the team program an Epic location for the unit, then developed a specific order set, streamlined note templates, and created a step-by-step manual with everything a covering physician would need: day and night shift instructions, who was to call the primary care physician - the sort of details that are easy to overlook and that aren't appreciated except in their absence. As a result of her efforts, the St. Louis Children's Hospital COVID-19 unit could accommodate redeployed physicians with just about any level of clinical skill without compromising patient safety and while reducing uncertainty and stress on the provider team.

DEPARTMENT OF PEDIATRICS

Jason G. Newland, MD, MEd

Professor of Pediatrics

Vice Chair of Community Health and Strategic Planning Schnuck Family Endowed Chair in Pediatric Infectious Diseases SLCH

Jason G. Newland, MD, MEd, served as the public "face" of the pediatric COVID-19 pandemic for the St. Louis metropolitan area, and his work exerted impacts well beyond the region. First, as the COVID-19 threat emerged globally, he pivoted the infrastructure of his SHARPS Network (comprising 70+ children's hospitals sharing information on antimicrobial use and resistance) to become the hub for national conversations among pediatric infectious disease groups about COVID-19 testing, guarantine and school attendance. Together, Newland, Rachel C. Orscheln, MD, and David A. Rosen, MD, PhD, distilled these conversations into algorithms for school administrators and nurses to manage cases. Second, with the help of NIH P50 and CDC OTA grants, he performed extensive community-engaged research, collecting thousands of student nasal swabs over a year to pinpoint the epidemiology of COVID-19 spread within schools in underserved areas of St. Louis. This provided evolving foundational data informing schools' management of COVID-19 and enabled students to get back to the classroom faster. Third, he served as site principal investigator for pediatric trials of the Moderna COVID-19 mRNA vaccine at Washington University. In total, Newland has published 16 papers on COVID-19, many of which served as or informed national guidelines at different stages of the pandemic. Finally, Newland undertook innumerable media opportunities, with the sometimes difficult and stressful goal of providing the St. Louis community with scientifically accurate, practical advice and information. Despite these challenges, Newland maintained a straightforward, professional, down-to-earth approach that effectively delivered timely and accurate messaging to patients and families.



DEPARTMENT OF PEDIATRICS

Rachel C. Orscheln, MD

Associate Professor of Pediatrics

Rachel C. Orscheln, MD, has served key roles that have enabled the St. Louis community and its children to weather the COVID-19 pandemic. As the clinical director within the Division of Pediatric Infectious Diseases and an attending on the immunocompromised infectious disease service, Orscheln became the go-to resource for oncology, stem cell and solid-organ transplant services. She developed guidelines for managing COVID-19 infection and exposure in these vulnerable patient populations, working with physicians and nurse practitioners to constantly update approaches as new virologic data, diagnostics and therapeutic options became available. Alongside Jason G. Newland, MD, MEd, and David A. Rosen, MD, PhD, she developed guidance for K-12 schools to manage infections, isolation, quarantine and a safe return to in-person learning. She gave regular updates to school administrators, held dozens of educational sessions with school nurses, and staffed town halls and parent Q&A sessions at local school districts. Her work extended statewide, as she served as the pediatric infectious disease expert for the Missouri Department of Elementary and Secondary Education (DESE), participating in webinars and attending meetings and press events with the governor and state officials regarding COVID-19 management in schools and day care facilities. For her distinguished work, Orscheln received the Friends of Education Award from Missouri DESE in 2022. Beyond these duties, Orscheln published 10 papers regarding COVID-19 management in schools and transplant populations and made media appearances with all the local TV stations, NBC's Today Show, BBC News, the New York Times and more.

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DEPARTMENT OF PEDIATRICS

Erica G. Schmitt, MD, PhD

Instructor in Pediatrics

Erica G. Schmitt, MD, PhD, played a critical role for the Division of Rheumatology and Immunology in the Department of Pediatrics during COVID-19. Multisystem inflammatory syndrome in children (MIS-C) was first noted in spring 2020 as a hyperinflammatory, dysregulated immune response to SARS-CoV-2 in children. Shortly thereafter, Schmitt helped develop the institution's pedia



thereafter, Schmitt helped develop the institution's pediatric guidelines for the necessary interdisciplinary evaluation and management of MIS-C patients. She and colleagues regularly reviewed expert guidelines, the emerging literature and our own institutional experience to update subsequent versions of the WUSM guidelines. As of July 2022, Schmitt leads this working group, which represents a collaboration between the pediatric divisions of Rheumatology and Immunology, Infectious Diseases, Hospital Medicine, Critical Care Medicine, Cardiology, Hematology and Oncology, as well as the Emergency Department and pharmacy. Additionally, in December 2021, the FDA granted an emergency use authorization for Evusheld, a long-acting monoclonal antibody that offered pre-exposure prophylaxis to help protect immunocompromised patients, amongst others, against COVID-19. Initially, quantities of the medication were limited, and Schmitt worked to identify immune-suppressed and immunedeficient patients at highest risk within the department, drafted a letter and/or MyChart message to patients who qualified, and created a script to guide nurses and providers as they counseled patients and administered the medication. As access to the medication improved, Schmitt contacted additional patients at high risk in a tiered fashion, and eventually the department was able to offer the medication to all of those who gualified.

PROGRAM IN PHYSICAL THERAPY

Steven B. Ambler, DPT, MPH, PhD

Associate Professor of Physical Therapy and of Orthopaedic Surgery Director, Division of Professional Curriculum in Physical Therapy

When the pandemic emerged, students in the Doctor of Physical Therapy (DPT) program had already returned to campus. Within two days of campus closure, Steven B. Ambler,

DPT, MPH, PhD, re-imagined the DPT curriculum and implemented his vision to allow students to continue their studies remotely with minimal disruptions. This was no small feat, as Ambler needed to rally and support faculty and staff, optimize use of available resources, communicate clearly and effectively with multiple stakeholders and be a role model of calm resilience. He did all of this expertly, and more. In the midst of this upheaval and reinvention of the existing curriculum, Ambler also led an extensive curriculum renewal process that was initiated prior to the pandemic and could have easily been put aside during the acute crisis. However, Ambler moved ahead, recognizing the value of a forward-looking goal for faculty to unite around rather than getting mired in the day-to-day challenges of pandemic life. Ambler astutely guided faculty to use skills gained and materials developed out of necessity in delivering the existing curriculum to inform the renewal process, finding silver linings in unexpected places. Thanks to Ambler's leadership, the curriculum renewal process proceeded according to the original timeline, and Washington University launched the first fully competency-based DPT curriculum in the nation in fall 2021. Ambler's exemplary efforts are to be commended not only for keeping the program going in the face of adversity, but for keeping Washington University at the forefront of physical therapy education nationally.

DEPARTMENT OF PSYCHIATRY

Jessica A. Gold, MD

Assistant Professor of Psychiatry

Jessica A. Gold, MD, played a key role in the Washington University Community Support team that was organized in response to the COVID-19 pandemic to provide mental health and wellness resources to Washington University employees, particularly front-line health-care workers. The team's goal was to ensure employee well-being by providing a coordinated emotional support program to



by providing a coordinated emotional support program to all employees impacted by the pandemic and beyond. This support team provided more than 6,200 hours of volunteer services including approximately 1,000 hours of hotline coverage, 24 Zoom groups to more than 1,000 employees, 14 mindfulness sessions attended by more than 800 employees, approximately 300 monthly mental health outpatient telehealth visits for employees and their dependents, and more than 50 outreach events, interviews and articles. Additionally, Gold served as a mental health expert to Human Resources, advising them on various aspects of mental health and well-being, including developing the COVID-19 employee well-being support portal, @WashUTogether Care and Connection toolkit, and a marketing campaign to promote utilization of mental health and wellness resources. She also developed a database of mental health and wellness resources and applications for self-care that was included on the COVID-19 employee well-being support portal.

DEPARTMENT OF PSYCHIATRY

Ginger E. Nicol, MD, CEDS, Dipl ABOM

Associate Professor of Psychiatry (Child)

Ginger E. Nicol, MD, CEDS, Dipl ABOM, played an important role in the Washington University Community Support team that was organized in response to the COVID-19 pandemic to provide mental health and wellness resources to Washington University employees, particularly front-line health-care workers. The team's goal was to ensure employee well-being by providing a coordinated emotional support program to all employees impacted by the pandemic and beyond. This support team provided more than 6,200 hours of volunteer services including approximately 1,000 hours of hotline coverage, 24 Zoom groups to more than 1,000 employees, 14 mindfulness sessions attended by more than 800 employees, approximately 300 monthly mental health outpatient telehealth visits for employees and their dependents, and more than 50 outreach events, interviews and articles. Nicol collaborated with the John T. Milliken Department of Medicine Healthy Work Center, directed by Bradley Evanoff, MD, MPH, to first develop a needs assessment to solicit feedback from employees and then incorporate the feedback into the ongoing development of mental health and wellness services and resources during the pandemic. The study, Washington University Needs Assessment (WUNA), provided data for the community support team to develop tools, services and mental health resources. Based on these data, Nicol submitted and was awarded a \$3 million grant by the U.S. Department of Health and Human Services' Health Resources and Services Administration, entitled Promoting Resilience and Mental Health Among Health Professional Workforce.



DEPARTMENT OF PSYCHIATRY

Angela M. Reiersen, MD, MPE

Associate Professor of Psychiatry (Child)

In early March 2020, Angela M. Reiersen, MD, MPE, made the observation that many adults with initially mild COVID-19 illness would deteriorate in the second week of the illness, requiring supplemental oxygen, hospitalization and intensive care. She reasoned that this delayed worsening was likely due to the immune response of the



worsening was likely due to the immune response of the patient, and that an existing drug — the medication fluvoxamine, which is used for psychiatric illness — would dampen this hyperinflammation, thereby improving clinical outcomes. Through her brilliant insight and perseverance, she helped lead a clinical trial at Washington University that provided the initial proof of this idea, and then she helped oversee efforts to replicate the finding and further study the underlying mechanism. As a result, fluvoxamine was one of the first drugs demonstrated to reduce deterioration in COVID-19 patients and is still being used in lowerand middle-income countries where more expensive medications are unavailable.

MALLINCKRODT INSTITUTE OF RADIOLOGY

Andrew J. Bierhals, MD, MPH

Professor of Radiology, of Pediatrics and of Medicine Vice Chair, Community Radiology Vice Chair, Quality and Safety

Andrew J. Bierhals, MD, MPH, worked tirelessly throughout the pandemic to develop and update the clinical protocols and safety efforts of Mallinckrodt Institute of Radiology (MIR). While Bierhals is based in Barnes-Jewish Hospital, his efforts extended and impacted the nine hospitals MIR serves and were highly successful in keeping patients and the entire radiology team safe. Bierhals and his office developed radiology workflows, room cleaning, technologist and radiologist protections, and COVID-19 protocols. With his oversight on weekly and sometimes daily calls, protocols were put in place to minimize risks both from patients and to patients, while assuring radiology services were safely delivered in a timely fashion. From N-95 fittings to vaccinations to aerosol procedure risk mitigations to refining workroom setups and imaging protocols, Bierhals led the safety charge with vigor, commitment and wisdom.



MALLINCKRODT INSTITUTE OF RADIOLOGY

James R. Duncan, MD, PhD

Professor of Radiology Chief, Interventional Radiology

James R. Duncan, MD, PhD, developed protocols and led by example, delivering interventional radiology procedures and care to the sickest of COVID-19 patients while maintaining safety for faculty and trainees. Serving on the front line, along with the entire interventional radiology team, Duncan developed bedside approaches for dealing with complex COVID-19 cases including drainage of pleural effusions under U.S. guidance. He and his team placed many central access lines in COVID-19 patients at the bedside. Duncan also managed interventional radiology procedures in COVID-19 patients in the interventional radiology suites. He led these complex procedures, often dealing with clotting issues, in an atmospherically controlled environment, which maximized patient and staff safety. Much of this work included "on the fly" adjustments to the significant complexities of COVID-19 patient management. Interventional radiology patient volumes increased during the pandemic, as interventional radiology procedures were often used as an alternative to surgery. Duncan was often the first one in the room to care for the patient, sparing residents and fellows some of the difficult front-line exposures they might otherwise have faced.



MALLINCKRODT INSTITUTE OF RADIOLOGY

Vamsi R. Narra, MD

Professor of Radiology Senior Vice Chair for Clinical Imaging Informatics and New Clinical Business Development

Vamsi R. Narra, MD, spearheaded the Mallinckrodt Institute of Radiology's use of remote reading rooms scattered about the medical center, off-site and at physician homes to ensure MIR could continue to interpret radiology images throughout the pandemic. Narra quickly identified the rapidly growing scale of the pandemic and the necessity to separate reading areas to minimize the risks of cross-infection among radiologists and patients. He worked closely with Katie D. Vo, MD, to help MIR identify and procure reading room spaces separate from the medical center and from the Emergency Department, including new reading rooms in remote Washington University and BJC HealthCare buildings. In addition, he developed new methods and processes for deploying workstations at radiologists' homes. This allowed radiologists who had been exposed to COVID-19 to continue to work and deliver care to patients while minimizing further exposure. Narra was also instrumental in developing new approaches for resident education during scan reading, allowing trainees to continue learning at a distance. Overall, his major contributions in the IT space allowed MIR to safely deliver diagnostic services throughout the pandemic.



MALLINCKRODT INSTITUTE OF RADIOLOGY

Katie D. Vo, MD

Professor of Radiology Chief, Neuroradiology

Katie D. Vo, MD, provided key leadership for the Mallinckrodt Institute of Radiology during the pandemic in multiple ways. She led the extremely busy neuroradiology practice from a compact reading room situation, where the high density of faculty and trainees was unsafe due to the risk of co-infections. Vo worked closely with Vamsi R. Narra, MD, to deploy decentralized reading rooms at multiple locations remote from Barnes-Jewish Hospital as well as at individual radiologists' homes to continue to deliver high-level neuroradiology interpretations in a timely fashion for patients. She also developed workflows for trainee education which included regular teaching conferences and Zoom read-out sessions. These workflows were effective but not as efficient as in-person readings and education; still, Vo managed to keep her large team engaged and continued to address all of the radiology department's missions. When COVID-19 numbers were reduced, she and her team were among the first to return to the reading rooms to enhance patient care and trainee education. Vo's leadership by example was key to radiology succeeding during the pandemic.



DEPARTMENT OF SURGERY

Tiffany M. Osborn, MD, MPH

Professor of Surgery (General Surgery) and of Emergency Medicine

While serving as Barnes-Jewish Hospital director of sepsis quality improvement and the BJC HealthCare sepsis QI physician champion, Tiffany M. Osborn, MD, MPH, worked with the hospital and health system COVID-19 Incident Command Centers on several projects. As director of the COVID-19 Critical Care Task Force, she enlisted leaders from



COVID-19 Critical Care Task Force, she enlisted leaders from many disciplines to effectively research, develop, distribute and continually update important clinical guidance utilized across the hospital's service lines. Ultimately, every guidance Osborn's team developed became a template for other Hospital Service Organizations across BJC. As COVID-19 clinical demands increased and treatments remained limited, patient care required innovative, progressive strategies. Washington University and Barnes-Jewish led the region by offering convalescent plasma. As director of the COVID-19 Convalescent Plasma Program (CCP), Osborn's team developed workflows, reference tools, EPIC/EMR tools, quality improvement monitoring and process improvement, increasing the number of patients receiving CCP by 150%. Handpicked to oversee a system providing equitable deployment of constrained resources, Osborn developed a Contingency and Crisis Standards of Care Program to be deployed if there were more patients requiring a lifesaving resource than what Washington University and Barnes-Jewish had available. This process required collaboration with key stakeholders across the BJC system, the St. Louis region and the Missouri Hospital Association. Osborn and her team then integrated this work into Barnes-Jewish emergency preparedness as an ongoing program. In addition, Osborn delivered essential health care and advocacy information across the community through more than 50 media appearances including Fox News, CNN, NPR, The Associated Press and local outlets.



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