



The issue of
ADDICTION

GRAND ROUNDS



SAINT LOUIS
UNIVERSITY.

Saint Louis University School of Medicine

SPRING 2019

THE ISSUE OF ADDICTION ISN'T NEW. BUT IT'S GROWING AND CHANGING IN WAYS NEVER IMAGINED. PAIN WAS DEEMED THE FIFTH VITAL SIGN. INSURANCE COMPANIES WERE ALTERING REIMBURSEMENT RATES BASED ON WHAT THEIR PATIENTS SAID, AND HOW THEY WERE BEING MANAGED. IN STATES WHERE MEDICAID EXPANSION FAILED, THE TOOLS AVAILABLE TO MANAGE PAIN WERE VASTLY LIMITED.

Addiction has been impacted by the rise of use of prescription opioids, and years ago pharmaceutical marketing told physicians these “new formulations” were safe and non-addictive—creating thousands of people who became hooked on synthetic and semi-synthetic opioids.

Today, heroin is easier to produce, getting stronger, and illegal drug delivery routes are becoming more sophisticated. Fentanyl is 500 times stronger than

morphine. In 2017 alone, almost all the drug-related deaths in St. Louis County were from fentanyl-laced heroin. Physicians and EMTs are bracing for cocaine-laced fentanyl—the next trend in illegal drug use—exceptionally more dangerous than heroin. The potency of what can be bought on the street is already so unpredictable, people are dying from a single use.

There's a common thread of hopelessness that weaves through the addiction epidemic.

AT SLU, WE ARE CREATING A PATHWAY TO HOPE.

AS THE ADDICTION CRISIS IS CHANGING, SO MUST THE WAY WE THINK ABOUT ADDICTION MEDICINE. SLU IS AT THE FOREFRONT OF ADDICTION MEDICINE EDUCATION WITH THE DEVELOPMENT OF A NEW CENTER FOR SUBSTANCE USE DISORDERS AND PAIN MANAGEMENT THAT SUPPORTS AND ADVANCES EXCELLENCE IN EDUCATION, RESEARCH, CLINICAL CARE, COMMUNITY ENGAGEMENT AND ADVOCACY. WE INVITE YOU TO LEARN MORE ABOUT OUR WORK AND JOIN OUR EFFORTS TO ADDRESS THIS EPIDEMIC AS PART OF THE SLU MEDICAL COMMUNITY.



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The hottest places in hell are reserved for those who, in a time of great moral crisis, maintain their neutrality

Executive hell shall not be occupied, nor executive there be good, nor trust and without systematic talkat.

FRED ROTTNEK, M.D., IS CHANGING THE FUTURE OF ADDICTION MEDICINE

“AS A CATHOLIC JESUIT INSTITUTION, IF WE CAN'T WADE INTO THESE MURKY WATERS, WHO CAN?”



SLU IPE

AN INTERPROFESSIONAL EDUCATION

FOR DAVID POLE, PH.D., MPH, IMPROVED PATIENT OUTCOMES, QUALITY CARE, AND PATIENT SAFETY EXIST AT AN INTERPROFESSIONAL CROSSROAD OF COLLABORATION.

As an Assistant Professor of Family and Community Medicine and the Director of the Center for Interprofessional Education (IPE) and Research at Saint Louis University, Pole has dedicated much of his 15 years at the university to strengthening the interprofessional education, practice, and research programs that allow medical students to train with students from other professions, and provide experiences where they learn about, from, and with each other to improve collaboration and patient outcomes. The IPE programs work across nine health profession programs at the schools of medicine, nursing, social work, Doisy College of Health Sciences and the St. Louis College of Pharmacy.

When you meet Fred Rottnek, M.D., MAHCM, it's hard to know where to look first. His thick salt-and-pepper braid down his back. His office—liberally decorated with Hello Kitty memorabilia, in honor of his former cat, Baby Dirty Girl Brenda.

But it's Dr. Rottnek's tattoos that stand out the most, and help tell his story best. On his left forearm, in thick black typeface, reads a quote from the 8th Amendment, "Excessive bail shall not be required, nor excessive fines imposed, nor cruel and unusual punishments inflicted." In 1976, the U.S. Supreme Court ruled that this amendment mandates anyone who is incarcerated has a constitutional right to healthcare. On his right arm, is an apocryphal, though popular, quote, "The hottest places in hell are reserved for those, who in time of great moral crisis, maintain their neutrality." It's what he calls his "tattoo of solace."

THE LONG PATH

A graduate of Furman College, Dr. Rottnek was the first in his family to go to college, and was then offered a full ride to Harvard to study bioorganic chemistry. Struggling with depression, he left Harvard and would later earn a theology degree in healthcare mission from Aquinas Institute of Theology.

Dr. Rottnek enrolled in the Saint Louis University School of Medicine in 1991, and as first-year student gravitated toward a mini-elective on homeless healthcare which allowed him to participate in homeless care at different shelters. He had considered going into psychiatry because of his own history, as well as a family history of depression and alcoholism. But he had a love for family medicine because it provided more tools which allowed him to work with patients.

AT HOME, BEHIND BARS

After training at Deaconess and UNC Chapel Hill, his practice was approached by the St. Louis County Department of Public Health to staff correctional healthcare at the Buzz

Westfall Justice Center and St. Louis County Family Courts. "I had been doing homeless work for long enough that I figured jail was going to be homeless work, but with more resources. So I ended up transitioning into becoming the medical director," said Dr. Rottnek.

"For over 15 years, that was my clinical work. I loved working with the patient population because the vast majority of people who are in jail are there because they don't have resources—most have mental health issues, substance abuse issues or both."

Dr. Rottnek was a tireless advocate for medical services for inmates. He was also passionate about opportunities for students. "I always had students and residents with me. We created an interprofessional practice. We had 11 different professions at the time I left, so we were able to do integrated care at that facility."

2016 was a pivotal year in Dr. Rottnek's life. At the same time St. Louis County considered privatizing health services at the jail, addiction medicine was recognized as its own specialty by the American Board of Medical Specialties. This provided an opportunity for Dr. Rottnek to become board certified in addiction medicine.

A PERFECT STORM

The landscape of how addiction is impacting society has dramatically changed. A number of factors are colliding in a way that generates significantly more attention to the problem. In past epidemics, in which racial minorities were impacted disproportionately, access to treatment was not available.

A generation of young black men with addiction to crack and methamphetamine were incarcerated, ignored or allowed to die. The opioid epidemic has impacted well-resourced white people—and society is responding differently.

“/” SLU IS A PERFECT SETUP FOR ADDICTION MEDICINE BECAUSE WE HAVE PEOPLE WORKING IN EACH OF THESE AREAS THAT WE CAN SAY, ‘OKAY, HOW DO WE KEEP BUILDING THIS TO FIND OUT HOW TO HELP PEOPLE THRIVE? HOW DO WE HELP PEOPLE FLOURISH? HOW CAN WE OFFER THE TOOLS THAT PEOPLE NEED TO MANAGE THEIR WELLNESS AND TO MOVE FORWARD?’

—FRED ROTTNEK, M.D.

According to Dr. Rottnek, in 2017, at least 72,000 people died from drug overdoses in the U.S., the majority of which were caused by synthetic opioids. In the same year, 90,000 people died from alcohol-related use, and over 400,000 people died from tobacco-related use. However, many experts believe these numbers don't tell the true story behind addiction-related deaths—opioid deaths alone are likely closer to 150,000.

Dr. Rottnek spends much of his time personifying each story within the aggregate numbers of patient populations and asking the deeper questions. “Why are people looking at addictive substances now as a good choice? That’s the issue that we really need to get to—why are we seeing these addiction rates climbing in general? Where is this hopelessness coming from? Why is this turn to chemicals making life more manageable? Why is it becoming a more prevalent occurrence? In the past, we used to moralize addiction; we referred to people with addictions as weak, or flawed, or lazy. Today we have the science that tells us that addiction works like many other chronic diseases,” said Dr. Rottnek.

“Because we have this perfect storm right now. We have the availability of drugs, the unpredictable potency and purity of it. Then we have a generation coming up that’s less resilient, more anxiety prone and put all that together and that’s kind of what’s been driving a lot of the epidemic.”

The way society as a whole is thinking about addiction is changing the way physicians are able to practice. Stigmas are eroding, families and communities are more willing to talk about addiction and support loved ones who are facing addiction, and physicians have more tools to help patients. The timing was right for Dr. Rottnek and his fellow SLU Addiction Medicine colleagues to create the Center for Substance Use Disorders and Pain Management.

CHANGING THE FACE OF TRAINING: A THREE-PRONGED MODEL

As one key facet of the Center for Substance Use Disorders and Pain Management, Dr. Rottnek is leading the effort to create an Addiction Medicine Fellowship at SLU, with an anticipated launch date of July 2019. As a new certification, for the first five years it’s officially a specialty—if a physician can show that she has had significant experience working with addiction—she can sit for boards. After the first five years physicians will have to complete a one-year fellowship in Addiction Medicine. The Addiction Medicine Fellowship is appropriate for any board-eligible or board-certified physician. The “all-in” nature is the key to what makes the Addiction Medicine Fellowship a new model. It’s available and appropriate for any physician to build on a primary specialty. Addiction touches all lives, so the new Addiction

Continued on page 7

SLU IPE

BREAKING OUT OF SILOS

“THE CENTER FOR IPE, WHICH STARTED INTEGRATING INTERPROFESSIONAL TEAM SEMINARS INTO ALL GRADUATE HEALTH PROGRAMS IN 2008,

is focused on how to increase the capacity of students and practitioners to engage in effective collaboration and teamwork that improves individual patient care and outcomes,” said Pole. “Our contribution to the learning environment is to help build skills and capacity for interprofessional collaboration that supports providers moving out of their silos for the benefit of their patients. Students practice developing shared goals for patient care and outcomes, determining which professionals need to be on the team to contribute to that outcomes.”

SLUIPE

A NEW WAY TO TREAT ADDICTION?

“Addiction treatment isn’t simply about getting a patient to stop their substance use—it’s about approaching treatment from a holistic perspective and addressing multiple factors,” said Pole. “We have to look at the individual’s history of trauma, their physical and mental health, and their skills at making better choices. You can’t treat only one aspect of a problem and expect a sustainable outcome. This is where interprofessional collaboration can have a big impact.”

New approaches to treating addiction focus on an effective team of healthcare providers working closely with a patient, and with each other. “Putting people in isolated, in-patient addiction treatment programs is not as successful as we once thought,” Pole said. Today’s model for treatment examines the physical and psychosocial aspects of addiction and an individual’s experiences, and seeks to address these factors through comprehensive, multi-faceted interventions provided by a cohesive treatment team. This new approach to treatment is supported by research being conducted at SLU and the groundbreaking work of SLU’s community partners at Assisted Recovery Centers of America (ARCA) and the Missouri Opioid State Targeted Response (STR).

CENTER FOR SUBSTANCE USE DISORDERS AND PAIN MANAGEMENT

The Saint Louis University School of Medicine is leading the way in the future of addiction medicine through the establishment of The Center for Substance Use Disorders and Pain Management. The Center supports and advances excellence in education, research, clinical care, community engagement, public policy and advocacy.

Using the model of integrated and collaborative care, the Center will ensure shared goals and outcomes across five areas of substance use disorder prevention, treatment and pain management:

- Basic science research
- Clinical bench to bedside research
- Workforce development for interprofessional team-based care
- Program evaluation, outcomes assessment, and advocacy for policy and legislative change based on evidence-based practice and practice-informed guidelines
- University culture change through an Addiction Medicine Fellowship in research, clinical service and education

THE CENTER FOR SUBSTANCE USE DISORDERS AND PAIN MANAGEMENT RESEARCH TEAM INCLUDES:



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*Assistant Professor,
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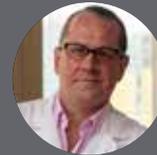
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Medicine Fellowship is for everyone—family medicine, ER, OB-GYN, pediatrics, psychiatry, surgical subspecialties—and others.

The Addiction Medicine Fellowship is led by Dr. Rottnek, Jaye Shyken, M.D., Jacqueline Landess, M.D., J.D., and Mirela D. Marcu, M.D. Drs. Landess and Marcu are both on the SLU Psychiatry Faculty. Dr. Landess was the psychiatrist at the St. Louis County Jail, and Dr. Marcu specializes in community-based psychiatry.

The need for addiction fellows is growing, and is touching every demographic. That growing need dictates additional training resources, and Dr. Rottnek has plans to address the fellowship demands. “Eventually, I’d love to see three fellows every year. One could be a fellow with a focus on the urban underserved core, because that’s where our residency program is, with the federally-qualified, student-run health center. A second track would be for someone interested in maternal-fetal medicine—working with Dr. Shyken. And a third track—with the VA. We have the opportunity to care for folks who served in the armed services or who have traumatic brain injuries and/or correctional healthcare,” said Dr. Rottnek. He is also exploring a fourth track in Emergency Medicine with SLU’s Division of Emergency Medicine.

Unlike other Addiction Medicine Fellowship programs in the U.S., the SLU program will train fellows in family medicine, maternal-fetal medicine and psychiatry services—providing a competitive advantage for the school. “All the fellows will have some training in each of those areas. With their elective choices, they’ll be able to tailor the year based on their interest and background,” explained Dr. Rottnek.

COLLABORATION

Creation of the new fellowship is just one aspect of Dr. Rottnek’s work. Because addiction medicine has the opportunity to create transformative change, it’s being addressed through an interprofessional, multidisciplinary collaborative approach. SLU has the medical staff, therapy staff and spiritual components to help people find meaning and value. SLU’s creating collaborations to help ensure patients have not only medical needs met but is connecting the dots of social determinants—including housing, education and jobs.

“SLU is a perfect setup for addiction medicine because we have people working in each of these areas that we can say, ‘Okay, how do we keep building this to find out how to help people thrive? How do we help people flourish? How can we offer the tools that people need to manage their wellness and to move forward?’” said Dr. Rottnek.

HOPE ON THE HORIZON

Traditional 12-step therapy models for people to come together for mutual support can be helpful for some, and medication models can provide concrete tools and medical management for patients. The number of options for patients seeking recovery have dramatically increased.

“Most students weren’t taught in medical school about how methadone, Suboxone and other medications work. They help regulate neurotransmitters so that cravings are under control. They give your brain time to heal. Then you can better engage in the therapy to build the type of life you want and deserve,” said Dr. Rottnek.

As these doors are opening, both within society and the medical field, Dr. Rottnek finds there are an increasing number of tools available to treat patients.

Pole also described a new framework for provider-patient collaboration created by the Agency for Healthcare Research and Quality (AHRQ) (one of 12 departments within the United States Department of Health and Human Services) that the Center for IPE at SLU has integrated into courses. The **SHARE** approach provides a framework for training healthcare professionals on how to engage patients in their healthcare decision-making. SHARE is an acronym for: **SEEK** your patient’s participation; **HELP** your patient explore and compare treatment options; **ASSESS** your patient’s values and preferences; **REACH** a decision with your patient; **EVALUATE** your patient’s decision and progress. According to Pole, this shared decision-making model starts with the belief that providers and patients are both experts coming to the care setting. “How can we work together to determine the best plan of care that works for you?” he asked. Patient engagement in the decision-making process and care aligned with patient values and preferences have been shown to increase engagement, adhere to health behaviors and improve health outcomes. The **SHARE** approach is not prescriptive, but rather, exploratory. **SHARE** is about understanding where the patient is now and what they want to do; then asking yourself, ‘How can I help get them there?’

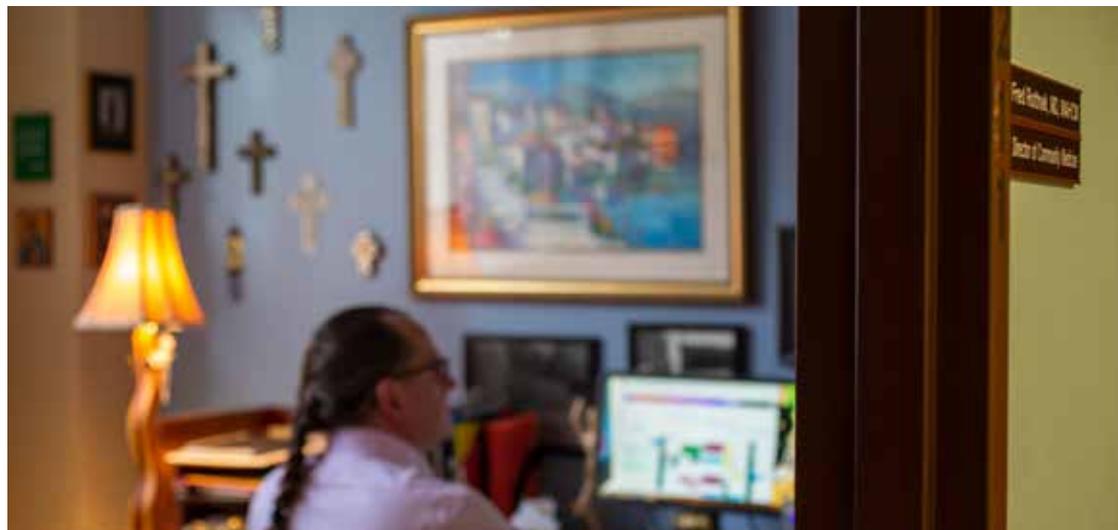
SLU IPE

WHY SLU?

SLU'S COLLABORATIVE MODEL ENSURES WE ARE POSITIONED TO BE A LEADER IN ADDICTION MEDICINE.

“Cutting edge research on how the brain is impacted by opioids is occurring right now at SLU. Likewise, there is excellent work being done in interdisciplinary team approaches to pain management and approaches to reducing the stigma of addictions. Unfortunately, research discovered and advanced in a silo may take 15-17 years to reach the bedside,” said Pole.

“A model and framework that integrates numerous elements—from research to clinical practice to teamwork and collaboration—is the most promising approach to not only addressing the opioid addiction epidemic, but to developing sustainable solutions and building an effective healthcare workforce. SLU has these components, and has a strong history of academic and community-engaged collaborations,” said Pole.



“The best study I know compares the traditional 12-step model to 12-step with different interventions through the Hazelden Betty Ford program. It’s called Cor-12, and they’re looking at people going through opioid recovery by 12-step alone, 12-step with naltrexone and 12-step with buprenorphine. By combining medication and therapy, they’re finding this results in better outcomes. We haven’t traditionally done as many studies in the U.S. with addiction because we haven’t valued people in our society with addiction. Now that we are, we realize so much money is being wasted on current practices without good outcomes,” said Dr. Rottnek.

IN THE FIELD

Dr. Rottnek’s time is split in a number of ways. He serves as the Medical Director for the Physician Assistant Program and teaches in the School of Medicine. His other assignments include clinical interviewing and longitudinal community service plus a four-year curriculum in pain, substance use and responsible prescribing. He also serves as the Medical Director for ARCA—Assisted Recovery Centers of America. In this role, he’s leading efforts to standardize addiction medicine, psychiatry and co-occurring disorder care across three sites in St. Louis, and via telehealth with 11 agencies and 37 different ARCA sites across Missouri.

He also serves on the Missouri Opioid State Targeted Response Team, which was created as part of the FDA’s 21st Century Cures Act. This state-level perch provides access to a wide range of collaborations for Dr. Rottnek and SLU, including the Missouri Institute for Mental Health (MIMH) at the University of Missouri-St. Louis, Missouri Department of Mental Health and Catholic Health Association.

BEYOND THE WALLS OF SLU

Community engagement and bringing addiction management resources beyond the walls of SLU is critical to the Center for Substance Use Disorders and Pain Management. Community engagement can take many forms at a number of organizations including Alive and Well Communities, the Catholic Health Association, Hazelden Betty Ford Foundation, St. Louis Regional Health Commission, St. Louis Integrated Health Network, St. Louis County Department of Public Health, St. Louis City Jail and other partners.

Alive and Well Communities, where Dr. Rottnek serves on the board, is a grassroots effort for communities to understand what cumulative trauma does to individuals and families. Dr. Rottnek has integrated these trauma principles into his clinical interviewing course so that students

“/” IF YOU DON’T UNDERSTAND WHY YOUR PATIENT’S BEHAVING OR ACTING IN A CERTAIN WAY, IT’S PROBABLY BECAUSE YOU’RE NOT ASKING THE RIGHT QUESTIONS. AND I LIKE TO HELP STUDENTS GET TO THE POINT OF ASKING THE RIGHT QUESTIONS.”

—FRED ROTTNEK, M.D.

develop skills to have very candid conversations with patients and families about trauma, and about the impact of trauma on individual, family and community health.

Through his leadership in a number of community programs, Dr. Rottnek engages with what he calls the “messy end of healthcare”—people who are homeless, affected by the criminal justice system or impacted by addiction and risky drug use. Dr. Rottnek’s on-the-ground work embodies the very mission of SLU—the pursuit of truth for the greater glory of God and for the service of humanity. In his words, “As a Catholic Jesuit institution, if we can’t wade into these murky waters, who can?”

LOOKING AHEAD—TRAINING OUR FUTURE PROFESSIONALS

He’s a tireless evangelist for physician training. Dr. Rottnek was the brainchild behind SLU Addiction Medicine Day—Caring for Our Communities and Ourselves. Enrolled residents and faculty received their special waiver training for buprenorphine, and SLU brought in Joseph Skrajewski, Executive Director, Medical and Professional Education from the Hazelden Betty Ford Foundation to speak about self-care for health professionals. In the summer of 2019, the Hazelden Betty Ford Foundation is underwriting three SLU School of Medicine students to attend the Summer Institute for Medical Students (SIMS) to learn about addiction treatment for substance use disorders directly from clinicians, patients and families in an immersive, week-long educational program.

Dr. Rottnek does everything with a lens toward training current and future physicians in developing best practices for addiction medicine, collaborative care and community partnerships. He’s looking toward the future of addiction medicine, toward the destigmatization of the conversation around addiction, and creating a physician workforce that is prepared to care for and treat a diverse population in need.

“I love the idea of challenging our learners and our faculty to really engage with people or a population you may not understand. When you do, you learn about yourself, you challenge yourself, and you learn they’re still people. And they still have the values and goals in their life. Just because their lives are very different from yours, doesn’t mean they’re different people. In fact, I often say, if you don’t understand why your patient is behaving or acting in a certain way, it’s because you’re not asking the right questions. I help students get to the point of asking those right questions,” said Dr. Rottnek.

He’s leaving space for another tattoo and already thinking about his next quote. He’s thinking Maya Angelou said it best. “I’ve learned that people will forget what you’ve said, people will forget what you did, but they will never forget the way you made them feel.”

SLUGR

SLU IPE

ALIGNING WITH THE SLU MISSION

Pole believes that interprofessional collaboration and multidisciplinary teams are supporting a change in the culture of healthcare and community partnerships around addictions.

The IPE programs at SLU are based on the core premise that interprofessional practice and patient-centered care must be applied and demonstrated within the context of wellness, patient safety and quality and social justice. Whether we are addressing addiction, chronic disease prevention or inequities in healthcare and outcomes, effective collaboration and team-based care are essential components aligned with Saint Louis University’s mission.

“You don’t have to fix it all as an individual provider, but you can make sure that your patient gets the right care, at the right time, from the right person,” said Pole. “That’s what’s special about SLU’s mission.”



DAVID POLE, PH.D., MPH

Assistant Professor, Family and Community Medicine; Director of Center for Interprofessional Education and Research

“/” THEY ARE SOME OF THE BRAVEST PEOPLE I HAVE EVER MET. THEY CHOSE TO SEEK HELP IN SPITE OF THE ROAD BEFORE THEM.

—JASMINE DOUGLAS



WHY EVERY STUDENT SHOULD GO TO REHAB

by JASMINE DOUGLAS, M.D. CANDIDATE, CLASS OF '21

PARTICIPATING IN THE HAZELDEN BETTY FORD'S SUMMER INSTITUTE FOR MEDICAL STUDENTS (SIMS) PROGRAM WAS ONE OF THE BEST DECISIONS I EVER MADE.

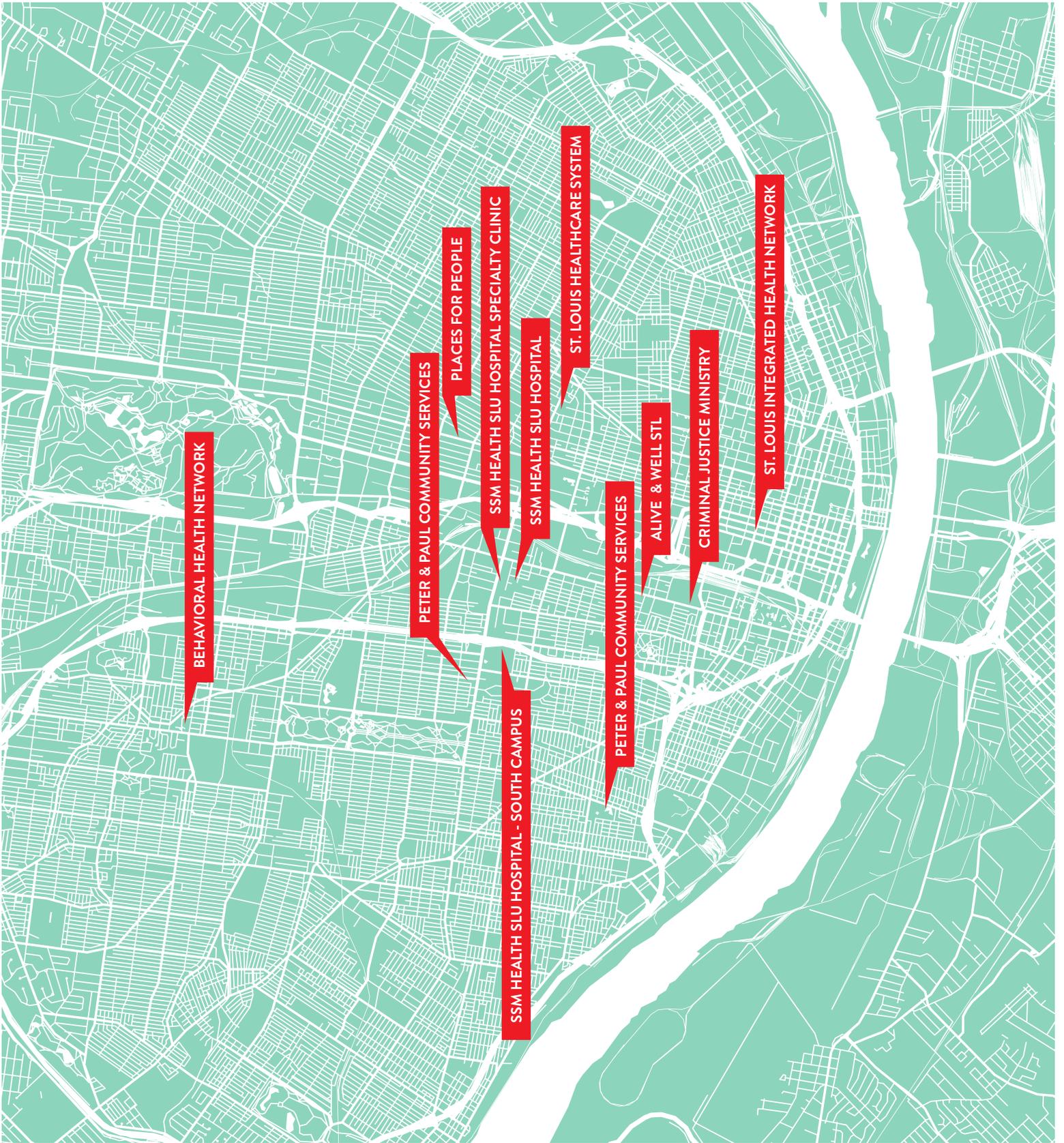
(Editor's note: The Summer Institute for Medical Students program provides an inside look at the dynamics of addiction and process of healing. In this week-long educational program, students learn about addiction treatment for substance use disorders directly from clinicians, patients and families.)

As medical students, we are taught to observe and analyze each situation and create a plan accordingly. Yet during my time there, Program Director Joseph Skrajewski challenged us to step out of our roles and truly become a part of the Hazelden Betty Ford experience, one of the nation's leading residential and outpatient substance abuse treatment programs.

There were breakthroughs, pain, laughter, tears and even a little drama. We talked about different obstacles that plagued us, boundaries that needed to be set, how to deal with grief and how to celebrate the victories.

During our session with Jerry Moe, the National Director of Children's Programs at Betty Ford, he expressed something that was instrumental during my initial steps of self-reflection. We must separate the person from the addiction—they are not one in the same. The residents at Hazelden Betty Ford are no different than me. Their issues were just visible for everyone to see. They are some of the bravest people I have ever met. They chose to seek help in spite of the road before them.

It is our duty as healthcare professionals to treat patients with the respect they deserve and encourage them every step of the way. This is a duty that I am humbled and blessed to take on while I continue to build on the teachings that I received while at Hazelden Betty Ford.

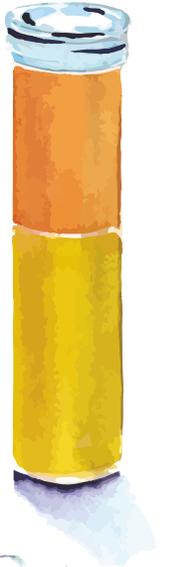


ST. LOUIS REGIONAL CLINICS

What happens within the classrooms at the Saint Louis University School of Medicine is just the beginning of our journey. Our students, faculty and residents share their experiences across the city through their work in many regional clinics—bringing to life the SLU mission.



SUNEAL MENZIES, A&S '07
Executive Director, ARCA



ON THE FRONT LINES OF ADDICTION TREATMENT

ARCA EXECUTIVE DIRECTOR

SUNEAL MENZIES, A&S '07, HAS BEEN A LEADER IN THE ADDICTION RECOVERY FIELD FOR SO LONG HE CAN'T RECALL A TIME WHEN THE FIGHT AGAINST ADDICTION WASN'T PART OF HIS LIFE.

Suneal's father, Percy Menzies, was a Vice President of DuPont Pharmaceuticals, which was first marketing naltrexone in 1989 for opiate dependency. At the time, addiction medicine was dominated by the 12-step model—and there was little role for medication in the conversation around addiction. Percy, however, saw the promise of a medication-first model, and founded ARCA—with limited success—until heroin changed everything.

In 2009, when heroin flooded the market—the federal and state government came to ARCA looking for a medication-first model. Addiction is a brain disease that affects the pleasure system—creating a complex interaction of messenger chemicals, receptors, memory, motivation and emotions. This understanding led to the development of highly effective medications that, when combined with behavioral therapies, restore the disruption caused by drugs and alcohol.

The medication-first model combined with the 12-step therapeutic model, is showing to have significant effectiveness over the long-term—for the widest group of people. “The 12-step model is phenomenal for some groups, the concept of the camaraderie, the banding together, people being united in terms of fighting for the same goals, for those that truly believe in a higher power or spiritual being—it's this great sense of ‘I can take control back over some of the basic things.’ But what science has shown is that addiction, chemical dependency, is a treatable brain disease. The most effective way to really treat the disorder, is through the combination of these non-addictive anti-craving medications coupled with psychiatric and psychological care, when possible on an outpatient basis,” said Suneal.

WHO IS ARCA HELPING?

Everyone. Addiction doesn't discriminate by age, income, or gender. People are struggling with all type of addiction—including opioids, cocaine, gambling, sex and alcohol. “We forget about alcohol sometimes because with the opioid epidemic it's kind of overshadowed, but approximately 270 people die every day in this country from alcohol. That's like a jumbo jet going down every day,” said Suneal.

Today, the demand for ARCA services is significant, and with only 20 providers, much of the need is met via telemedicine. There are 37 telemedicine sites throughout Missouri, six in Iowa, and planned expansion in Nebraska and Arkansas. There are also ARCA facilities in Phoenix, Baltimore and Georgia. In 2018 ARCA saw approximately 48,000 unique patients both virtually and on-site for over 100,000 patient visits.

STANDARDS OF CARE

Because ARCA is a significant partner for many of the mental health centers around the state to provide the prescription and the medication piece of addiction treatment, SLU's Director of Addiction Medicine, Fred Rottnek, M.D., joined ARCA as Medical Director in March 2018, and took a leadership role in standardizing care for addiction.

“Even though we have great guidelines from SAMHSA (Substance Abuse and Mental Health Services Administration), the CDC (Centers for Disease Control and Prevention) and other agencies in general on how to use [addiction] meds, nobody I've seen really has broken it down to what is the first three months of Suboxone treatment look like or buprenorphine? In terms of how often does somebody or should somebody come to the office? How often do you fill a prescription? How do you manage refills? How do you put the therapy piece in? How do you do drug screens?” explained Dr. Rottnek.

The plan isn't necessarily the same for all patients, but the team at ARCA is starting with a template that they can customize for each patient. “We're up to about 35 pages now of not just opioids, but treatment for alcohol withdrawal, alcohol maintenance, tobacco, etc.” said Dr. Rottnek.

“/” **WE FORGET ABOUT ALCOHOL SOMETIMES BECAUSE WITH THE OPIOID EPIDEMIC IT’S KIND OF OVERSHADOWED, BUT APPROXIMATELY 270 PEOPLE DIE EVERY DAY IN THIS COUNTRY FROM ALCOHOL. THAT’S LIKE A JUMBO JET GOING DOWN EVERY DAY.**

—SUNEAL MENZIES

MEDICATION-FIRST MODEL

The new classes of anti-craving medications are radically different than drugs used in the past. These medications are safe, effective and are either non-addicting or have a low abuse potential and are to be used for a limited amount of time. The tools available to the ARCA team include eight FDA-approved medications for addiction—including naltrexone, acamprosate, buprenorphine, varenicline, ondansetron, topiramate, baclofen and modafinil.

Care providers are looking at addiction through a “backwards and forwards” lens at ARCA. While medications restore the neurochemical disruption, advances in behavioral therapies like cognitive behavioral therapy (CBT) are able to complement the anti-craving medication by helping patients achieve long-term relapse prevention.

“ARCA’s been around for close to 20 years. The focus at ARCA has always been on outpatient management of addictive disorders and psych disorders, not a focus on inpatient programs, because we’ve learned over the years the traditional 20 and 30-day rehab programs—most people don’t do anymore, and they don’t really have any effect on long-term sobriety. Usually if somebody goes [to a 30-day program] it’s because they have money, they have insurance, someone has failed every other type of program or the family needs a respite,” said Dr. Rottnek.

“At ARCA we really focus on people recovering at home, getting them through the initial withdrawal from opioids or alcohol as quickly as possible, helping them with maintenance meds, therapy, family therapy, if indicated, other social service supports to help them move along that continuum to thriving,” said Dr. Rottnek.

“ARCA is focused on helping patients manage the stressors and struggles that cause people to say, ‘I need something to feel normal,’” explained Suneal. “When the brain gets hijacked by these substances, then it’s no longer about I want to get high or I want to do any of those things. It’s just about feeling normal. In that sense, that’s where science has come in to say if you can control the biology, urges, cravings, thoughts, desires, wants and physical symptoms that come from going into withdrawal, the outcomes will be substantially better. Once you control that, then it gives patients a chance to really focus on being well.”

“Ultimately we say addiction is an accidental disease. Our goal as treatment providers should be to make it incidental. A patient should look back and say, ‘I have successfully extinguished the need and the triggers that lead me to say I need something to feel okay.’ That’s ultimately where our philosophy and the research has come a long way,” said Suneal.

A PATHWAY FOR STUDENT WORK

A large part of ARCA’s work is training the next generation of providers to become addiction-aware. ARCA has plans to train SLU School of Medicine family medicine and psychiatry residents, nurse practitioners and PAs via preceptorships, mentorships, practicum hours and rotations. ARCA also provides an opportunity for clinical programming for the SLU psychology and social work students.



CHANGING THE CONVERSATION

The climate around treating people with addiction disorders is rapidly changing, as more providers are getting the education and tools to become leaders in beginning these often difficult conversations with their patients and offering tangible solutions. The problem of addiction once thought to be a psychiatry issue—is now rapidly moving into primary care.

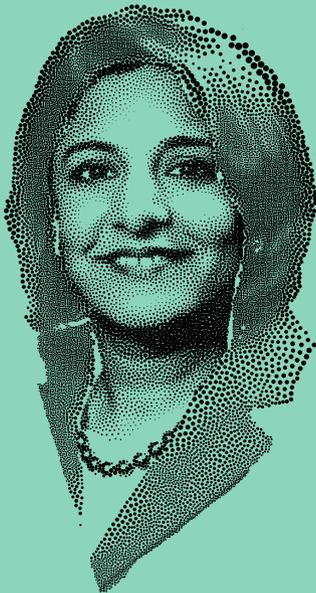
Part of Suneal's job is to precipitate these changes within his leadership role on the Missouri Opioid State Targeted Response Team. "We're starting to see even medical providers—they're less fearful of dealing with this type of patient because it's now a primary care issue. The opioid crisis has created a landscape and a medical environment where every single provider should be on the lookout for [addiction]," said Suneal.

At the same time, illicit drugs are getting stronger as manufacturing practices are shifting to China. While 2018 was the year of heroin laced with fentanyl, the team at ARCA fears that 2019 will see an uptick in cocaine cut with fentanyl—exceptionally more dangerous than heroin plus fentanyl, because it's likely to be used by people with a high tolerance to opiates.

ARCA is working in a climate where many people who are trying a drug for the first time are dying—because drugs are becoming purer, more lethal and stronger. Which makes ARCA's ability to reach more patients and providers more urgent than ever. [SLUGR](#)



ALUMNI IMPACT



DR. RAAFEA MALIK (RESIDENCY '96)

DR. RAAFEA MALIK HAS BEEN WITH CENTERPOINTE HOSPITAL FOR 15 YEARS. SHE HAS WORKED WITH OUTPATIENT PROGRAMS, AND NOW HEADS THE RESIDENTIAL CHEMICAL DEPENDENCY TREATMENT PROGRAM. CENTERPOINTE HOSPITAL, LOCATED IN ST. CHARLES, MO, PROVIDES COMPREHENSIVE BEHAVIORAL HEALTH AND ADDICTION TREATMENT CONTINUUM FOR SENIOR ADULTS, ADULTS AND ADOLESCENTS.

"When I reflect on my training as a resident in psychiatry at Saint Louis University, I believe that what has most influenced my career and the way I interact with my patients is treatment of the whole person, not just their symptoms or addiction. Treating mental illness and addiction requires a holistic approach that includes medication, group therapy and individual therapy.

My advice for all health professionals is to be proactive in asking patients about addiction, and to work towards eliminating the shame associated with addiction and mental illness. Shame doesn't work. We need to provide the proper tools and therapy to help people with this often lifelong chronic condition."

ALL IN



JAYE SHYKEN, M.D.

*Associate Professor for Obstetrics,
Gynecology and Women's Health;
Specialist, SLUCare Maternal Fetal Medicine;
Medical Director, WISH Center
at SSM St. Mary's Hospital*

WHEN JAYE SHYKEN, M.D., DOES SOMETHING, SHE'S ALL IN. SOON AFTER DR. SHYKEN STARTED RUNNING, SHE COMPLETED HER FIRST MARATHON FOR CHARITY. FAST FORWARD—SHE STARTED COMPETITIVE RACEWALKING AND HAS COMPLETED MARATHONS IN 34 STATES.

It's a framework to help understand how she views addiction. "When I started to treat addiction, it became important to me to understand addiction. It's one thing to be sensitive and nonjudgmental, but it's quite a different activity to change the culture around you. If you look at addiction like a medical illness—just like any other medical illness, then we should all be treating it. And I think that's what we're trying to accomplish."

Creating that community-wide, systemic change is just part of what Dr. Shyken and her team are doing through the creation of the WISH (Women and Infant Substance Help) Center at SSM Health St. Mary's Hospital—which provides comprehensive, high-risk maternity care for women who are struggling with substance use disorders. The WISH Center opened within the High Risk Clinic at SSM Health St. Mary's Hospital in October 2014, moved to its own site two years later—and provides holistic care for mothers with substance use disorders and their unborn children.

The WISH Center operates on the foundational principles of medication assisted treatment (MAT)—the use of medications in combination with counseling and behavioral therapies for the treatment of substance use disorders. Pregnant women with substance use disorders are prescribed buprenorphine or they receive methadone from a federally-licensed program. With few exceptions, naltrexone isn't used during pregnancy, however, new moms might be transitioned to naltrexone following delivery. Medication is just the first step for these moms. Behavioral therapy is a key part of the WISH Center model—all patients receive individual and group therapy from a substance use counselor.

In addition, the WISH Center provides wraparound community support, and/or community referrals to non-profit partners for up to two years, which ensures that new moms and their babies get the care they need after delivery—including life skills, parenting skills and even diapers—to help new moms maintain their sobriety.

THE WISH CENTER TEAM

The WISH Center is comprised of a robust and dedicated team, both within the Center and outside the walls of the hospital. In addition to Dr. Shyken, patients are seen by a team of specialists from SLUCare and SSM including nurse practitioners, nurses, social workers (two antepartum, one exclusively postpartum), a sonographer and behavioral health counselor. A pharmacist from the St. Louis College of Pharmacy comes to the Center with her students weekly to provide medication reconciliation and smoking cessation counseling. Dr. Shyken is training a maternal-fetal medicine fellow on his outpatient rotation, and plans to train an addiction medicine fellow—a key part of the Center for Substance Use Disorders and Pain Management at Saint Louis University.

THE FOURTH TRIMESTER

The time after a baby is born is the riskiest time for potential relapse for women with substance use disorders. The knowledge of this fragile time has helped dictate the WISH Center's priorities. The team developed a wraparound two-year program that continues care for new moms after the baby is born—that looks far beyond healthcare needs and into the life of the mom and baby. By developing a network of collaborations, the WISH Center is able to coordinate residential treatment, help with transportation, coordination with insurance providers and more.

THE TIME AFTER A BABY IS BORN IS THE RISKIEST TIME FOR POTENTIAL RELAPSE FOR WOMEN WITH SUBSTANCE USE DISORDERS. THE KNOWLEDGE OF THIS FRAGILE TIME HAS HELPED DICTATE THE WISH CENTER'S PRIORITIES.



“In a normal, low-risk pregnancy, visits are spaced monthly initially and become more frequent as pregnancy progresses. In the case of addiction, visits are more frequent initially as women become stabilized on medication and engaged in the treatment of addiction. At the WISH Center, frequency of visits is dictated by both the pregnancy and the acuity and stability of their addiction. It’s really important that they don’t fall off the rails after they deliver. And interestingly enough, there is a correlation between women who miss their postpartum visit and the risk of mortality. With pregnancy, there’s already a stigma that’s related to addiction. And I tell people all the time that there aren’t many people who are going to congratulate you for not doing something they don’t understand why you ever started to begin with. But we will. Because we recognize how hard the work is,” said Dr. Shyken.

30,000-FOOT VIEW

Dr. Shyken has been treating a latticework of intersecting diseases that occur along with the drug epidemic that have implications for pregnancies in her 20-year career, including sexually transmitted diseases, hepatitis C and HIV.

She’s seen the availability of drugs dramatically change over her career, and her 30,000-foot view of drug use allowed her to see the opioid epidemic as it was unfolding. “I think there were those of us working in medicine who have been in it long enough that recognized the opioid epidemic before everybody else did. And I was concerned about prescribing practices, I was concerned about how medicine was going to pharmacologic care exclusively. A lot of that has to do with what’s paid for. There were a lot of market influences in this sort of thing. I think I saw this happening for a long time.”

As opioid abuse reached epidemic proportions, the number of babies born dependent on these drugs also has increased dramatically. Today, the struggles facing WISH Center patients are both broader and far more lethal. Dr. Shyken and her team are available to treat both chemical dependency and substance use disorders, including cannabis use disorder, benzodiazepine use disorder, opioid use disorder, alcohol use disorder—among others. Behavioral addictions may include gambling, sex and video gaming—a newly-recognized addiction.

EMPOWERING FOR MOM, HEALTHY FOR BABY

Most WISH Center patients become the primary care provider for their babies once the baby is born. And while a number of the WISH Center babies are born with a need to go through withdrawal, it turns out that the best treatment for a baby who has been exposed to opioids—is their mother—which is incredibly empowering.

“Much like what we’ve assumed works for an adult, medication replacement has been for a long time the model for newborns. But, if you are experiencing shaking, the thing to do at first is to console the baby. What we have treated with morphine for years, those symptoms can be treated by keeping mom and the baby together,” explained Dr. Shyken.

Fewer than 10% of well babies require any medication for withdrawal, and even fewer require a trip to the ICU. In addition to the practice of keeping mom and baby together, the American Academy of Breastfeeding Medicine encourages breastfeeding for new moms who are engaged in their own sobriety in some way.

The WISH Center team is teaching moms a wide range of parenting skills to ensure a smooth transition into parenthood. “We’re using non-pharmacologic interventions first, so we teach moms how to handle their babies to decrease excessive stimulation, and how to swaddle, which is really important in helping them not get over stimulated,” said Dr. Shyken.



ADVOCACY: IN SUPPORT OF MOMS AND BABIES

Dr. Shyken and her team are fierce advocates for their patients outside of the delivery room as well—for long-term systemic change—in Jefferson City and on Capitol Hill. For pregnant women who need addiction medication after their baby is born, they are testifying to extend Medicaid. They also provide advocacy support to the Division of Family Services. She is the 2019 recipient of the Missouri Chapter of the National Council on Alcohol and Drug Abuse (NCADA) Pioneer Award in recognition of her career dedicated to pregnant women with substance use disorders.

Dr. Shyken and the WISH Center team view their role as a distinct privilege. They recognize they have a small but powerful window—pregnancy and childbirth is a fleeting, extraordinary moment over a lifetime, yet they are welcomed into the lives of so many women and babies—helping to foster healthy families for life.

**THEY'RE
ALL
IN.**

ALUMNI IMPACT



DR. GEORGE GROSSBERG (M.D. '75, RESIDENCY '79, FACULTY)

“WITH SO MUCH RECENT FOCUS ON OPIOID ADDICTION, MANY HAVE LOST SIGHT OF THE BIGGER ISSUE IN OUR SOCIETY, WHICH IS ALCOHOL ABUSE. THIS IS THE MOST COMMON ADDICTION, AND THE MOST COSTLY—IN BOTH FINANCIAL AND EMOTIONAL TERMS. ITS IMPACT, ALONG WITH OTHER ILLICIT DRUGS, IS BECOMING MORE AND MORE PREVALENT IN OLDER ADULTS.”

Dr. Grossberg is the Samuel W. Fordyce Professor and Director of Geriatric Psychiatry in the Department of Psychiatry at Saint Louis University School of Medicine.

Dr. Grossberg treats geriatric patients who suffer from a range of neurocognitive disorders, including Alzheimer’s disease. His areas of expertise include late-life depression, delirium, psychiatry in the nursing home setting and geriatric psychopharmacology.

ONE OF THE MOST DIFFICULT ASPECTS OF CANCER IS THE SUSTAINED AND CONSISTENT NEUROPATHIC PAIN EXPERIENCED BY 40-80% OF PATIENTS—BOTH SURVIVORS AND THOSE UNDERGOING CHEMOTHERAPY TREATMENT, EVEN WELL AFTER TREATMENT HAS ENDED. THIS PAIN CAN CAUSE SLEEP DISTURBANCES, ANXIETY, STRESS AND OTHER PROBLEMS, AND BECAUSE THERE ARE SO MANY HIGHLY EFFECTIVE CHEMOTHERAPY DRUGS, LARGE PATIENT POPULATIONS ARE DEALING WITH PAIN FOR MUCH OF THEIR LIVES.

Not only does prolonged pain lower the quality of life for these individuals, but many suffer from chemotherapy-induced cognitive impairment (CICI) or what's commonly referred to as "chemo-brain." CICI is a major neurotoxic side effect of widely used chemotherapy drugs, and symptoms can include decreased processing speed, memory, executive functioning and attention. No FDA-approved drugs are currently available to cure or prevent the symptoms. Even further, many turn to opioids to ease their chronic pain. And with the United States in the grip of an opioid crisis, opioids are but a temporary band-aid with both serious side effects and ramifications.

Daniela Salvemini believes there's another path—a path with less pain, less suffering, and less addiction.

A NOVEL IDEA

Salvemini, a professor in the Department of Pharmacology and Physiology at Saint Louis University, remembers the moment that sparked her interest in researching pain: "One day my mother called me,

she said that one of her best friends had breast cancer, and she was on opioids. And she made a remark that she was actually experiencing more pain. She asked me if I knew anything about this—why would opioids appear to increase pain sensitivity." At that point in 1992, Salvemini was mainly working on chronic, inflammatory diseases.

She started looking into why opioids led to hyperalgesia, a condition where the patient receiving opioids for pain treatment actually experiences increased pain sensitivity. Salvemini started to research how, mechanistically, a few doses of opioids cause pain. She and her partners discovered the role of superoxide in the development of opioid-induced hyperalgesia. They developed a small molecule antagonist of that free radical, which, when given simultaneously with morphine, would actually completely prevent the development of hyperalgesia and the development of tolerance against opioids.

At that time, there was a great deal of resistance in the community that opioids could actually cause pain. "So we and others had to start the field from scratch and go at it very slowly," said Salvemini. "In general, the notion that opioids caused hyperalgesia and increased pain sensitivity was very novel. And there was resistance in terms of bringing that novel idea out there." But over time, more people got involved, Salvemini's team received additional funding, and the stage was set for further research and testing the concept that opioids can cause profound inflammation in the central nervous system. "The field now is well established. It took a long time," she said.

THEY DEVELOPED A SMALL MOLECULE ANTAGONIST OF THAT FREE RADICAL, WHICH, WHEN GIVEN SIMULTANEOUSLY WITH MORPHINE, WOULD ACTUALLY COMPLETELY PREVENT THE DEVELOPMENT OF HYPERALGESIA AND THE DEVELOPMENT OF TOLERANCE AGAINST OPIOIDS.



PARTNERS AND SUPPORT

Salvemini was recently named the Director of the new Henry and Amelia Nasrallah Center for Neuroscience at Saint Louis University, dedicated to fostering and facilitating interdisciplinary research and education in neuroscience within the School of Medicine and across several colleges at the University. The Center was made possible through a generous \$300,000 endowment from Dr. Henry Nasrallah, chair of the Department of Psychiatry, and his wife, Amelia, a research psychologist.

“We both hope that this gift will elevate the visibility of neuroscience research and education in the School of Medicine and across SLU Under the strong leadership of Daniela Salvemini,” said Dr. Nasrallah in a recent statement. A testament to Salvemini’s dedication, contributions to the field, and talent, the new appointment will provide her even more opportunity to continue her research and advance the critical work of understanding pain within the context of cancer and opioid use.

Salvemini was also recently awarded \$4.5 million in grant money from the National Institutes of Health (NIH) to study the pain related to chemotherapy and opioids. Much of that funding, \$2.8 million, will be allocated directly to researching and understanding CICI, while \$1.7 million will go toward the side effects of opioids, with a focus on the addiction that can potentially arise and lead to withdrawal symptoms after the drug has been stopped.

One of Salvemini’s most significant findings is the concept that pain can occur even in the absence of a disease. Even after cancer has been eradicated from the system, chronic pain can set in and wreak havoc on an

individual’s nervous system and quality of life. When specifically honing in on the use of opioids, Salvemini has seen increased pain sensitivity. “If we take normal rodents and we give them opioids,” she said, “you see this profound neuro-inflammatory processes in the central nervous system. And if you use tests to administer opioids when no injury has occurred, you will see an increased pain sensitivity. This tells us that the opioid itself can cause pain.” This results in the perception that the opioid is ineffective, leading to the prescribing of a higher dose. “My goal,” Salvemini continued, “is to come up with novel medications that you can give in conjunction with the opioids to make the opioid highly effective at very low doses, without the potential for dependence, reward and addiction.”

THE CANCER IS GONE, THE PAIN SETS IN

While the NIH funding partially funds the opioid research, the bulk of the money is apportioned to the study of chemotherapy and traumatic nerve injuries. “We look at chemotherapy because I have particular interest in that area,” said Salvemini. “About 10 years ago, looking at approaches to treating the side effects of chemo, such as pain and sleep disturbances, was not really a high priority. We were more concerned about killing cancers. But now that we have some really nice agents that are very effective in attacking cancer, leading to higher survival rates, we also have a lot more patients that will be in pain for a long time.” About 25 to 30 million people in the United States alone live with neuropathic pain, which is the most challenging pain to treat.

“I think we’re getting closer and closer to finding a treatment approach,” she said. “Because we are realizing that neuro-inflammation is so important. Up until about

Continued on page 24

“/” MY GOAL IS TO COME UP WITH NOVEL MEDICATIONS THAT YOU CAN GIVE IN CONJUNCTION WITH THE OPIOID TO MAKE THE OPIOID HIGHLY EFFECTIVE AT VERY LOW DOSES...

—DANIELA SALVEMINI, PH.D.

ALUMNI IMPACT



DR. SUBBU SARMA (M.D., '99)

“MY PROFESSORS AT THE SLU SCHOOL OF MEDICINE WERE NURTURING, PATIENT-CENTERED AND BELIEVED IN TREATING THE WHOLE PERSON. THEY TAUGHT ME TO FOCUS UPON NOT ONLY MY PATIENT’S PRIMARY PHYSICAL COMPLAINTS, BUT ALSO THEIR EMOTIONAL STATE, RELATIONSHIPS AND SOCIAL STRESSES—THEIR MIND, BODY AND SPIRIT. I’M OFTEN REMINDED OF A QUOTE FROM ONE OF MY PROFESSORS WHO SAID ‘IT’S YOUR NAME AT THE FOOT OF THE PATIENT’S BED AND ON THEIR CHART—YOU HAVE TO BE RESPONSIBLE FOR EVERYTHING THEY NEED.’”

I became interested in addiction medicine shortly after completing my residency in psychiatry. I found myself intrigued by the development of some novel medications that appeared to have application toward the treatment of addiction. Seeing first-hand in my clinical practice how addiction affects so many patients in all different walks of life, I knew there was great need for improvement and change. I’ve been inspired by the great progression in care for patients with substance use disorders through better treatment options—such as Suboxone for opioid use disorder. It is important to mention that the current attitude of Addiction Medication toward patients is one of great compassion and understanding. Advances in neuroscience now support that there is a genetic susceptibility

toward substance use disorders. In many cases, an individual’s biology has already made them highly vulnerable, and in many cases an opioid use disorder can develop rapidly, following a prescription due to surgery or injury. Terms such as addiction and habit have been replaced in ICD-10 by the substance use disorder group, and patients are first and foremost seeking our help. The disease of substance use disorders is not the patient’s fault any more than the patient suffering from diabetes or hypertension. The lowering of stigma associated with seeking treatment is important and will allow expansion of treatment to people who otherwise might not have sought it out in the past. The advances in medication have improved upon our treatment success rate.

10 years ago, all of the therapies used to treat pain were mainly focused on a single cell, the neuron.” Scientists now recognize that neuro-inflammatory processes are key to understanding and treating pain. Neuro-inflammation activates immune cells and glial cells—cells which surround neurons. When glial cells are activated, they release mediators that then activate the neuron. But glial cells themselves are also important in modulating synaptic transmission, the biological process by which a neuron communicates with a target cell across a synapse. “So what we’ve been proposing (SLU researchers and other university research partners) is that we should think about not only targeting the neuron, but also targeting the glial cells, which are just as important to modulate neuronal excitability,” Salvemini said. “My mission is to see whether we can come up with strategies that can alleviate this [pain] so we can really have a major impact on human suffering and quality of life for many patients.”

In addition to her own work, Salvemini mentors and supervises students at the University. She works with several graduate students and post-doctoral students, each of whom has their own specific interest in the field, such as chemotherapy that kills solid tumors or

those that focus on breast, lung, and colon cancers. “They’re probably in the lab with me, conducting solid experiments, for about three or four years,” she said.

A PASSION FOR DISCOVERY

Salvemini, her team, and her inter-university collaborators are excited that the NIH is channeling a significant amount of funding and resources toward tackling the pain problem, and are thrilled with the progress they’ve made. “It’s going to be an exciting time for discovery of non-narcotic agents,” she said. Inevitably she thinks back on her mother’s friend, and the moment she decided to embark on this journey. “I think you have to do this with a passion,” she said. “Because it’s not easy and it takes a long time, especially when you come up with different concepts and approaches. You have to have passion and determination, to never give up and continue. Yes, experiments can fail, but once you hit something good, then it’s exciting.”

Not only is it exciting, but it’s work that directly impacts those who are suffering, increasing their health and wellness, increasing their quality of life and increasing their very survival. [SLUGR](#)

“ I THINK YOU HAVE TO DO THIS WITH A PASSION, BECAUSE IT’S NOT EASY AND IT TAKES A LONG TIME, ESPECIALLY WHEN YOU COME UP WITH DIFFERENT CONCEPTS AND APPROACHES. YOU HAVE TO HAVE PASSION AND DETERMINATION, TO NEVER GIVE UP AND CONTINUE. YES, EXPERIMENTS CAN FAIL, BUT ONCE YOU HIT SOMETHING GOOD, THEN IT’S EXCITING.

—DANIELA SALVEMINI, PH.D.



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Any physician, nurse practitioner, or physician assistant can get the buprenorphine waiver, and the state of Missouri is reimbursing for providers who practice in underserved areas who get their waiver.

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COMMUNITY IMPACT

SLU HEALTH RESOURCE CENTER

The SLU Health Resource Center (HRC) provides basic medical services such as work or school physicals, acute care visits and laboratory testing at no cost to uninsured or underinsured patients in North St. Louis. SLU student volunteers at the clinic learn to perform a comprehensive history and physical exam and learn to identify and address behavioral and social factors relating to addiction. In line with the goal of providing holistic care, the HRCs weekly clinics also include behavioral health volunteers from the SLU Department of Psychology and Medical Family Therapy program to provide more targeted evaluation, counseling and referral for patients identified to be struggling with substance use disorders.

The Health Resource Center is an open door clinic that has been providing several critical health services to the North St. Louis community since 1994. Services are free so that anyone—regardless of income or other circumstance—can seek attention at the clinic. As a result, the HRC relies 100% on donations and fundraising.



Danielle Boisvert & Jeanna Knight, regular HRC volunteers from the Medical Family Therapy program.