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NEUROSCIENCE, DIVERSITY, EQUITY & INCLUSION

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FALL 2020

SAINT LOUIS

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A LIFE DEDICATED TO THE STUDY OF NEUROSCIENCE REQUIRES AN OPEN MIND, THE ABILITY TO MAKE REMARKABLE CONNECTIONS WITH PEOPLE AND IDEAS, AND THE CURIOSITY TO DISCOVER HOW GROUNDBREAKING IDEAS CAN GERMINATE FROM UNEXPECTED RELATIONSHIPS.

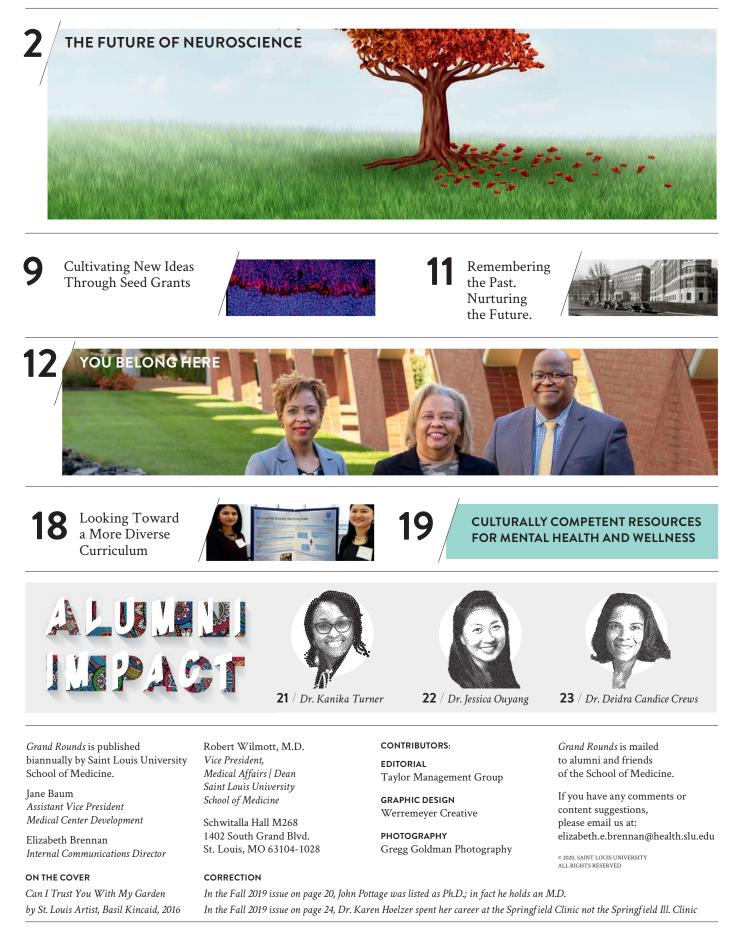
Above all, it requires an unwavering commitment to the service of humanity–and to the diversity that creates the interwoven fabric that connects us to one another.

At Saint Louis University's School of Medicine and the Center for Neuroscience, a commitment to diversity, equity, and inclusion permeates the research, development, and innovative breakthroughs that occur daily. Center for Neuroscience members, within the context of the Saint Louis University School of Medicine, are mindful of the health disparities they are working to level through the lens of neuroscience. They see the entire individual, the broader community, and the global stage as the platform for neuroscience discovery—working to address the diseases of the brain and the nervous system; and aggressively closing the long-standing equity gaps within medicine.

AN UNWAVERING COMMITMENT TO THE SERVICE OF HUMANITY.

AT SAINT LOUIS UNIVERSITY, QUALITY MEDICAL CARE AND EMPATHY KNOW NO BOUNDS. AT THE CENTER FOR NEUROSCIENCE, WHILE THE WORK BEGINS WITH THE NERVOUS SYSTEM FUNCTION-IT COMES FROM THE HEART.







THE FUTURE OF NEUROSCIENCE, FOR THE SERVICE OF HUMANITY

UNDERSTANDING HOW TO TREAT DISEASES OF THE BRAIN AND NERVOUS SYSTEM, LIKE ALS, ALZHEIMER'S DISEASE, DEMENTIA, AND PAIN, REQUIRES MORE THAN JUST RESEARCH, DISCOVERIES, AND DEVELOPMENT IN ONE SCIENTIFIC DISCIPLINE, BUT RATHER A MULTIDISCIPLINARY APPROACH THAT BRINGS TOGETHER SEVERAL EXPERTS ACROSS DISCIPLINES, ALL OF WHOM ARE COMMITTED TO BETTER UNDERSTANDING HOW NEUROSCIENCE WORKS. AT SAINT LOUIS UNIVERSITY'S HENRY AND AMELIA NASRALLAH CENTER FOR NEUROSCIENCE, RESEARCHERS AND CLINICIANS FROM ACROSS THE UNIVERSITY UNITE AROUND THIS SHARED MISSION, EXCHANGING IDEAS, PARTNERING ON INITIATIVES, AND COLLABORATING TO SOLVE SOME OF THE WORLD'S MOST PRESSING HEALTH ISSUES.

> DANIELA SALVEMINI, Ph.D. Director of the Center for Neuroscience

66/ 99 BECAUSE OF THE OPPORTUNITIES I HAVE AT THE CENTER, MY LAB HAS ALREADY STARTED COLLABORATIONS WITH OTHER GROUPS.

-YUNA AYALA, Ph.D.

A MULTIDISCIPLINARY APPROACH TO NEUROSCIENCE

The Henry and Amelia Nasrallah Center for Neuroscience fosters multidisciplinary neuroscience research ranging from molecular to clinical studies. The Center currently comprises more than 90 members, including faculty, undergraduate students, postdoctoral fellows, and staff across 27 departments of the University. The Center provides a unifying collaborative framework for researchers to discover nervous system function that will lead to translational discoveries and invention of new approaches to treat nervous system disorders. The Center has a strong emphasis on chronic pain but also focuses on cognitive dysfunction, such as Alzheimer's disease, traumatic brain injury, ALS, and neurological diseases.

As Daniela Salvemini, Ph.D., Director of the Center for Neuroscience, says, "We want to understand how the brain works and how the brain is involved in diseases. These span orphan diseases to chronic pain, to traumatic brain injuries, to how chemotherapy alters the wiring of the nervous system to cause pain, as well as cognitive impairment. By understanding how these pathways are engaged and drive to disease, we will work to develop novel therapies."

COLLABORATION AT THE CENTER OF IT ALL

Before the Center for Neuroscience, the work around neuroscience at SLU in different disciplines was siloed. Now, as the Center has grown and the infrastructure is in place, collaboration has become a critical part of each members' neuroscience work. The Center provides weekly email communications, a central database that lists all of the members and their areas of specialization, and symposia where members present their work. Most importantly, the Center gives University scientists opportunities to connect with one another.



YUNA AYALA, Ph.D.

Yuna Ayala, Ph.D., an associate professor in the Department of Biochemistry and Molecular Biology and a member of the Center for Neuroscience, whose research focuses on the fundamental mechanisms that underlie neurological disorders, specifically neurodegeneration,

such as ALS, Alzheimer's disease, and chronic traumatic encephalopathy, says, "Because of the opportunities I have at the Center, my lab has already started collaborations with other groups." One collaboration she is particularly excited about is with Susan Farr, Ph.D., in the Department of Geriatrics, who studies traumatic brain injury (TBI), which can result from concussions. "TBI is characterized by the accumulation of these clumps of the protein that we study, TDP-43," says Dr. Ayala. "However, very little is known about how these clumps appear. So we have started collaborating with Dr. Farr to see whether we can accurately and reproducibly study TDP-43 accumulation in mouse models of TBI. And I think it has a lot of different implications in society because this affects veterans and athletes, and it's also connected to various forms of dementia and ALS."

The work of the Center extends far beyond the walls of the School of Medicine. As an engineer, Silviya Zustiak, Ph.D., an associate professor of biomedical engineering, has a specific way to approach and solve problems. "I could work for years to develop the solution only to learn that doctors don't want it, or that patients don't want it, or that it wasn't the right approach," she says. To that end, the Center for Neuroscience provides a platform where scientists and clinicians can broadcast their

⁶⁶/⁹⁹ THE CENTER HAS BEEN AMAZING FOR THE UNIVERSITY BECAUSE IT'S SUCH AN EXCELLENT VENUE TO BRING RESEARCHERS WITH SIMILAR OR TANGENTIAL INTERESTS TOGETHER, HELP THEM EXCHANGE IDEAS, SEEK OUT THE NECESSARY EXPERTISE, AND FIND THE MISSING LINK FOR THAT NEXT BIG SCIENTIFIC DISCOVERY.

-SILVIYA ZUSTIAK, Ph.D.



work and meet others who have a common interest, but may perhaps bring a different perspective or approach. "This is really where the magic happens," says Dr. Zustiak. "The Center has been amazing for the University because it's such an excellent venue to bring researchers with similar or

SILVIYA ZUSTIAK, Ph.D.

tangential interests together, help them exchange ideas, seek out the necessary expertise, and find the missing link for that next big scientific discovery. It allows us to expand our horizons and to have access to resources or equipment that we wouldn't have otherwise. So it really impacts the quality and reach of our research. Because of the Center, our research is more impactful, allowing us to answer bigger questions and ultimately bring our discoveries to patients faster."

Dr. Zustiak, whose work centers on hydrogel biomaterials for drug delivery and tissue engineering applications (with a focus on brain cancer), needed a neuroscientist to complement her work. "As part of the Center, I was able to present our work and get people excited," she says. "And one of those people happened to be a neuroscientist." The two are now collaborating. One of the most important aspects of the Center for Neuroscience is that it fosters a robust undergraduate neuroscience program, with more than 300 undergraduate students currently involved and often collaborating with more senior scientists. "We're interested in developing future scientists," says Dr. Salvemini. "So mentoring is a very important component of our Center because the impact we can have on their careers is substantial."

BUILDING A CENTER FOR EXCELLENCE

As part of the Center for Neuroscience Executive Leadership Committee, George Grossberg, M.D., with the Department of Psychiatry and Behavioral Neuroscience, is an integral component of the organizational structure of the Center for Neuroscience, helping to foster collaboration, attract diverse grants, and propagate the ideals of the Center within the University community, as well as the larger St. Louis community. "One of the primary goals of the Center is to educate," says Dr. Grossberg. "Educate our community, educate the metropolitan area, even educate on the national level about all the contributions that our faculty are making to better understand brain- and nervous-system-related disorders."

As with many members of the Center for Neuroscience, Dr. Grossberg profoundly believes in the mission of Saint Louis University: "The pursuit of truth for the greater glory

66/99 ONE OF THE PRIMARY GOALS OF THE CENTER IS TO EDUCATE... EDUCATE OUR COMMUNITY, EDUCATE THE METROPOLITAN AREA, EVEN EDUCATE ON THE NATIONAL LEVEL ABOUT ALL THE CONTRIBUTIONS THAT OUR FACULTY ARE MAKING TO BETTER UNDERSTAND BRAIN-AND NERVOUS-SYSTEM-RELATED DISORDERS.

-GEORGE GROSSBERG, M.D.



of God and for the service of humanity." Nothing exemplifies this better than the work of Dr. Grossberg and his colleagues at the Center for Neuroscience. "You think about having a disorder like dementia or schizophrenia, or having a family member suffer from a neurological disorder," he says. "One of the missions of the University and our Center is to give people hope and to provide for

GEORGE GROSSBERG, M.D.

them state-of-the-art treatment to improve their quality of life, as well as the quality of life of their loved ones and caregivers."

Further, central nervous system disorders increasingly affect underprivileged populations, as there is a racial disparity in how chronic pain, dementia, anxiety, depression, and other neurological disorders are treated. According to the Association of American Medical Colleges, "A meta-analysis of 20 years of studies covering many sources of pain in numerous settings found that Black/African American patients were 22% less likely than white patients to receive any pain medication" (Sabin, January 2020). Additionally, "Hispanic people were 40% less likely to see an outpatient neurologist than Whites, and Blacks were nearly 30% less likely to see an outpatient neurologist than Whites" (Neurology, February 2019). At the Center for Neuroscience, Dr. Salvemini and the other members are trying to actively change the narrative. "A lot of physicians and researchers at Saint Louis University are so attuned to equity and diversity. We recognize the disparities, and we're really trying to address the equity issue through our work," she says.

Dr. Ayala agrees that the overall mission of Saint Louis University aligns closely with that of the Center for Neuroscience. "Our research has the potential to bring cures to patients who suffer from cognitive decline or motor disruption, which affects a large part of the population. These types of diseases are going to increase over time because of the growing number of older adults." As a Latina scientist, Dr. Ayala also seeks to be a role model for future scientists. "That's one of my missions—to increase the number of women and underrepresented minorities involved in science and medical research."

To continue to further this mission, Dr. Salvemini's goal is for the Center for Neuroscience to be recognized as a Center of Excellence (CoE) by Saint Louis University. "We bring a lot of prestige. We have outstanding programs. And because we are cross-disciplinary, we serve the entire University," says Dr. Salvemini. "Which is why solidifying our status as a CoE is the natural next step." In addition to bringing more expertise to the Center, Dr. Salvemini hopes to attract critical funding from grants, venture capitalists, and other entrepreneurs who are interested in investing in the research at the Center. More funding results in more research, which in turn yields more discoveries within the field of neuroscience.

For the scientists and clinicians at the Center for Neuroscience, imagination is transforming into reality, and SLU is leading the way.

CULTIVATING NEW IDEAS THROUGH SEED GRANTS



Through a competitive funding process, The Center for Neuroscience Research Award (CNR) can go toward a project, bridge funding, or the development of a new collaboration or area of research. Aligning closely with JUDITH OGILVIE, Ph.D. the spirit of the Center for Neuroscience, applications must be multidisciplinary and foster collaborations across

Associate Professor, Biology



Assistant Professor,

Pharmacological &

Physiological Science

SOWING THE SEEDS OF COLLABORATION

different departments at Saint Louis University.

Judith Ogilvie, Ph.D. Associate Professor, Biology & Colin Flaveny, Ph.D. Pharmacological & Physiological Science

As part of its mission to nurture tomorrow's scientists,

researchers, and clinicians-and their big ideas-The

Henry and Amelia Nasrallah Center for Neuroscience awards seed grants of up to \$10,000 each to members.

Dr. Judith Ogilvie, from the College of Arts and Sciences and Dr. Colin Flaveny from the School of Medicine COLIN FLAVENY, Ph.D. saw an opportunity for collaboration that centered on a unique idea. They would examine the role of a nuclear receptor called TLX, which has been characterized as essential for retinal development in mouse models. Mice that lack this TLX receptor show some deficiencies in retinal development, particularly a lack of thickening of the retinal layers, and then some deficiencies in the function and activity of a particular cell type within the retina called Müller glia. Müller glia cells have the potential to become stem-like cells under the right circumstances, meaning they can potentially replenish retinal tissues that have been damaged, whether by excessive light exposure, diabetic retinopathy, retinal dystrophies, or other causes.

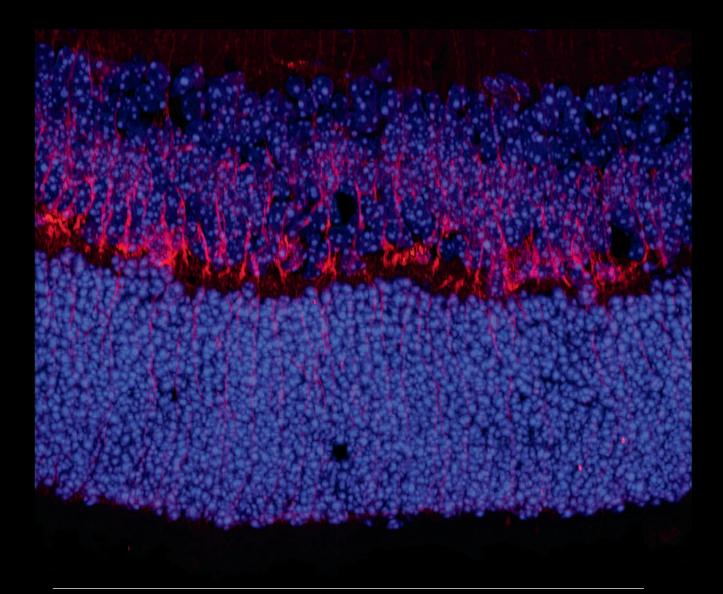
> "Based on observations in simpler organisms, such as zebrafish and amphibians, where these cell lines play a prominent role in replenishing retinal tissue, that in mammalian retinas, you can have a similar effect by forcing these Müller glia cells into a more stem-like state," says Dr. Flaveny. Lower vertebrates can regrow an entire

eye, but the challenge is understanding why people and other mammals cannot. While the ability for a human being to regrow an entire eye is not yet on the horizon, Dr. Ogilvie and Dr. Flaveny are trying to manipulate the TLX gene to be able to regrow some of the cells that are lost in retinal degenerations.

The Center for Neuroscience facilitated the collaboration on this research between Dr. Ogilvie and Dr. Flaveny not only by providing them funding through a seed grant, but also by helping them to better understand each other's research by hosting a research fair and meetings with faculty, where they had an opportunity to hear firsthand about the work of each Center member.

"The Center for Neuroscience helped bring us and our research together, and gave us an opportunity to really let this collaboration grow and flourish," says Dr. Judith Ogilvie. "The Center really crosses boundaries and is successful in bringing people from diverse departments and programs together." Dr. Flaveny continues, "The Center has made tremendous effort to stimulate research within the University, particularly collaborative research."

"There is so much we do not know about the natural world and in this case, more specifically about the retina and vision, and how it gets broken, and why people become blind, and why it is that a frog can grow a new eye and a person cannot," says Dr. Ogilvie. "There is so much we do not know and the pursuit of that knowledge and truth is very much a part of what we do as scientists here at Saint Louis University." Dr. Flaveny adds, "One of the greatest miracles is giving sight to the blind. We are not doing it through supernatural means. We are trying to understand the natural world to hopefully impact lives in a positive way. And I think the Center for Neuroscience is a space that allows for that freedom of exploration and funding. It is such a rich atmosphere of collaboration-of shared focus and shared will toward making life better for everyone."



20 micrometer-thin section of the retina of a mouse at age 14 showing mature Müller Glia projections spanning the layers of the retina. The section was stained and visualized using Immuno-Fluorescence. The red color corresponds to the expression of Retinaldehyde Binding Protein 1 (aka. CRALBP) - a protein marker for Müller Glia cells. The blue staining is for DAPI a stain for the DNA that highlights the nuclei of the cells in the layers of the retina.

ADDITIONAL TECHNICAL INFORMATION

MOUSE SPECIES: C57BL/6

STAINING: Blue (DAPI); Red (CRALBP: Müller glia; (Red-Alexa Fluor 594)

MAGNIFICATION: 63x

Microscopy Image Taken Using Spinning Disk Confocal Microscopy (Andor Technology)



REMEMBERING THE PAST, NURTURING THE FUTURE

WHITNEY POSTMAN, Ph.D., CCC-SLP,

Assistant Professor, Communication Sciences and Disorders

Dr. Whitney Postman, an assistant professor in the Doisy College of Health Sciences, was awarded matching funds from the Center for Neuroscience for a special event sponsored by her Neuro-rehabilitation of Language Lab. With the funding, she screened the award-winning documentary film "The Color of Medicine: The Story of Homer G. Phillips Hospital" for her Cognitive Stimulation Therapy (CST) group of low-income African American older adults from North St. Louis. This work is supported by the Saint Louis University School of Medicine's Geriatric Workforce Enhancement Program. The screening took place in November 2019 on campus. The participants of Dr. Postman's CST group live in the historic neighborhood of The Ville in North St. Louis where Homer G. Phillips Hospital, the premier training site for African American physicians, nurses and other health professionals, once flourished. From its inauguration in 1937 to its forced closing in 1979, this legendary hospital was in the heart of The Ville. Dr. Postman's group was deeply moved by the powerful documentary about the former Homer G. Phillips Hospital.

"It was very significant to my African American elders because not only did they grow up near the Hospital, but we gathered on the grounds of the former Homer G. Phillips Hospital for our CST group," says Dr. Postman. "While we mostly discussed health conditions that can put you at risk for dementia, such as diabetes and COPD, we also very openly talked about racial and gender health disparities. This was a very meaningful event supported by the Center for Neuroscience."









AT THE FOREFRONT OF ALL DECISION MAKING FOR SAINT LOUIS UNIVERSITY SCHOOL OF MEDICINE'S VICE DEAN FOR DIVERSITY, EQUITY AND INCLUSION DANIEL BLASH, PH.D. ARE THREE LITTLE WORDS, "YOU BELONG HERE." HIS JOB IS TO FOSTER, NURTURE AND DEVELOP A CULTURE AND ENVIRONMENT OF BELONGING FOR EVERYONE WITHIN THE SCHOOL OF MEDICINE. "WHEN MATTERS OF DIVERSITY, EQUITY, AND INCLUSION ARE NURTURED THROUGHOUT THE ENTIRE INSTITUTION, EVERYONE BENEFITS... THE WORK OF DIVERSITY, EQUITY AND INCLUSION WILL REACH ITS FULL POTENTIAL WHEN IT CAN BE SEEN AND FELT AT ALL LEVELS OF THE INSTITUTION; IT MUST BE A PART OF THE FABRIC OF THE PLACE."

DENISE HOOKS-ANDERSON, M.D., FAAFP Assistant Dean for Diversity, Equity and Inclusion

MARILYN MAXWELL, M.D. Assistant Dean for Admissions DANIEL BLASH, Ph.D. Vice Dean of Diversity, Equity and Inclusion Chief Diversity Officer for the School of Medicine

44/ 97 ULTIMATELY, OUR AIM IS THE PURSUIT OF TRUTH FOR THE GREATER GLORY OF GOD, AND WE DO THAT BETTER WHEN THERE IS DIVERSITY AT EVERY LEVEL.

-DANIEL BLASH, Ph.D.

Unlike many institutions and organizations that pay lip service to diversity, equity and inclusion, Dr. Blash and his team are putting promises into action, "proactively championing the importance and value of a diverse and inclusive campus climate at the School of Medicine," explains Dr. Blash. With the nation facing a reckoning around inequity, Saint Louis University is committed to ensuring that those who have been underrepresented in medicine—both from a practitioner and patient standpoint—have an equitable and inclusive experience when they walk through the doors of the School of Medicine. "Ultimately, our aim is the pursuit of truth for the greater glory of God, and we do that better when there is diversity at every level," says Dr. Blash.

OVERVIEW, MISSION, PURPOSE

The Office of Diversity, Equity and Inclusion (ODEI) oversees the School of Medicine's efforts to promote

inclusion for the medical school community, with programs, events, and initiatives designed to raise awareness, inspire action, support equitable employment, and cultivate a culture of diversity and inclusion. Dr. Blash understands the mission as much more; "We are here to support the tri-fold mission of the School of Medicine, which revolves around education, research, and patient care. Our goal is to become a worldclass institution as it relates to diversity, equity and inclusion. This translates into people seeking us out as a destination for training, employment, and care because of our reputation as not only an excellent school but an inclusive and welcoming one. It's about making sure that this is a level playing field conducive for growth and development—for all."

The mission of the ODEI is now much broader than its predecessor, the Office of Multicultural Affairs, which focused exclusively on students. While the ODEI has

THE JESUIT MEDICAL COLLABORATIVE INCLUDES:

The complete list of diversity council members can be found online at SLU.EDU/MEDICINE/GRAND-ROUNDS.







GEORGETOWN UNIVERSITY School of Medicine



maintained that critical piece of its work, the scope has broadened—both in terms of whom it serves and how it serves them. The ODEI's primary functions are to strengthen diversity recruitment and retention efforts, develop and promote internal talent, create and support mentoring programs, offer diversity education and training opportunities, partner with other offices and departments across campus, and increase collaboration between the School of Medicine and the St. Louis community.

The ODEI's role is to identify and remove obstacles creating a level playing field—wherever they arise. "Recently, a resident contacted me," says Dr. Blash. "He was a third-year on his way to a fellowship. He said to me, 'I was there for three years without any mentoring as a minority.' And those are precisely the types of challenges we are trying to solve. Case in point: we now have a mentoring program specifically for minority students."

2020 has brought the work of the ODEI into sharper focus. Across the backdrop of a global pandemic and racial unrest, the School of Medicine has invested significant resources into the ODEI. "It has a lot of momentum behind it," says Dr. Blash of the Office. "And my tendency is to go big. I think, Mission Possible." With a comprehensive set of innovative initiatives to propel diversity, equity, and inclusion, Dr. Blash and the ODEI team has set the stage for powerful change at the School of Medicine.

DIVERSITY INITIATIVES

The ODEI has bold ideas for fostering diversity, equity, and inclusion at the School of Medicine, and among students, faculty, staff and the community. Among the initiatives are intentional leadership decisions and staffing patterns, training and professional development, increased scholarships and opportunities for minority students and faculty, and events, forums, and lecture series that address relevant issues.

Leadership and Staff

There are currently two diversity councils, a LCME Diversity Council and the Dean's Executive Diversity Council. The first, which consists of students, staff, and faculty, supports the School of Medicine with the development and implementation of goals, and works to drive impactful change across academic and administrative operations, while the second, composed of senior stakeholders, is empowered to authorize change. With the recent appointments of Marilyn Maxwell, M.D., as the Assistant Dean of Admissions, and Denise Hooks-Anderson, M.D., as the Assistant Dean for Diversity, Equity and Inclusion, the ODEI is already transforming words into action by hiring from within communities of color. Additionally, the ODEI is expanding its staff to include a Program Director for Staff and Community Engagement who will be responsible for developing and maintaining recruitment pipelines and retention programs for underrepresented minorities, as well as engaging the St. Louis community to help mitigate healthcare disparities.

Beyond the walls of SLU, the ODEI is part of a larger diversity collaborative that works within the context of other Jesuit Medical Schools, working together to share resources, ideas and best practices.

Training and Professional Development

In August, the ODEI launched two mandatory training series for the entire School of Medicine. The first program consists of four sessions that explore systemic and institutional racism and methodologies to dismantle it. The second program focuses on unconscious bias and will become an important component of onboarding. Additionally, there are other opportunities for education around diversity, equity, and inclusion, including a 12week program to help educate and shine light on racial injustices, various lunch and learns around relevant topics, and Onboarding 101, which provides management training for best practices of onboarding individuals from diverse backgrounds.

Increased Opportunities for Minority Students and Faculty

In 2019, a Saint Louis University alumnus and SLUCare physician, Duane Moore, M.D., and his wife, Katrina Thompson Moore, Ph.D., of SLU's Department of History, established the John Meachum Scholarship Fund to honor the achievements of a pioneering African American St. Louis leader and to help medical students who hail from economically or educationally disadvantaged backgrounds. The School of Medicine is also home to the Summer Scholars Program, which was designed to encourage high school students from diverse backgrounds to pursue health-related careers. Additionally, the ODEI is currently working with the development office to increase scholarship opportunities for underrepresented minority students, helping to diversify the student body to more accurately reflect the population served by the School of Medicine. "The School of Medicine invites 60-90 underrepresented minorities into each class, which is approximately half of the entering class," says Dr. Blash. "However, only 15-20 minority students enroll because of funding. So scholarships are the most significant tool for increasing the number of underrepresented minority physicians who are trained at the Saint Louis University School of Medicine."



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SLUCare physician, Duane Moore, M.D., and his wife, Katrina Thompson Moore, Ph.D., of SLU's Department of History

But beyond scholarship opportunities, institutions must be proactive about creating a supportive environment that furthers retention. "Emotional safety is probably the number one rationale for why people of color choose where they go for training," says Dr. Blash. "Remember once they are finished with their training, they are entering a field where their representation is less than 6%. They will likely be the only person of color in their department or division. So, it is incumbent on us to not only convey a message of support and advocacy, but to act on it as well."

The ODEI has developed programming to foster a more inclusive environment for students and faculty from diverse backgrounds. Initiatives include hosting Campus Climate Open Forum for underrepresented minority residents and faculty to discuss and share their thoughts on campus climate at the School of Medicine, supporting the Student National Medical Association (SNMA) and Latino Medical Student Association (LMSA) through networking events and one-on-one meetings, formally pairing underrepresented minority staff with a faculty member or ally within the School of Medicine through the Mentoring in Medicine program, which provides an opportunity for minority faculty to guide minority students around issues related to navigating the academic environment, social/emotional wellness and other related topics.

Events and Lecture Series

Integral to cultivating a culture of diversity and inclusion is educating the community on issues of race and equity and maintaining an open dialogue. To that end, the ODEI launched the John H. Gladney lecture series, which provides an opportunity to gather, discuss, and learn from experts in an area related to health, health disparity, public health, and minority influences in improving healthcare and wellness. The lecture series and corresponding recognition dinner are named in honor of the late John H. Gladney, M.D., a well-known and respected member of the medical community who served as chairman of the Department of Otolaryngology at Saint Louis University School of Medicine, the first African American to hold the position of Chairman of a basic science or clinical department. Dr. Gladney was deeply committed to improving diversity at the University and within the field of medicine and was a pioneer in his field.

WE DISCOVERED WEAKNESSES WITHIN OUR ENVIRONMENT. IT IS OUR DUTY TO LISTEN WITH AN OPEN HEART AND MIND; ACTIVELY FIND, DEVELOP, AND IMPLEMENT SOLUTIONS; AND ULTIMATELY TRANSFORM THOSE WEAKNESSES INTO STRENGTHS.

Other events include a quarterly book club around relevant topics, an annual ODEI Family Fun Run/ Walk welcoming SLU, SLUCare, and the surrounding community to come together to promote health and fun. Please visit https://www.slu.edu/medicine/ diversity/news-and-events. php for more information on upcoming events.

The curriculum is undergoing significant changes as well. Part of the school's efforts includes new lectures, such as Race in Medicine, the Social Determinants of Health, and a simulation of how poverty impacts healthcare. There are many more initiatives on the horizon, including better representation of people of color throughout the School of Medicine.

A MICROCOSM OF AMERICA; A LEADER IN DIVERSITY

As tensions increased throughout the summer during a time of unprecedented protests and unrest, the Saint Louis University School of Medicine was part of the larger dialogue. Many at the School were unhappy with the lack of representation of people of color, the health disparities among the Black population in St. Louis, and the lack of minority leaders. "So they began to demand institutional



THE JOHN H. GLADNEY LECTURE SERIES IS NAMED AFTER JOHN H. GLADNEY, M.D., FORMER CHAIRMAN OF THE DEPARTMENT OF OTOLARYN-GOLOGY. GLADNEY WAS THE FIRST AFRICAN-AMERICAN TO HOLD THE POSITION OF CHAIRMAN OF A BASIC SCIENCE CLINICAL DEPARTMENT AT THE SAINT LOUIS UNIVERSITY SCHOOL OF MEDICINE.

-DANIEL BLASH, Ph.D.

change," says Dr. Blash. "And the institution responded by listening, acknowledging the problems, and coming up with a plan to fix them." Further, in a time of economic crisis as a result of the pandemic, the ODEI engaged with the St. Louis community at large, supporting local businesses owned by people of color, donating funds to support workers during the COVID-19 pandemic, and developing other ways to engage with the underserved Black community in the city.

"The Saint Louis University community is a microcosm of America, so we are impacted the same way as the nation as a whole," says Dr. Blash. "We discovered weaknesses within our environment. It is our duty to listen with an open heart and mind; actively find, develop, and implement solutions; and ultimately transform those weaknesses into strengths." With the Office of Diversity, Equity and Inclusion at the helm of that transformation, the School of Medicine at Saint Louis University is making strides toward becoming an even more equitable space for learning, teaching and discovery.



LOOKING TOWARD A MORE DIVERSE CURRICULUM



LYNDA MORRISON, PhD.

Assistant Dean of Pre-Clerkship Curriculum, Professor of Molecular Microbiology and Immunology Among the many initiatives to foster diversity, equity, and inclusion at the Saint Louis University School of Medicine is enhancing the curriculum to better reflect those ideals. Lynda Morrison, Ph.D., Assistant Dean of Pre-Clerkship Curriculum and Professor of Molecular Microbiology and Immunology, discusses these changes and the importance of course content being more inclusive. "Our goal overall is to create excellent physicians," says Dr. Morrison. "And as part of that, they need to be sensitive to their patients' circumstances and backgrounds, which is the driving force behind some of the curricular changes that we are anticipating."

Parts of the established curriculum emphasize a broad perspective. For example, the Clinical Interviewing course is devoted to helping M1s learn to interview patients with diverse backgrounds in a culturally sensitive manner. One of the changes in curriculum incorporates active, team-based learning, in which students use clinical vignettes in trying to solve a case-based problem. The vignettes incorporate fictional families that are of diverse backgrounds, including a Black suburban family, an established immigrant family, and others, to shed light on social determinants of health. The School's Healthcare Ethics course, which has been running for several years, also discusses racism in medicine, as well as individuals with disabilities—another population that is underserved and often marginalized within medicine.

Another aspect of the curriculum that focuses on equity is student electives. "We have quite an array of electives that speak to students getting a better understanding of the social determinants of health, or providing service in the community and addressing the specific needs that the community has identified," says Dr. Morrison. These electives include Promoting Health and Social Equity (PHASE), Patient Experience of Trauma in Medicine, and Labor of Love, which helps women from underserved communities during their pregnancies.

There are other elective programs that also foster diversity, equity, and inclusion. One program, Doctors for Diversity, consists of medical students going to local high schools to mentor youth who are interested in science and helping them understand more about careers in health sciences. Another program offers medical students the opportunity to teach youth in local schools about proper nutrition and exercise in a fun and accessible way.

With many new initiatives on the horizon, such as a new course, Medicine in Society-a joint effort between the School of Medicine and the School of Public Health that will examine health disparities and racism in medicinethe School of Medicine continues its commitment to the Jesuit concept of *cura personalis*, or caring for the whole person, and to its mission of the pursuit of truth for the greater glory of God and for the service of humanity. "I think the pursuit of truth includes the pursuit of scientific truth-medical knowledge truth-and also truth about humanity," says Dr. Morrison. "You can't put people into one category or another, but really must seek a broader truth to treat all people equitably. Medicine is ideally suited to this concept, because each and every one of us suffers from disease at some point, and each and every one of us deserves effective, compassionate, affordable care.

CULTURALLY COMPETENT RESOURCES FOR MENTAL HEALTH AND WELLNESS

Lauren Schwarz, Ph.D., Professor in the Departments of Psychiatry and Behavioral Neuroscience & Neurology, also serves as Assistant Dean of Student Affairs. Her role is to help students maintain their mental health and wellness during their time at Saint Louis University's School of Medicine. "We want to create physicians who are well-rounded, not only from an educational standpoint, but also in their ability to take care of themselves so they can better take care of others," says Dr. Schwarz. Part of that is making sure that each student has access to customized, culturally-competent resources. "We see that each student is unique and we really tailor recommendations and referrals to them as an individual." Below are some of the resources and articles Dr. Schwarz recommends, specifically for people of color.



LAUREN SCHWARZ, PhD. Assistant Dean of Student Affairs, Professor in the Departments of Psychiatry and Behavioral Neuroscience & Neurology

Equal Justice Initiative

eji.org

Shop Talks at the Black Mental Health Alliance

blackmentalhealth.com/mind-health-shop-talks

Article: African Americans' Access to Behavioral Health - American Psychological Association

APA.org/advocacy/civil-rights/diversity/african-american-health

Black Therapists Rock

BlackTherapistsRock.com

Therapy for Black Girls

providers.therapyforblackgirls.com

Ourselves Black

ourselvesblack.com/manifesto

Mental Illness - Black/African American page

NAMI.org/Your-Journey/Identity-and-Cultural-Dimensions/Black-African-American



GRAND ROUNDS TALKS TO THREE ALUMNI WHO ARE MAKING GREAT STRIDES IN EACH OF THEIR FIELDS



KANIKA A. TURNER, M.D., MPH

(MD '14)

Family Medicine, Family Care Health Center

Associate Medical Director, Clinical Instructor, Saint Louis University School of Medicine Department of Family and Community Medicine

WHAT IS YOUR CURRENT ROLE?

I am currently the Associate Medical Director at Family Care Health Center—Carondelet Site, clinical faculty to Department of Family and Community Medicine, Physician Consultant to MO State Opioid Response Team, and creator of the Faith-Based Opioid Initiative.

WHAT IS YOUR BEST MEMORY OF SAINT LOUIS UNIVERSITY SCHOOL OF MEDICINE?

My fondest memory of Saint Louis University School of Medicine is Dr. Michael Railey, previous Dean of OMA. He genuinely cared for all students, and his passion for education and commitment to diversity and inclusion is apparent.

HOW HAS THE SLU MISSION INFORMED YOUR WORK?

The SLU Mission has informed my work in so many areas. After graduation from residency, I pursued an interest in Addiction Medicine. I am currently studying to sit for Addiction Medicine Boards, which highlights the pursuit of excellence. I have worked diligently to incorporate Addiction Medicine into primary care and will continue to teach rotating medical students and residents. I have also let this mission inform my work with the surrounding community by leading faith-based efforts for opioid education, Naloxone distribution, and anti-stigma education, focusing specifically on the Black Community. This has opened the door for expanded access to Naloxone, a better understanding of opioid use disorder as a chronic disease, and destigmatization of substance use.

IF YOU COULD GO BACK IN TIME, WHAT ADVICE WOULD YOU GIVE YOURSELF AS A MEDICAL STUDENT?

If I could go back in time, I would tell myself that in moments of difficulty (constant studying, late nights, early mornings, feelings of inadequacy, etc.) you may not see the purpose of your calling. Still, God always has a perfect plan created specifically for you.

FROM YOUR PERSPECTIVE, WHAT CHALLENGES ARE ON THE HORIZON FOR THE FUTURE OF ADDICTION MEDICINE? HOW ARE YOU PREPARED TO MEET THOSE CHALLENGES?

One challenge I see for the future of Addiction Medicine is developing equitable treatment services for all, and specifically our Black and Brown communities. There are years of hurt and shame developed from stigmatizing media ads, increased criminalization, and current racial biases embedded in our medical system. I am prepared to meet that challenge by continuing to educate our communities, educate my colleagues, educate our future doctors, and continue to work hard to achieve equitable and compassionate care that everyone deserves.



JESSICA OUYANG, M.D.

(MD '14)

General Psychiatry Child & Adolescent Psychiatry, Women Focused, Integrative Psychiatry

WHAT IS YOUR CURRENT ROLE?

I have a few different roles. Clinically, I will be involved in pediatrics, family medicine and ob/gyn consulting in co-located medical/mental health care for both adults and children. Administratively, I will be a part of an initiative to improve maternal/infant care in the Safe Babies Safe Moms Program where I will develop relationships with program partner organizations in the community and initiate associated research activities. I am also looking forward to teaching trainees of different levels and departments. I hope that through our interactions, they will be inspired to find and be on the journey to achieve their purpose in medicine and life.

WHAT IS YOUR BEST MEMORY OF SAINT LOUIS UNIVERSITY SCHOOL OF MEDICINE?

Without a doubt, it's the relationships, e.g., meeting my lifelong mentor and others who have inspired me.

HOW HAS THE SLU MISSION INFORMED YOUR WORK?

When I read the SLU mission statement, many, if not all, are reflected in the fruits of the Spirit (Galatians 5:22-23). I think these are critically important in the vulnerable populations with whom I have worked. Many patients, no matter the age, race, gender, social-economic class, have experienced a tremendous amount of trauma, whether or not they recognize it. Patients need to see that their physician holds these principles, which, in turn, are what would allow them to place trust in the physician. This has been critical to my daily clinical work.

IF YOU COULD GO BACK IN TIME, WHAT ADVICE WOULD YOU GIVE YOURSELF AS A MEDICAL STUDENT?

One thing I did well was finding (and keeping) a mentor. Finding a good mentor is difficult, but so is medicine or anything in life that truly matters, and we pursue that with all of our mental/physical/financial efforts. I can't even begin to count the value of having had a mentor during medical school and then having the same one continue on my journey during residency, fellowship, and now starting my first position. This mentoring relationship truly guided me in medicine, life, and faith. Medicine seems like life during medical school, but it's only a piece of you.

FROM YOUR PERSPECTIVE, WHAT CHALLENGES ARE ON THE HORIZON FOR THE FUTURE OF ADULT AND CHILD PSYCHIATRY AND PEDIATRICS. HOW ARE YOU PREPARED TO MEET THOSE CHALLENGES?

The questions I ask are, "how do we educate people about healthcare findings that could impact their health decisions" and "how do we deliver care to people effectively"? We know from research that many people who need psychiatric care simply do not have access to nor are they aware there is help available. The combined training allows me to think from dual perspectives, both as a primary care provider and as a psychiatrist. I hope that this will enable me to be aligned with all stakeholders to help evoke needed changes in the system.



DEIDRA CANDICE CREWS, M.D.

Associate Vice Chair for Diversity and Inclusion, Department of Medicine Associate Professor of Medicine Johns Hopkins University School of Medicine

WHAT IS YOUR CURRENT ROLE?

I am a physician-scientist and associate professor of medicine in the Division of Nephrology at Johns Hopkins. My federally-funded research program addresses kidney disease and hypertension among socially vulnerable groups, including African Americans, the poor, and older adults.

WHAT IS YOUR BEST MEMORY OF SAINT LOUIS UNIVERSITY SCHOOL OF MEDICINE?

My best memories are of the wonderful friendships I developed with my classmates, several of which I am still in close contact with today. I also have great memories of some of the patients I had the privilege of caring for, who helped shape the physician I am today.

HOW HAS THE SLU MISSION INFORMED YOUR WORK?

The focus on providing service to the underserved was formative for me and positively influenced my decision to build a career addressing health disparities.

IF YOU COULD GO BACK IN TIME, WHAT ADVICE WOULD YOU GIVE YOURSELF AS A MEDICAL STUDENT?

Remember the reason you pursued medicine in the first place, and allow that to be your 'North Star' throughout your career so that you maintain optimism and never become jaded.

FROM YOUR PERSPECTIVE, WHAT CHALLENGES ARE ON THE HORIZON FOR THE FUTURE OF INTERNAL MEDICINE? HOW ARE YOU PREPARED TO MEET THOSE CHALLENGES?

Significant challenges facing medicine more broadly, and internal medicine specifically, include the need to examine our policies and procedures to ensure that we are pursuing and supporting a physician workforce as diverse as the population(s) for whom we are committed to care. Another challenge is our need to track and prioritize health equity in our clinical and research work. We increasingly see the critical importance of this during the current pandemic. I am trying to do my part to advance work addressing both of these challenges.



SSM HEALTH SAINT LOUIS UNIVERSITY HOSPITAL

Five years after Saint Louis University and SSM Health expanded their partnership, the new SSM Health Saint Louis University Hospital is now complete. This partnership will lead to dramatic improvements in the Saint Louis University School of Medicine educational experience, guided by the Catholic Jesuit tradition for SLU's 730 medical students and 550 residents.

The \$550 million facility features more than 800,000 square feet of space, and 316 private patient rooms with in-room state-of-the-art technology, including pillow speakers and environmental controls. The hospital features an expanded Level I trauma center and emergency department with a dedicated CT and X-Ray—prepared to treat over 3,500 trauma cases per year. For the students, residents, and faculty who will utilize this space for teaching, learning, and patient care, the facility provides the tools and technology needed to pursue excellence in education, research, clinical care, and engage with the community in a holistic, humanistic way.

Saint Louis University and SSM Health look forward to responding to the community's growing needs with these patient-centered facilities and provide continued support to medical advancements and innovation.

GET ENGAGED WITH THE SLU SCHOOL OF MEDICINE

JOIN US

We hope to see you soon at an upcoming or virtual event—please visit **SLU.edu/medicine** for the latest SLU School of Medicine event calendar.

GIVE

To support the researchers and clinicians at SLU who share a common interest in neuroscience, please consider donating to the Henry and Amelia Nasrallah Future Endowed Professorship or the Dr. Henry and Amelia Nasrallah Award for Academic Excellence.

Supporting students through scholarship is an effective way to ensure our student population is competitive and diverse. SLU offers scholarships for underrepresented minorities, including the John Berry Meachum Endowed Scholarship, the School of Medicine Diversity, Equity and Inclusion Scholarship and the School of Medicine Diversity Scholarship.

Your gift helps define the future of Medicine at SLU. For more information on making a gift, please contact **giving.slu.edu**, **Pat.Dolan@slu.edu**, or our development staff.

STAY IN TOUCH

We are always interested in our graduates' news and accomplishments, both personal and professional. If you have news to share or wish to update your address, please visit us at **alumni.slu.edu/StayConnected**. We encourage you to send your contact information so we may keep you informed about reunions, events in your area, and news from the School of Medicine, as well as invite you to submit class notes for publication online.

VISIT THE SLU SCHOOL OF MEDICINE ONLINE

There's a lot more to learn about your School of Medicine online, including:

ADVOCACY OPPORTUNITIES	CLASS NOTES	MATCH DAY	PUBLICATIONS
BOOK GROUPS	CME OPPORTUNITIES	MEMORIAL INFORMATION	VOLUNTEER OPPORTUNITIES
CALENDAR OF EVENTS	DAY OF EXPERTS		

How can we better serve you? Let us know with your comments and recommendations at **elizabeth.e.brennan@health.slu.edu**.





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WE INVITE YOU TO JOIN

THE WHITE COAT SOCIETY

The School of Medicine is proudly and generously supported not only by our alumni, but also by many of our faculty members. They know that it takes ongoing support to continue providing an excellent learning environment for our medical students and residents, and to engage in meaningful research.



The White Coat Society celebrates the partnerships between Saint Louis University School of Medicine and alumni, faculty, and friends who choose to make annual contributions of \$2,500 or more. Members of the White Coat Society are also included in the President's Circle Giving Society, which honors generous donors across the university.



Left to right: Christine Jacobs, M.D., Mary McLennan, M.D., Oscar Cruz, M.D., Robert Wilmott, M.D., Carole Vogler, M.D.

For more information, visit slu.edu/medicine/grand-rounds/white-coat-society.php or call 314-977-3287.