# Outlook

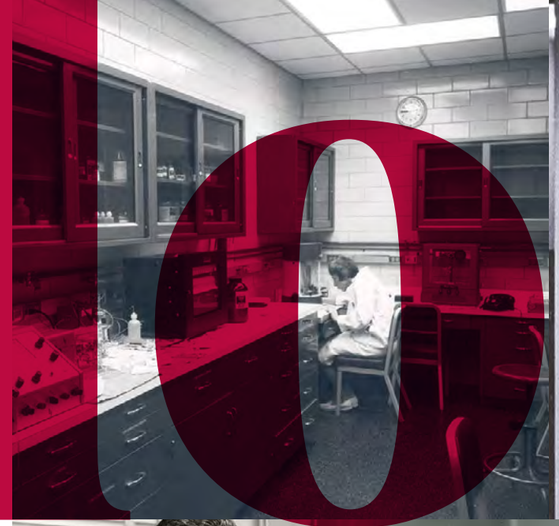
AUTUMN 2026

## Moving medicine *forward*



WashU Medicine

# Outlook

















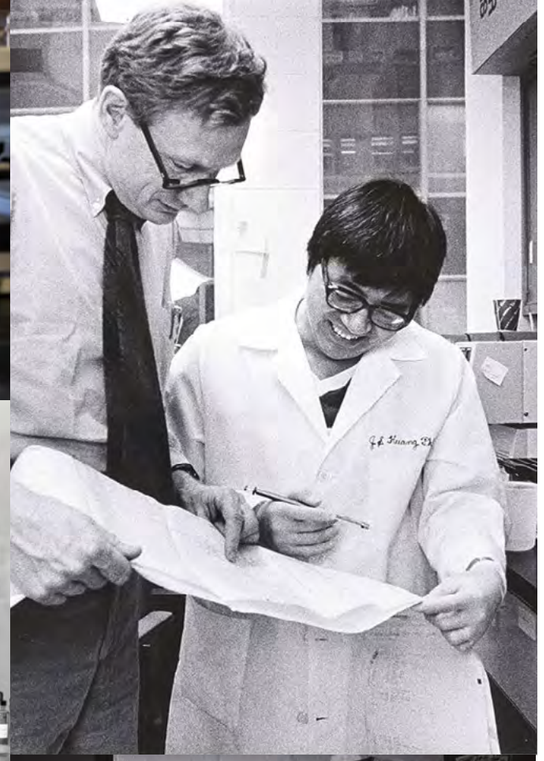














# Outlook


WASHU MEDICINE
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# From the Dean



I don't know about you, but I spent part of my summer transfixed by the FIFA World Cup. As Norway made an improbable run to the quarterfinals, I was mesmerized by the scenes of thousands of fans doing the "Viking row" and chanting in unison to motivate their team. Watching those crowds, it occurred to me that, unlike paddling a canoe or a kayak, rowing involves facing the back of the boat. You look backward to move forward – an apt metaphor for the transitional moment in which we find ourselves here at WashU Medicine. Only by understanding where we've come from can we move proudly and resolutely into the future, each of us playing a vital role.

Moments like these are full of marvelous potential and I am as energized by the possibilities I sense walking our halls as I am deeply honored and humbled by your warmth and excitement in welcoming me.

As I look back and reflect on your accomplishments under Dean Perlmutter's leadership, it is clear that the last ten years have seen increased size and scale in your capacity to care for patients, perform transformative research and educate the next generation of leaders in their fields.



*"Only by understanding where we've come from can we move proudly and resolutely into the future, each of us playing a vital role."*

I can see that everyone here is steadfastly dedicated to WashU Medicine, and each person – from clinician to scientist to faculty member to staff – contributes to the tripartite mission. The groundwork that's been laid is truly amazing to behold and we now have an opportunity to deepen our impact and strengthen our ties to each other and to the community around us.

I'm thinking of the opportunities presented by our new clinical affiliation agreement with BJC, and the tremendous potential that can only be fully realized if we work together as a team. I'm thinking of the way we can grow the connective tissue between our campus and Danforth. And I'm thinking of how those of us on the medical campus can strengthen our ties to each other, not just through the collaboration based on shared goals we're known for but by becoming familiar with work that falls outside of our collaborative hubs. I want everyone to see what I see – the breadth and depth of education, clinical care and research happening in our classrooms, clinics and labs.

If you take the Link from the MCC toward EPNEC and the McDonnell Pediatric Research Building and take a moment to look down, you'll see The Ellen S. Clark Hope Plaza, a space originally designed by Maya Lin, now being restored after years of construction on the Steven & Susan Lipstein BJC Institute of Health Vertical Expansion. When I walk that portion of the Link, I can't help but stop and take a moment to look at the progress on the plaza. There's something very beautiful about seeing the trees, the gardens, the pond – a tranquil space beginning to take shape amid the tall buildings after the bustle of construction.

I'm taken by the rush of beauty that can come after a period of steady activity. So much has been built on this medical campus over the last decade – not just state-of-the-art buildings but an incredible team of clinicians, scientists, educators and staff, and a unified sense of mission and purpose. All that growth is dazzling.

That this beautiful plaza sits at the nexus of BJC and WashU Medicine feels particularly appropriate. Together, our two institutions are now rowing forward in sync, knowing where we've come from and committed to a bright future of delivering exceptional, compassionate care to every patient, supporting the research that will transform that care, and educating those who will deliver it and push it even further.

By the time you read this, The Ellen S. Clark Hope Plaza will be completed and ready for those who need some time by the water or among the trees. As our seasons begin to change once again, please join me in looking back at what has been built, and moving forward toward the depth of beauty we will all create, together.

**SINCERELY**,



**BRUCE**

# Mission in motion



# Education. Care. Research.

These are not separate pursuits. They are deeply connected expressions of a single purpose: improving human health.

**AT WASHU MEDICINE,** we believe to move medicine forward we must invest in what comes next. That means new approaches in education to prepare physicians for a rapidly evolving world. Research discoveries that accelerate the path from scientific insight to real-world impact. And expanding access to specialized care so we can help those patients who need it most. Each part of our tripartite mission strengthens the others, creating a cycle of innovation that accelerates progress and amplifies impact.

Changing the world and improving health for all begins with a foundation strong enough to support the leaders and breakthroughs yet to come.

Here, today's students will become tomorrow's leaders. Today's discoveries will become tomorrow's treatments. And today's patients will inspire the questions that lead to tomorrow's breakthroughs.

# A new way of *learning*

**BY KRISTINA SAUERWEIN**

The future of medicine requires physicians who can adapt to increased complexity, connect with patients on a more personal level and lead change in a constantly evolving healthcare landscape.

Recognizing that challenge, WashU Medicine launched the Gateway Curriculum in 2020, marking the first reenvisioning of its MD program in more than two decades while redefining what medical education can be. Designed to connect the classroom and the clinic from the start, Gateway integrates basic science, clinical training, mentorship and community engagement into a more personalized and meaningful educational experience that prepares students to shape medicine's future.

A signature of the curriculum is the EXPLORE program, a component that guides students along individualized pathways in advocacy, education, innovation or research. The program empowers learners to discover their academic purpose while developing the skills modern medicine demands.

"By immersing students early in patient care, engaging them in communities and supporting their growth through longitudinal coaching and the EXPLORE program, we are equipping them not just to succeed in today's health system, but to transform the one that comes next," said Eva Aagaard, MD, vice dean for education and the Carol B. and Jerome T. Loeb Professor of Medical Education. "We're shaping them into doctors who listen deeply, think critically, communicate clearly and act with compassion in every patient encounter, and also teaching them ways they can shape the future of health."












## Sharon Abada

### CREATING A CURRICULUM WHERE STUDENTS SHINE

Rheumatologist Sharon Abada, MD, trained at WashU Medicine before the Gateway Curriculum launched. But fortuitous timing meant she was able to take part in shaping the evolution of medical education at WashU Medicine – and in turn, the experience helped shape her into the physician she wanted to be.

Abada trained under a traditional curriculum used by most U.S. medical schools: two years of learning the basic sciences, including human anatomy and physiology, pathology and pharmacology, followed by two years of clinical rotations. During her second year of medical school, in 2019, leaders in the Office of Education asked her to serve on a student committee to help design a new curriculum.

"The traditional curriculum was rigorous and successful," said Abada, now a clinical assistant professor and clinician educator at Stanford University. "But it was clear that medicine and medical education were changing and we needed to adapt.

"There were really important, responsible people in a room and then us medical students at the same table," she said. "That was meaningful. It showed me that our insider knowledge about how students think was valued."

Student groups, along with faculty groups, presented schematics that addressed questions such as: How long should preclinical training last? When should students enter clinical immersions? Where does the United States Medical Licensing Examination fit in?

The students' suggestions, such as early clinical exposure, became an integral part of the Gateway Curriculum.

For Abada, the process was transformative. "I felt very welcome in a space that I didn't think I belonged in," she said. "It built my confidence that I had a voice that mattered and could be part of creating something for future generations."

At Stanford, she continues her passion for teaching and clinical care by building her career as a clinician educator.





***"The idea is that they're going to grow into the best version of themselves, both personally and professionally. That's very difficult to do, and WashU Medicine did it."***

"What's remarkable is that WashU Medicine's curriculum allows every student to shine in the way they're meant to shine," Abada said. "The idea is that they're going to grow into the best version of themselves, both personally and professionally. That's very difficult to do, and WashU Medicine did it."

*Abada graduated WashU Medicine in 2021 and completed her internal medicine residency and rheumatology fellowship at the University of California, San Francisco (UCSF). She was appointed to her faculty role at Stanford in 2026.*

## Sam Fallon

### THE MOMENT THAT CHANGED EVERYTHING

During his last year of medical school, in 2026, Sam Fallon, MD, had a moment when he felt as if he had grown from medical student to junior doctor.

He was on an advanced clinical rotation in the emergency room at Barnes-Jewish Hospital caring for a patient with uncontrolled, intense pain caused by his terminal cancer. The patient asked Fallon about hospice.

A month earlier, Fallon had taken an in-depth elective on hospice and palliative care. "I found myself directly drawing upon the skills I had learned," Fallon said. "Although talking to a dying patient is never easy, I felt confident because the course included extensive practice of having sensitive end-of-life conversations with patients."

Known as Keystone Integrated Science Courses, the two-week to four-week specialized classes are taken during the final phase of the Gateway Curriculum. Students can select from more than a dozen courses that integrate knowledge about basic science, clinical medicine, health systems and societal effects of emerging health topics.

For his other integrated science course – students are required to take two – Fallon learned about opportunities for renewed hope for those with failing hearts, livers and other organs. The class on transplant immunology – a growing field he plans to pursue – focused on the rapid advances in drug therapies and surgical procedures.

"Transplantation is one of the few interventions in medicine where you can quite literally give someone a decade or more of life they otherwise wouldn't have had," Fallon said. "I'm still in awe when I think about how you can take a failing heart or liver, replace it and watch someone get their life back."

The transplant course blended high-level clinical exposure with detailed classroom teaching. In the mornings, Fallon joined liver and heart transplant teams on rounds, assisting pre- and post-transplant patients.

During afternoons, Fallon shifted to small-group sessions led by WashU Medicine's nationally recognized transplant surgeons and physicians, and researchers studying transplanting an animal organ into a human. Fallon learned all about gene-editing strategies to make a pig-to-human organ transfer into a clinical reality.

"The field is evolving and looking at things in new ways," Fallon said. "Being on the cutting edge of discoveries and patient care excites me. And the combination of intensive, tailored bedside experience plus advanced, faculty-driven science seminars – delivered specifically for medical students but at a level for residents or fellows – have prepared me for residency and beyond."

*Fallon graduated from WashU Medicine in 2026 and is an internal medicine resident at Vanderbilt University Medical Center in Nashville.*





## Leah Tolby

### FINDING HER PURPOSE

After graduating college, Leah Tolby, MD, knew she wanted to be a doctor like her father. But she felt unsure about what she wanted to do in medicine.

Tolby envisioned herself in a white coat guiding patients through a health crisis with expertise and empathy. But curiosity was also prodding her into medical research, where she could help dismantle disease in a lab. Then again, teaching was also a passion – education was her undergraduate minor, after all.

The built-in flexibility of the Gateway Curriculum gave Tolby the freedom to explore all three.

Like her classmates, she gained early clinical exposure that allowed her to experience various specialties. She liked the intellectual challenge of caring for patients with interconnected illnesses in the intensive care unit (ICU), while also building meaningful relationships with patients. One woman even invited Tolby to participate in her wedding.

"As medical students, we have the gift of time," Tolby said. "Residents and attendings are juggling so many responsibilities that they can't always sit at the bedside for long, but students can. Spending that extra time getting to know patients helps the healthcare team with decision-making and reminds us why we're doing this in the first place."

Caring for ICU patients also piqued her interest in better understanding disease process and organ interaction. After consulting with her mentors, Tolby customized an EXPLORE elective that allowed full-time immersion in a basic science lab for four months without worry of assignments or other obligations.

She joined the lab of Andreas Herrlich, MD, PhD, a professor of medicine and director of translational medicine in the Division of Nephrology. His research revolves around interorgan crosstalk, which refers to how an injury in one organ can ripple through to others.

Tolby's research focused on how acute kidney injury can harm the lungs.

"Basic science in the lab takes a lot of time, and it's hard to get this level of concentrated research during residency," said Tolby, acknowledging that the experience helped cement her decision to specialize in critical care and pulmonology, along with a desire to conduct clinical and translational research.

The curriculum's flexibility also enabled Tolby to pursue her other interest: medical education. During her first year, she selected EXPLORE's education pathway, which introduced her to the fundamentals of curriculum design and medical education research. Her interest in academic medicine led her to the Office of Education, where she helped assess when students should take the United States Medical Licensing Examinations. "Dr. Aagaard and faculty listened to our feedback and concerns," she said.

"I entered medical school knowing I wanted to be a physician," Tolby said. "But the Gateway Curriculum helped me figure out the kind of doctor I want to be at a patient's bedside, in the lab and in the classroom."

*Tolby graduated WashU Medicine in 2026 and is a resident in internal medicine at UCSF Medical Center.*

***"The Gateway Curriculum helped me figure out the kind of doctor I want to be at a patient's bedside, in the lab and in the classroom."***

## Victoria Ogbeifun

### THE LEGACY CONTINUES

Victoria Ogbeifun's top criteria in choosing a medical school was its level of commitment to underserved patient populations, such as immigrants and refugees. While many schools also touted it as a top priority, WashU Medicine showed Ogbeifun its dedication through the Gateway Curriculum.

During faculty interviews and a campus visit, Ogbeifun saw how community engagement was threaded throughout students' studies. The school's commitment echoed in the raw history lessons about the closure of historically Black hospitals in St. Louis and challenges to accessing tertiary care in rural communities in Missouri and Illinois. She felt excited by the student-led community outreach projects that weren't treated like a checkbox but rather a way of life.

The clear alignment between the curriculum and her values convinced Ogbeifun, now a third-year medical student, to train at WashU Medicine.

"I grew up seeing patients from marginalized communities being ignored or dismissed in healthcare," said Ogbeifun, referring to the underserved patients in rural southwest Missouri, where she was raised.

As a child, she immigrated with her family to the U.S. from Germany. She found herself acting as a translator for her mom, who spoke Croatian, while also managing family doctor appointments.

"That was my first exposure to healthcare," Ogbeifun said. "I wanted to be the kind of physician who becomes a part of the community I serve, who doesn't just show up when it's convenient but stays, listens and builds trust. I learned early on how important it is to meet people where they're at and make them feel seen and heard."

The Gateway Curriculum's EXPLORE program has provided a roadmap to achieving her goals: structured and protected time, faculty mentors and professional development to pursue global health and advocacy.

EXPLORE provided the impetus for Ogbeifun to serve as an English as a Second Language teacher to high school girls for Archway Refugee Connections, a nonprofit supporting refugee families in St. Louis. Ogbeifun also helped lead efforts to translate online resource guides into multiple languages for non-English speakers served by the Criminal Justice Mission, a nonprofit assisting people with criminal backgrounds.

Ogbeifun's mentors at the medical school encouraged her to turn an observation into action. When she arrived in St. Louis, she had to blindly email nonprofits to find a place where she could volunteer. She wondered why the process was so difficult.

Her mentors directed her to Heather Hageman, MBA, director of the WashU Medicine Community Engagement Hub and Office of Collaboration for Interprofessional Education, which fosters teamwork across health professions. Together, they created an online repository of St. Louis-area nonprofits where students have had impactful, positive experiences. Now live and accessible to all, the Community Engagement Hub makes it easier for students to find and collaborate with trusted community partners.

"Community engagement isn't an optional add-on for me – it's central to the kind of physician I want to be," Ogbeifun said. "WashU Medicine's curriculum is helping me turn my vision into action."

*Ogbeifun is on track to graduate in May 2028 and plans to apply for a residency in emergency medicine.* ◆

# Closer to *home*

BY MARTA WEGORZEWSKA

For one Illinois mother carrying twin boys with a life-threatening diagnosis, a telemedicine model turned the scariest moment of her pregnancy into a story of survival — reshaping what rural maternal care can look like.



Jennie Gibbs was 15 weeks pregnant with identical twin boys when her doctors found a life-threatening problem: the twins shared a placenta, and a tangle of abnormal blood vessels was sending too much blood to one baby and too little to the other. Left untreated, the condition could kill one or both boys.

"We didn't know if we would be bringing babies home at the end of this pregnancy," Jennie recalled. "We were in a dark place in our lives."

For a family in rural Benton, Ill., with three kids under age 6 at home, that kind of diagnosis usually means traveling over two hours each way for every appointment, racking up gas costs and time away from work and family.

It's a dilemma playing out across rural America, where access to specialized pregnancy care is vanishing. As rural hospitals continue closing labor and delivery units, families with high-risk pregnancies are left hours from the nearest specialist.

Jennie's story is proof that this gap can be closed.

## A new model of care

Since launching in 2023, a telemedicine model implemented by WashU Medicine has supported more than 2,500 high-risk pregnancies in Carbondale, Ill., letting patients see local doctors in person while WashU Medicine specialists join by video, guiding treatment and coordinating care. If a patient needs to transfer to a WashU Medicine maternal fetal medicine specialist at Barnes-Jewish Hospital in St. Louis, they arrive with an established relationship already in place.

"The benefits of this care model for patients living in rural areas are enormous," said Jeannie Kelly, MD, associate professor of obstetrics and gynecology at WashU Medicine and director of the Division of Maternal-Fetal Medicine & Ultrasound, who helped develop the model with colleague Jeffrey Dicke, MD. "They stay with the local physicians they know and trust, while gaining access to highly specialized care that often is not available close by."

Born from the telehealth expansion of the COVID-19 pandemic, the program is now in its third year and is the only one of its kind in the Midwest.

"Co-managing patients with WashU Medicine shows that care can be delivered in different ways in rural areas," said Danielle Tomevi, MD, the Carbondale obstetrician-gynecologist who helped care for Jennie. "It brings together the strengths of academic medicine and community care to treat the whole patient – fully aware of who they are, where they live and what they need."

*"When the boys are old enough, we want to tell them how loved they were before they ever took their first breath."*

## A critical collaboration

That co-management became critical when Jennie's twins were diagnosed with twin anemia polycythemia sequence – tiny, connected vessels slowly draining blood from one baby into the other, leaving both at risk of heart failure. Over the following months, Jennie had 24 ultrasounds to track the babies' blood flow, most performed in Carbondale by sonographers trained through a year-long WashU Medicine program. WashU Medicine specialists reviewed the scans remotely the same day. Of her 32 prenatal visits, Jennie traveled to St. Louis for only four of them.

"Because we have a strong combination of highly trained sonographers in rural practices, state-of-the-art equipment at our Carbondale site and technology that lets our specialists read ultrasounds remotely, we're catching problems that might otherwise be missed," said Katherine Bligard, MD, assistant professor of obstetrics and gynecology at WashU Medicine, who diagnosed the twins and later led the surgical team. "Earlier diagnosis can make a real difference in outcomes for moms and babies."

The model is expanding. In Rolla, Mo., WashU Medicine physicians have trained sonographers at Phelps Health Hospital, where specialists have remotely read roughly 4,500 ultrasounds since last year, working with obstetrician Wesley Harden, MD, and other local clinicians. "General obstetrics is not as simple as it used to be, with rising rates of obesity, diabetes, substance abuse and other conditions that complicate pregnancy," Harden said. "WashU Medicine physicians bring specialized expertise into our communities and provide another layer of support for rural doctors who already manage a lot of complexity."

## Surgery in the womb

When it was time for the twins' surgery, Jennie and her husband, Jake, traveled to Barnes-Jewish Hospital, where WashU Medicine maternal-fetal medicine specialists – among the few in the country trained to perform fetal surgery – sealed the connecting vessels in a delicate procedure to restore balance to the twins' circulation.

Jennie opted to stay awake through the four-hour procedure, watching on a monitor as surgeons threaded a tiny camera near the placenta and used a laser to seal the vessels connecting her sons. The team – led by Bligard at the WashU Medicine Fetal Care Center – included fetal-medicine specialists, anesthesiologists and neonatologists working alongside Barnes-Jewish Hospital staff. Within a week, the twins' blood-flow measurements Jennie had been charting since her diagnosis trended back toward normal.

"It was the most amazing feeling," Jennie said. "We are forever grateful for our care teams and for the support from our community at home. When the boys are old enough, we will tell them how loved they were before they ever took their first breath."



The surgery was successful. And for the rest of her high-risk pregnancy – with family, friends and a full-time teaching job waiting for her at home – Jennie didn't have to keep making that two-hour drive.

## What comes next

Kelly sees this as just the beginning. Currently, WashU Medicine and Barnes-Jewish Hospital jointly manage 500 high-risk pregnancy patient transfers a year from outlying areas – about 15% of the hospital's deliveries – and Kelly envisions a future where more of those patients could safely deliver closer to home, with WashU Medicine specialists joining local labor and delivery teams by video. "Traveling far from home to give birth can place an emotional and financial strain on families," she said. "Telemedicine gives us an opportunity to support hospitals in rural areas, working with local teams to keep more patients close to home on one of the most challenging – and joyous – days of their lives."

When it was time to deliver, Jennie and Jake made their fifth and final drive to St. Louis. This time, the ride felt different – less fear, more anticipation. Bligard, who happened to be on call that day, delivered two healthy boys – Nathan and Wade – marking a happy end to a pregnancy once filled with uncertainty. ◆







# Defying late-stage cancer

BY JULIA EVANGELOU STRAIT

How a rescued liver rewrote one patient's prognosis.



Five years ago, doctors told Meghan Moore to get her affairs in order. She was 42, with stage IV colorectal cancer and an estimated 18 months to live. Today, her scans are clear, her bloodwork is normal and this spring she watched her younger son cross the stage to receive his high school diploma – a milestone she once feared she wouldn't live to see.

Her survival marks a shift underway at WashU Medicine, where physician-scientists are demonstrating that a late-stage diagnosis doesn't have to be a death sentence. With unparalleled clinical expertise and a dedication to pursuing bold research, they are redefining what's medically possible for some patients who, a decade ago, may have been offered little more than palliative care.

## The lifesaving treatment plan

Meghan and her husband, Mark, got married in 2021, just days after her diagnosis. Their closest friends stood with them that day knowing about the diagnosis, but they didn't have the whole story. "We didn't tell our friends the tumor staging before the wedding because we didn't want everyone crying the entire time," Meghan said. "My sons, who were 13 and 20 at the time, have been a major reason I was determined to do everything possible to fight this."

After her diagnosis from a local hospital, Meghan and Mark sought a second opinion at Siteman Cancer Center, based at Barnes-Jewish Hospital and WashU Medicine – the only National Cancer Institute (NCI)-designated comprehensive cancer center in Missouri and southern Illinois. That led them to WashU Medicine oncologist Kian-Huat Lim, MD, PhD, who proposed a personalized plan that went beyond the standard of care for Meghan's case.

"I recommended combining several chemotherapies to give Meghan a stronger regimen," Lim said. "This was a relatively new strategy at the time, but she was young and otherwise healthy, so we felt we could start with an aggressive plan. We have the science and multidisciplinary expertise to think outside the box while staying guided by data and experience."

After intense chemotherapy that shrank the tumors, Meghan underwent a complex surgery to remove the main colorectal tumor and as many liver metastases as possible. The surgeons also implanted a hepatic arterial infusion pump, a device that administers a specific form of chemotherapy directly to the liver. Such pumps are generally available only at large, specialized cancer centers, where multidisciplinary teams have the extensive experience needed to manage them safely.

After more than another year of combined treatment, Meghan's tumors were confined to her liver — but had stopped responding to chemotherapy and begun to grow. As her options narrowed, her team began discussing a liver transplant.

The WashU Medicine and Barnes-Jewish Transplant Center is among the few centers globally to perform liver transplants carefully selected for patients with liver cancer, bile duct cancer and stage IV colorectal cancer that has spread to the liver — pushing the envelope of what's possible in late-stage cancer care.

"We have taken care of cancer patients with a very short life expectancy and seen them return to a full life after liver transplantation," said William C. Chapman, MD, the Eugene M. Bricker Professor of Surgery, surgical director of the Transplant Center and chief of the Section of Transplant Surgery. "It can dramatically extend survival and restore quality of life in ways that haven't been possible until recently."

***Sixteen patients who would otherwise have stayed on the donor waiting list received a liver instead.***

***Meghan was one of them.***

## Five opinions in the room

At Siteman, every patient with a more complicated disease course or need is discussed at a multidisciplinary tumor board — a standing meeting where specialists weigh in on a coordinated treatment strategy. For colorectal cancer patients with liver involvement, that includes medical oncologists, radiation oncologists, surgical oncologists, GI specialists, liver specialists, interventional radiologists, imaging specialists and transplant surgeons. The consensus for Meghan was to move forward with a liver transplant.

"I tell patients that the tumor board is like having not only a second opinion but a third and a fourth and a fifth opinion, because everyone involved in their treatment has extensive expertise and is collectively deciding the best possible treatment strategy for their specific situation," said Maria B. Majella Doyle, MD, the Mid-America Transplant/Department of Surgery Distinguished Chair of Abdominal Transplantation who performed Meghan's transplant.

"We're a very aggressive program in liver transplantation for cancer," Doyle said. "I think that's part of why we see so many patients travel great distances to have those procedures here."

Meghan's case reflects a broader — and still not fully understood — shift toward more people in their 30s and 40s being diagnosed with colorectal cancer at advanced stages. Liver transplantation has emerged as a transformative option for patients whose cancer, however aggressive, has confined itself to the liver. While the option has expanded to more patients, it remains a relatively uncommon solution to treating late-stage colorectal cancer.



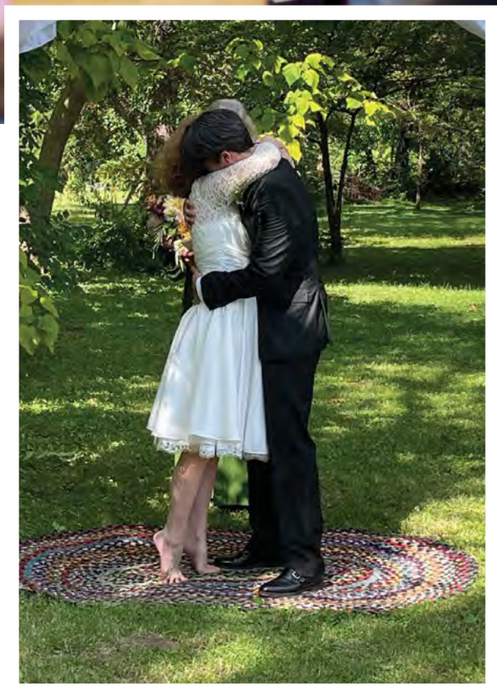
## From rejected to lifesaving

After Meghan's tumors began growing, her team added her to the national liver transplant waiting list. But because she wasn't in immediate liver failure, patients with more urgent needs were prioritized ahead of her.

At the same time, WashU Medicine investigators opened a clinical trial testing a device that keeps donated livers at body temperature — rather than on ice, the standard for decades — in conditions that mimic the body's own physiology, delivering oxygen and nutrients to help sustain the liver until transplant. The trial assessed whether livers other centers had declined, often for treatable issues such as fatty liver disease, could be reconditioned and made viable again.

The early results are promising. The clinical trial data are pending publication, but interim data published in 2023 by Chapman and colleagues found that 16 of 22 livers initially declined for transplant were ultimately suitable — a 73% rescue rate. Sixteen patients who would otherwise have stayed on the donor waiting list, or fallen off it, received a liver instead. Meghan was one of them. The completed trial results are slated to be presented at the Western Surgical Association's annual meeting in November.

"I feel so lucky that this trial happened to be available at this exact time and place," she said. "I said that even if it didn't work for me, I would at least contribute data that could help people in the future."



Meghan still thinks about the wedding, when she stood in front of her closest friends, carrying a heavy diagnosis and determined not to let it steal the day. Five years later, she got to stand in a different crowd, watching her younger son cross a stage in a cap and gown, and this time there was nothing to hide. The 18 months she was originally given have stretched into a life again — one with hope, gratitude and cherished time doing the things she loves. ◆

# The answers found *within us*

STORY CONTRIBUTIONS BY SHAWN BALLARD,
JULIA EVANGELOU STRAIT, MARK REYNOLDS AND MAGGIE TOIGO

ILLUSTRATIONS BY ALASKA ADAMS

Cancer. Obesity. Heart disease. Alzheimer's. Parkinson's. Cerebral palsy. Depression. Some of medicine's most devastating conditions still have more questions than answers. Armed with innovative resources and bold ambition, WashU Medicine researchers are on a mission to change that.





## Activating brown fat could make your metabolism work smarter, not harder

**IT TURNS OUT NOT ALL FAT IS CREATED EQUAL** – a discovery in how brown fat, or "good" fat, burns calories could open new doors for supporting weight loss and treating metabolic diseases such as obesity, diabetes and insulin resistance.

"The pathway we've identified could provide opportunities to target the energy expenditure side of the weight loss equation, potentially making it easier for the body to burn more energy by helping brown fat produce more heat," said Irfan Lodhi, PhD, a professor of medicine in the Division of Endocrinology, Metabolism and Lipid Research, who led the study published in Nature. "Boosting this kind of metabolic process could support weight loss or weight control in a way that is perhaps easier to maintain over time than traditional dieting and exercise."

Scientists have long known that mitochondria – the cell's main energy producers – in brown fat produce heat. Studying mice, Lodhi and his team uncovered a backup system in which cellular compartments called peroxisomes generate heat involving the protein ACOX2. When exposed to cold, peroxisomes in brown fat increase in number, an effect even more dramatic when the main mitochondrial heat protein is missing, offering strong evidence that peroxisomes act as a compensatory heater.

Lodhi and his colleagues discovered that mice with high levels of ACOX2 in their brown fat showed better weight control and blood sugar regulation, even on unhealthy diets.

The fatty acids processed by ACOX2 occur naturally and are found in dairy and certain gut bacteria, suggesting that dietary interventions such as specific foods or probiotics could boost this heat production pathway, helping people lose weight and improve their metabolic health.

Lodhi and his colleagues are now investigating possible drug compounds that could activate the ACOX2 pathway, moving their discovery closer to clinical applications – and closer to transforming this "good" fat into a powerful tool for fighting metabolic diseases.

# Rewiring hope: A new era of precision treatment for Parkinson's disease

**FOR THE MORE THAN 10 MILLION PEOPLE WORLDWIDE AFFECTED BY PARKINSON'S DISEASE,** reminders of the devastating disorder are everywhere: hand tremors make getting dressed a daily challenge, muscle stiffness leads to chronic pain with every step, restless sleep causes intense exhaustion, and memory and mood changes make previously enjoyable activities undesirable.

For too long, patients and their families have had only one option: mitigate the symptoms. But the disease ravages on, eventually taking over body, mind and spirit. Until now.

Scientists from WashU Medicine and Changping Laboratory in China have identified a brain network that may be the "command center" for Parkinson's disease — paving the way for personalized, non-invasive treatment that could slow or even reverse the progression of the disease.

For decades, doctors focused on the basal ganglia, the part of the brain that controls muscle movements, as the source of Parkinson's. But this didn't explain why patients also deal with "non-motor" issues, like sleep, memory and digestive problems.

Nico U. Dosenbach, MD, PhD, the David M. & Tracy S. Holtzman Professor of Neurology; Hesheng Liu, PhD, at Changping Laboratory and their respective teams identified the Somato-Cognitive Action Network (SCAN) as the core network responsible for Parkinson's. First described by Dosenbach in 2023, the SCAN links the parts of the brain responsible for thinking and planning with the parts that control movement. In people with Parkinson's, this network is "hyperconnected," disrupting not only movement but also cognitive and bodily functions.

In a clinical trial, 18 patients who received an experimental noninvasive neuromodulation therapy called transcranial magnetic stimulation (TMS) targeting the SCAN more than doubled symptom improvement compared to patients receiving TMS directed at surrounding brain areas.

"This work demonstrates that Parkinson's is a SCAN disorder," said Dosenbach. "Changing the activity within SCAN could slow or reverse the progression of the disease, not just treat the symptoms."








# A small implant is delivering big relief for severe depression

**WHAT IF RELIEF FROM SEVERE DEPRESSION DIDN'T COME FROM A NEW DRUG** — but from an electrical signal inside our bodies?

In the RECOVER study — a multicenter clinical trial led by WashU Medicine researchers — scientists found that stimulating the vagus nerve improved symptoms and quality of life in patients with advanced treatment-resistant depression. These patients had tried an average of 13 treatments without success and had lived with depression for nearly three decades.

"There is a dire need to find effective treatments for these patients, who often have no other options," said lead investigator Charles Conway, MD, a professor of psychiatry and director of the WashU Medicine Treatment Resistant Mood Disorders Center. "With this kind of chronic, disabling illness, even a partial response to treatment is life altering, and with vagus nerve stimulation we're seeing that benefit is lasting."

The vagus nerve is one of the body's main communication lines, carrying signals between the brain and key organs that help regulate mood, heart rate and other physical functions.

Unlike "shock therapy" which delivers brief, high-intensity stimulation to the brain, vagus nerve stimulation (VNS) works more like a pacemaker, sending ongoing signals through that nerve.

*"We're seeing people getting better and staying better."*

The implanted device sits under the skin in the chest and works quietly in the background. This steady approach is key, as the benefits to VNS build over time — nearly one-third of patients who had not responded after one year reported benefits by the end of the second.

"Seeing results for this complicated illness makes me optimistic about the future of this treatment," said Conway. "These results are highly atypical, as most studies of markedly treatment-resistant depression have very poor sustainability of benefit, certainly not at two years. We're seeing people getting better and staying better."

# Stopping plaque in its tracks — a new approach to heart disease

**HEART DISEASE REMAINS THE WORLD'S LEADING CAUSE OF DEATH** among adults, contributing to nearly 20 million deaths each year worldwide. And while treatments have long focused on cholesterol as the culprit, a study led by Kory J. Lavine, MD, PhD, may have identified a new target.

Lavine, who also directs the WashU Medicine Center for Cardiovascular Research, and a team of researchers found that eliminating modulated smooth muscle cells reduced plaque buildup in the arteries of mice — pointing to a new way of treating heart disease beyond a focus on cholesterol.

*"These harmful cells are located in areas of the plaque that are particularly vulnerable to rupture, which is the primary cause of heart attacks."*

The strategy uses a form of immunotherapy, a technique already transforming cancer care, to target those cells that contribute to inflammation inside plaques. By disrupting that cycle, researchers were able to reduce plaque size and instability.

"We found that these harmful cells are located in areas of the plaque that are particularly vulnerable to rupture, which is the primary cause of heart attacks," said Lavine.

If similar results can be achieved in people, this approach may open the door to new treatments for heart disease, including for patients who don't fully benefit from existing therapies.

For the millions of people at risk of heart attack or stroke, it could mean a more precise way to stop the deadliest plaques before they do the most harm.






# Big steps forward for cerebral palsy

**FOR MANY CHILDREN WITH CEREBRAL PALSY,** leg dystonia can make walking difficult and even painful. However, a quick test developed by physician-scientists in the Department of Neurology offers a clearer way to assess dystonia, with the potential to guide more precise care.

More than half of children with cerebral palsy experience these involuntary, often painful muscle contractions that lead to abnormal movement and posture. Yet it has long been difficult to diagnose — and even harder to define.

For decades, diagnosis has relied largely on an ultimately inconsistent benchmark: the physician's subjective assessment.

"An overarching goal of this work is about standardizing dystonia assessment by quantifying diagnoses that were previously based on doctors' gut feelings," said Bhooma Aravamuthan, MD, DPhil, an assistant professor of neurology. "These results can be immediately put into clinical practice to help guide treatment."

In a study led by Aravamuthan, children were recorded performing a simple seated task, allowing specialists to track how their legs moved toward the body's midline, a subtle but reliable marker of dystonia severity.

*"These results can be immediately put into clinical practice to help guide treatment."*

The team then turned to mice, stimulating specific brain cells involved in motor control to recreate the same movement pattern, offering clues to the underlying biology and a potential target for future treatments.

What they found was a link between the dystonia-like movement patterns and sustained activity in these brain cells.

This objective approach to evaluating dystonia could be used in clinics right away. Now, the test is already helping guide treatment decisions and allowing doctors to track changes in care with more consistency and confidence.

For families navigating cerebral palsy, this new approach to patient care offers something simple but powerful — actual answers for their child.

# Beating the biological clock of Alzheimer's

**ALZHEIMER'S DISEASE STARTS SILENTLY** — 20 years or more before memory loss and other symptoms ever appear. But what if you could estimate when those symptoms might begin? Thanks to a simple blood test and a mathematical model, researchers have laid the groundwork for doing so.

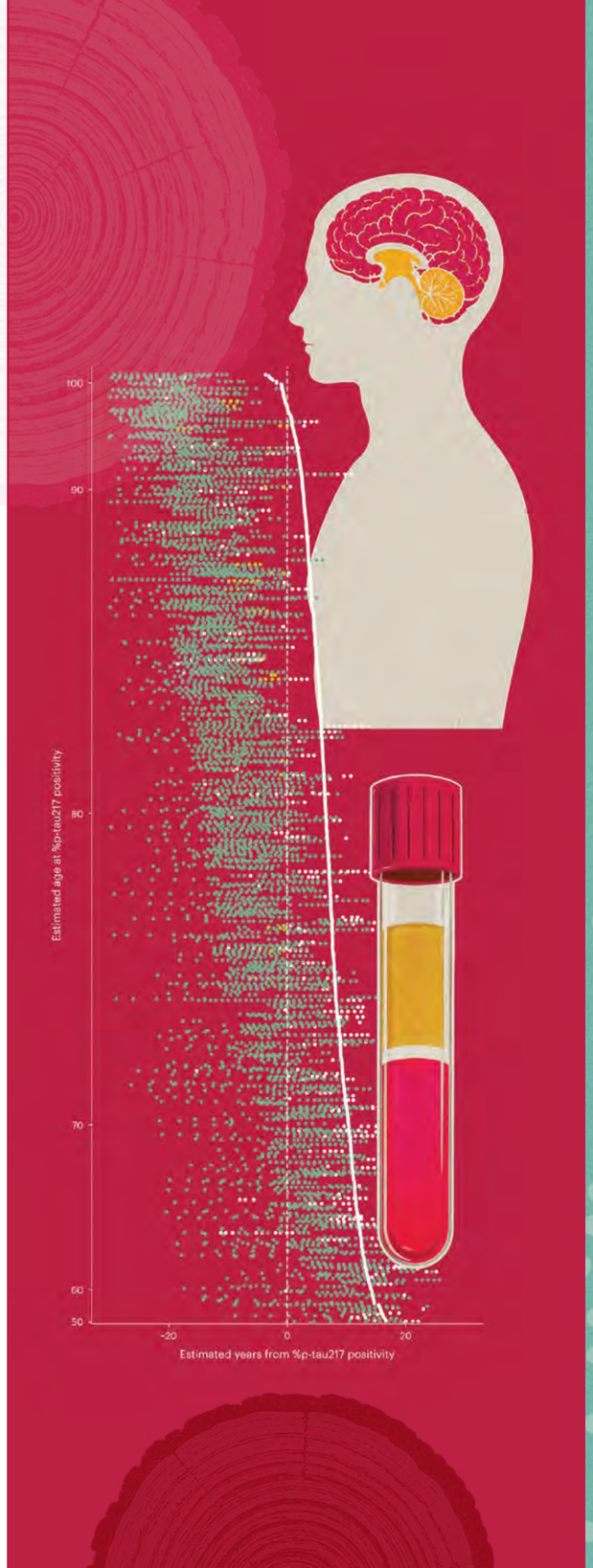
"Our work shows the feasibility of using blood tests, which are substantially cheaper and more accessible than brain imaging scans or spinal fluid tests, for predicting the onset of Alzheimer's symptoms," said senior author Suzanne E. Schindler, MD, PhD, an associate professor in the Department of Neurology. "In the near term, these models will accelerate our research and clinical trials. Eventually, the goal is to be able to tell individual patients when they are likely to develop symptoms, which will help them and their doctors to develop a plan to prevent or slow symptoms."

*Much like tree rings indicate age, Schindler and Petersen found that this protein buildup can be used as a "clock."*

Schindler and Kellen K. Petersen, PhD, a mathematician and instructor in neurology, leveraged prior work at WashU Medicine showing that amyloid and tau — the hallmark proteins of Alzheimer's — accumulate in the brain in a predictable, consistent pattern over decades. Much like tree rings indicate age, Schindler and Petersen found that this protein buildup can be used as a "clock."

By measuring blood levels of p-tau217, which reflect both amyloid and tau, scientists can determine a person's position on that clock and estimate their risk of developing Alzheimer's symptoms. For most people who developed symptoms, the clock also estimated the age that symptoms began within 3-4 years. While this model cannot yet be used on an individual basis, it can "make clinical trials more efficient by identifying individuals who are likely to develop symptoms within a certain period of time," Petersen said.

This discovery may transform Alzheimer's from a "wait and see" diagnosis into a timeline, opening the door for scientists to test preventive therapies before brain damage becomes irreversible — and ultimately offering a path to end this devastating disease for families around the world.






# A new vaccine fights one of cancer's deadliest tumors

**GLIOBLASTOMA IS ONE OF THE DEADLIEST BRAIN CANCERS.** It grows quickly, resists treatment and leaves patients and families facing a devastating truth: even the best available standard of care is rarely enough to stop it.

WashU Medicine physician-scientists refused to accept those odds. Their research led to the development of a personalized vaccine designed to help the immune system recognize and attack each patient's tumor.

A phase 1 trial involved patients with an unmethylated MGMT subtype of glioblastoma, an especially aggressive form of the cancer. Conducted at Siteman Cancer Center, based at Barnes-Jewish Hospital and WashU Medicine, the trial found that the vaccine caused no serious side effects and prolonged patients' overall survival compared with historical outcomes after surgery and chemo-radiotherapy.

The study was led by Tanner M. Johanns, MD, PhD, an assistant professor in the Division of Oncology, who treats patients at Siteman and is a research member there.

"This kind of vaccine is a first for glioblastoma," said Johanns.

In the trial, two-thirds of the patients had no progression six months after surgery, and two-thirds survived one year. Historically, only about 40% of glioblastoma patients reach either benchmark. One-third of participants were still alive after two years, including one patient who remains alive and recurrence-free nearly five years after diagnosis — an extraordinary milestone.

Because glioblastoma is especially difficult for the immune system to recognize and stop, the vaccine is designed around what makes each patient's tumor unique. Using an algorithm developed at WashU Medicine, researchers identified distinguishing proteins found on a patient's cancer cells, then created a DNA-based vaccine to help the immune system recognize those telltale proteins and attack the tumor.

The next step for researchers is to assess the vaccine's efficacy in a larger group of patients and expand treatment to all types of glioblastomas.

The work reflects what scientific research is built to do: move bold ideas from the lab toward the people who can't wait a second longer. ◆

# The gift of *time*

## A MESSAGE ABOUT SCIENCE, GRATITUDE *and* OPTIMISM

**FOUR YEARS AGO, WITHOUT WARNING, I WAS TOLD I WOULD PROBABLY BE DEAD WITHIN SIX MONTHS. THAT DIDN'T HAPPEN. AND I WANT TO TELL YOU WHY.**

As a physician, I understand my disease. As a patient, I have lived with it. I was diagnosed with advanced stage IV cancer. The prognosis was dire. Being told plainly what to expect helped me prepare for what lay ahead.

My diagnosis landed hard.

And yet – here I am. Four years later. Why am I still alive? It's no miracle. It's no mystery. I'm alive because of extraordinary scientific advances, exceptional clinical expertise, and a treatment plan precisely tailored to my cancer.

Clinicians and scientists at WashU Medicine, Barnes-Jewish Hospital, and Siteman Cancer Center gifted me increased quality and quantity of life – because of their expertise, their judgment, and their care.

I know this reprieve cannot last forever. But it has been glorious. It has allowed me to keep living my life – to keep loving, working, thinking, and appreciating the world around me.

For this gift, I am deeply grateful. And having had four years to process, I believe I will be ready for my death when it comes – as come it must.

So, what is my message to you?

Science didn't just extend my life – it gave me quality time that mattered. So, let's support scientific institutions and invest in knowledge. What we choose to prioritize now will shape the world our children inherit. I believe that life can, and should, continue to improve in our lifetimes, and for generations to come.

To the scientists and clinicians whose expertise, dedication, and kindness have extended my life – you have my heartfelt gratitude. Let us all invest in knowledge, live in the moment, and recognize that we are not just Homo sapiens – we are also Homo felix: fortunate humans, alive in a time of wonders.

As my life draws to its close, I see more clearly than ever how much beauty and wonder there is in this world.

I am grateful to have seen it.

I hope you will too.

Michael Avidan

Dr. Michael S. Avidan

*MBBCh, FCASA*
*Dr. Seymour and Rose T. Brown Professor of Anesthesiology*
*WashU Medicine*



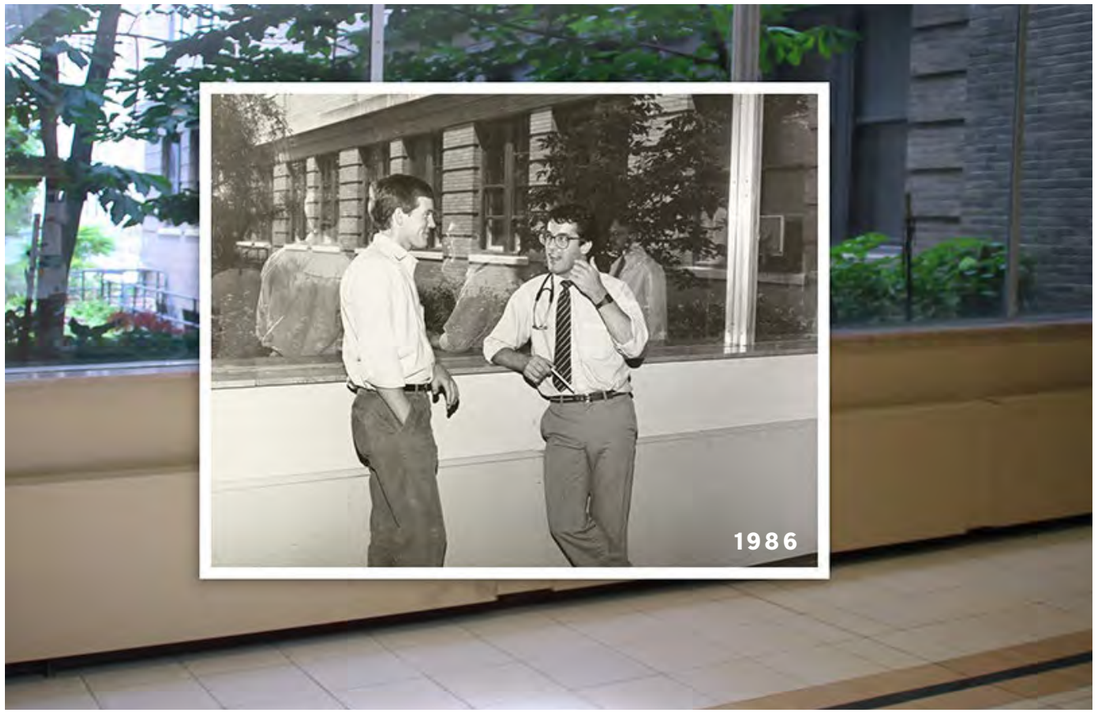
**WITH YOU,** we can increase the quality and quantity of life for all by investing in knowledge and supporting scientific institutions. Make your gift today at **withyou.washu.edu/giftoftime** or by scanning the code.

**With You.**
The WashU Campaign

# Then. Now. *Forever.*

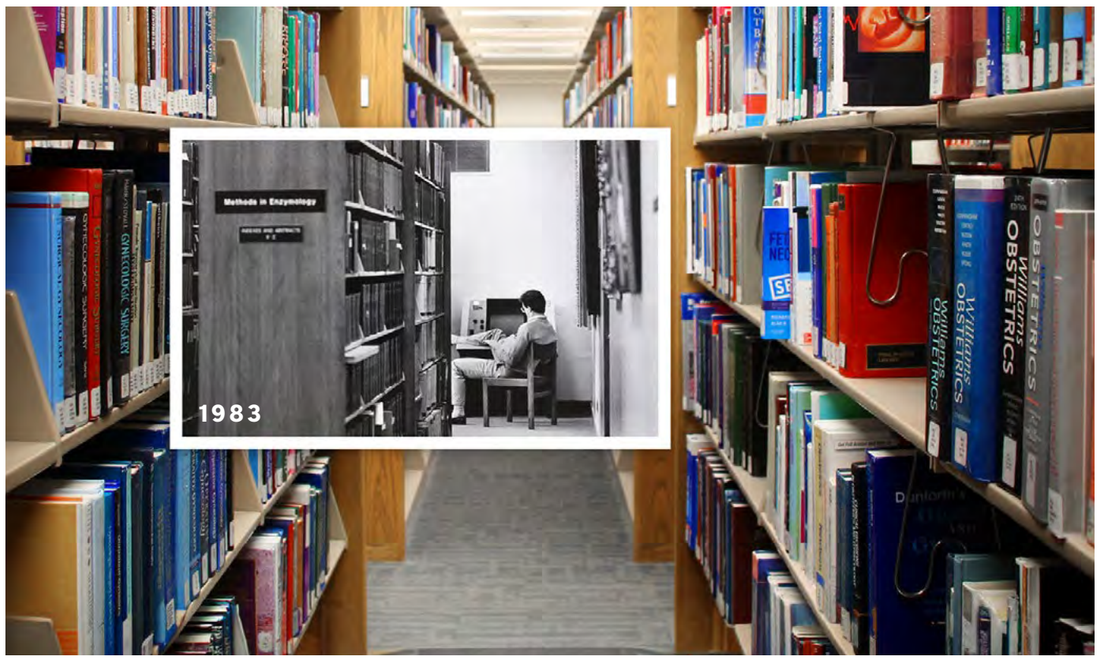
**FOR 135 YEARS** WashU Medicine has advanced research, education and care in pursuit of helping people live longer, healthier, more fulfilling lives. That unified sense of mission and purpose is just as prevalent today as it was in 1891, and it is what will help us continue to move medicine forward for generations to come.




1986


NGTON UNIVERSITY NOBEL LAUREATES
1983


C. 1945


Methods in Enzymology
GYNECOLOGIC SURGERY
OBSTETRICS
1983


1991




1916


1939


1973

# The moments that *transformed* medicine

Questions that demanded better answers.
Patients who needed better options.
Ideas that changed everything.

**WASHU MEDICINE HAS A RICH HISTORY** of turning defining moments into lasting impact. Some began in the lab. Others took shape at the bedside or in the classroom. Together, they reflect a shared drive to push medicine forward — not for the sake of being first, but because each discovery can shape care for generations.

These are just a few of the milestones that trace the turning points, breakthroughs and historic firsts that define our legacy.



# Moving medicine *forward*

Clinical observations spark new investigations, cross-disciplinary teams share transformative insights and bold thinking thrives in every corner of our institution to keep bringing answers to the unknown.

**Because before a diagnosis changes everything — we're already changing what's possible.**

WashU Medicine





## 1920s



### Helped lead first U.S. treatment for childhood diabetes

By preparing insulin treatment for a child with diabetes, our researchers led the way in making a once-fatal diagnosis manageable. (1922)

## 1950s



### Linked smoking to lung cancer

Smoking was rampant in midcentury America — even in hospitals. Our landmark studies shifted perceptions and sparked a global public health movement. (1950)

## 1970s

### Revealed aspirin's ability to prevent heart attacks

Physicians first showed how low-dose aspirin keeps clots at bay, helping prevent heart attacks — a discovery credited with saving thousands of lives each year. (1973)



### Invented the PET scanner

This groundbreaking invention imaged the brain and showed organs at work, opening a scientific window into our bodies. (1975)

## 1980s

### Pioneered a new foundation for physical therapy

Faculty conceived the "movement system"— a framework adopted by the American Physical Therapy Association as the basis for all research, education and patient care initiatives.

### Created the framework that defines modern occupational therapy

The Person-Environment-Occupation-Performance model originated here, giving occupational therapists a client-centered way to understand how people, their environments and daily activities shape health and well-being.

### Performed first transplant using donor nerve

Surgeons restored movement to a child with donor nerve tissue from a cadaver, opening a new era for patients with devastating nerve injuries and reshaping peripheral nerve surgery. (1988)

## 1990s



### Advanced the Human Genome Project

Our scientists made pivotal contributions to the first "human instruction manual," paving the way for a bold new era of precision medicine. (1990)

## 2000s

### Reshaped nutrition with landmark microbiome science

Medical teams pioneered microbiome-informed nutrition to improve growth and recovery for malnourished children. (2004)

### Sequenced the first whole cancer genome

This landmark study showed that a tumor's full DNA could reveal the mutations driving cancer — and point us toward more precise ways to diagnose and treat it. (2008)

## 2010s

### Made inoperable brain tumors operable

Using the first FDA-approved MRI-guided laser interstitial thermal therapy system (LITT), neurosurgeons targeted and treated brain tumors previously deemed inoperable. (2010)

### Redefined mobility for kids with cerebral palsy

Over the course of more than 5,300 surgeries, our surgeons forever refined selective dorsal rhizotomy for children with cerebral palsy, helping thousands of kids walk, play and live more freely. (May 2017)

### Reimagined radiation to heal the heart

Researchers used a single, targeted dose of radiation — long reserved for cancer — to stop ventricular tachycardia. This groundbreaking approach to a deadly heart rhythm defied convention, proved effective and is now moving through clinical trials as a potential new lifesaving treatment. (December 2017)



### Invented blood test to diagnose Alzheimer's

A world-changing leap forward in early detection that allowed earlier intervention and an opportunity to tailor targeted treatments to individual patients. (2019)

## 2020s

### Performed the first fully robotic liver transplant in the U.S.

Surgeons performed one of medicine's most complex operations with a minimally invasive robotic approach, reducing pain and helping the patient return to normal daily activities within weeks. (2023)



### Developed novel breast cancer vaccine & clinical trials

The first-ever fully personalized vaccine — known as a neoantigen DNA vaccine — targeted hard-to-treat triple-negative breast cancer and showed promise for patients. (2024)

### Advanced CAR T-cell immunotherapy to fight blood cancer

Scientists engineered a new CAR T-cell therapy that uses healthy donor cells to fight aggressive blood cancers. In early studies, most patients experienced full remission, offering hope for those who have little time and even fewer options. (May 2025)

### Launched breakthrough therapy for preschool depression

Researchers first introduced a parent-child therapy approach to help young children feel better and stay better, changing the course of their mental health for years to come. (June 2025)

# Moving medicine *forward*

# A legacy of leadership

**BY JEANNETTE COOPERMAN**

Twenty deans. One enduring mission.
And the man ready to carry it into the future.

**EVERY DEAN OF THE MEDICAL SCHOOL** has had to master the same balancing act — moving back and forth between microscopic detail and sweeping vision; traveling from lab to bedside to podium; respecting tradition while implementing transformation; creating collaborative partnerships internally and meaningful impact in the community, the nation and the world.

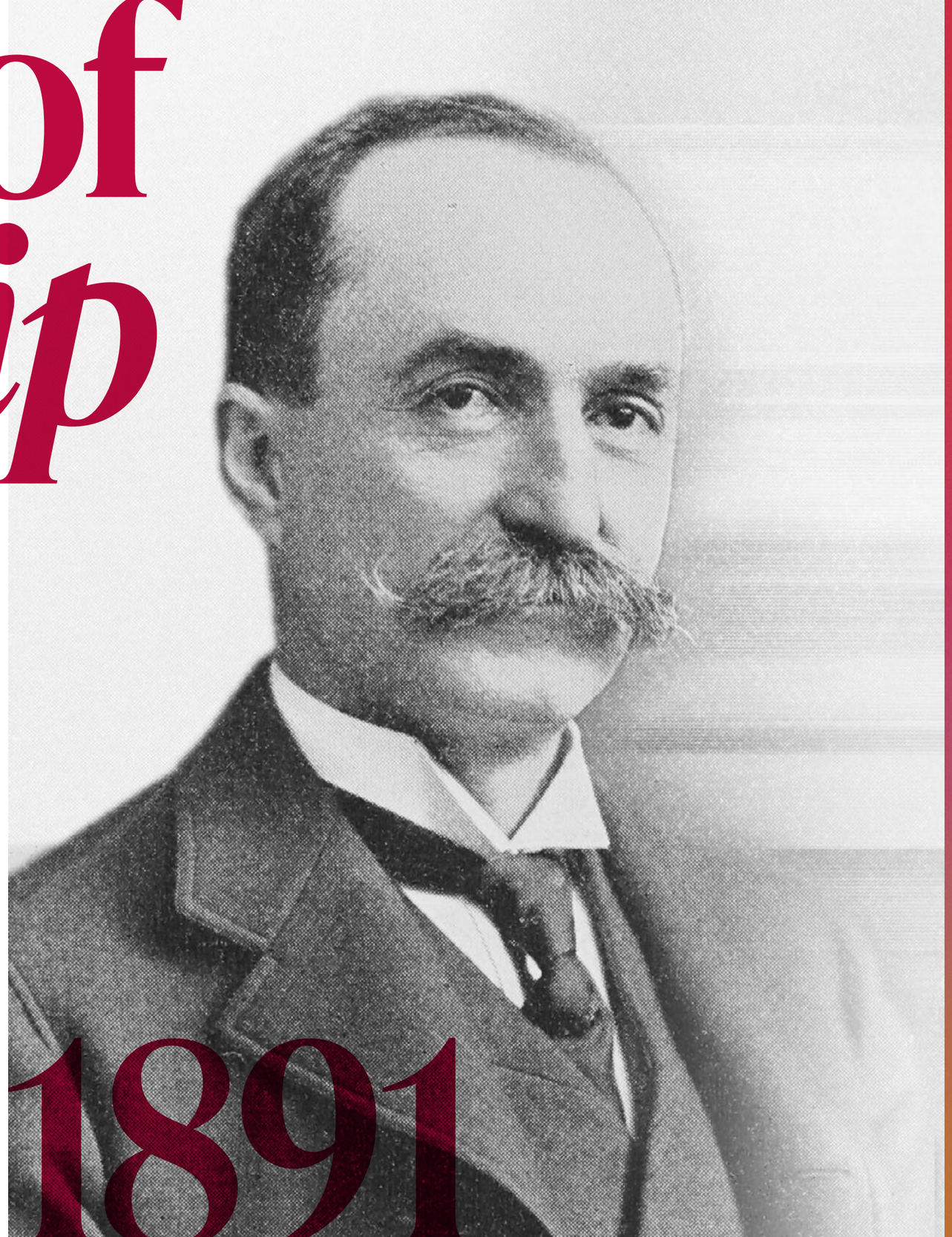
As Bruce D. Levy, MD, begins his tenure as Executive Vice Chancellor for Medical Affairs and the George and Carol Bauer Dean of WashU Medicine, the job could be overwhelming — if he didn't have 20 predecessors lighting the way.

In 1891, Henry Hodgen Mudd set the tone. His surgical work was said to be more extensive than any in the West. Realizing that the nation's young medical schools needed more resources and stability, Mudd championed the idea that St. Louis Medical College and Missouri Medical College become part of Washington University as the Medical Department.

In 1910, philanthropist Robert Brookings set out to turn the Medical Department into a world-class modern medical school. The core full-time faculty he hired included three future deans. The first was George Dock. With other med schools still relying on lectures and apprenticeships, Dock emphasized laboratory science, pathology and research-based medicine. He even persuaded WashU Medicine physicians to trade their black frock coats for the white canvas coats of lab scientists.

His successor, pathologist Eugene Opie, continued Dock's emphasis on rigorous science, making WashU Medicine comparable to the leading schools in the world. He said a nation's strength depended on its recognition "of the value of science and its application to the routine of living." For clinical care, he integrated the medical school with Barnes Hospital, and he paid close attention to the atmosphere in both labs and wards. When World War I broke out, Opie served as a medical corps officer in the hospital unit formed at WashU Medicine.

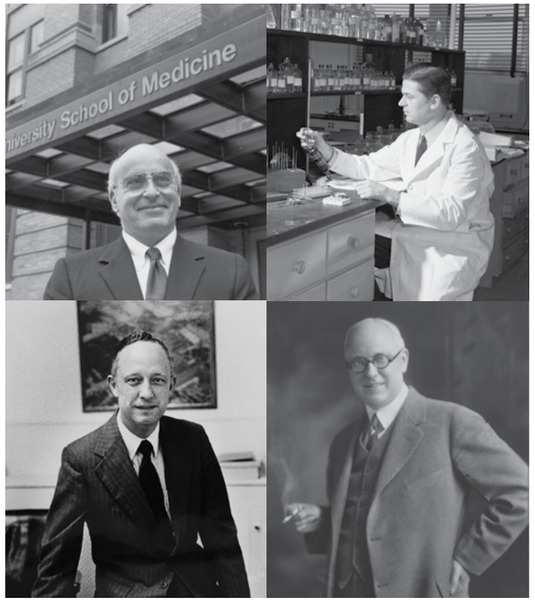
Next came Philip Shaffer, the third and youngest of Brookings' recruits to serve as dean. He, in turn, had a knack for recruiting



talented young faculty members, and during his tenure, the first women students were admitted. One of the nation's top biological chemists, Shaffer was equally interested in clinical care, saying at a 1941 convocation: "Without health and vigor there cannot be that measure of individual satisfaction and national efficiency upon which survival will depend." Like Opie, he served during World War I. Soon after, he stepped down as dean, then reassumed the deanship in 1937 — and found himself guiding the school through another world war. Along with a crew of brilliant young department heads, he added Carl and Gerty Cori to the faculty. In 1947, they would win the Nobel Prize in Physiology or Medicine.

> ***"Without health and vigor there cannot be that measure of individual satisfaction and national efficiency upon which survival will depend."***

It wasn't until 1964 when the medical school hired its first full-time dean — Ken King. Under his leadership, the campus experienced a period of significant growth with the building of the McDonnell Medical Sciences Building, Clinical Sciences Research Building and Bernard Becker Medical Library. He also led personnel searches that reshaped the executive faculty. By now, Black physicians had joined the attending staff, and the school was admitting Black students. But King pushed hard for more. William H. Danforth, MD, vice chancellor for medical affairs and president of the WashU Medical Center, described King's tenure as "a golden age" — a time of unprecedented growth, stability and harmony.




The next dean, William Peck, continued to push the institution forward. With his leadership, the faculty grew by nearly 50 percent and WashU Medicine increased federal research funding and made breakthroughs in genetics, neurodegenerative diseases and basic sciences. Peck also oversaw the creation of the Center for Advanced Medicine, making outpatient surgeries and treatments far more available, as well as the Alvin J. Siteman Cancer Center, soon one of the nation's leading National Cancer Institute-designated comprehensive cancer centers. He started the faculty practice plan that is now WashU Medicine Physicians, and he managed logistics as Barnes Hospital and Jewish Hospital merged, and five hospitals joined together in what is now BJC HealthCare.

In 2003, Larry Shapiro, an internationally renowned research geneticist and pediatrician, accepted the deanship. Over the next 13 years, he oversaw the expansion of the McDonnell Genome Institute and helped establish the BioMed 21 initiative, pulling disciplines together to speed the translation of lab research into clinical treatments. Along with WashU's pivotal role in the Cortex Innovation District, BioMed 21 bolstered St. Louis' standing as a biotech hub. Soon the WashU Institute of Clinical and Translational Sciences was established, formalizing and expanding the initiative. Eager to put health and wellness within reach of all St. Louisans, Shapiro also advocated for a new Institute for Public Health. Chancellor Mark Wrighton dubbed him "St. Louis' physician-in-chief."

The most recent dean, David Perlmutter, strengthened WashU Medicine's national leadership in neuroscience, cancer, precision medicine and translational research. He negotiated corporate partnerships to speed drug development. And with his leadership, the med school curriculum was transformed, and scholarship support was expanded thanks to his allocation of $100 million for MD student scholarships and curriculum renewal.

With Perlmutter's guidance, WashU Medicine rose to No. 2 among U.S. medical schools in research funding from the National Institutes of Health (NIH) and clinical care stretched outward, making access easier even in underserved communities. The Jeffrey T. Fort Neuroscience Research Building — one of the largest facilities in the world devoted exclusively to neuroscience research — rose tall, as did a six-story addition to the Steven & Susan Lipstein BJC Institute of Health, Barnes-Jewish Hospital's Plaza West Tower for heart and vascular care and the building of the state-of-the-art outpatient Gary C. Werths Building at Siteman Cancer Center. Plus, a new 45-year partnership was forged with BJC HealthCare. He also focused on expanding faculty leadership, appointing more women and people of color as department heads and endowed professors.


**1891–1899**
Henry Hodgen Mudd


**1899–1900**
Gustav Baumgarten


**1900–1901**
Winfield Scott Chaplin
*(acting)*


**1901–1902**
John B. Shapleigh


**1902–1908**
Robert Luedeking


**1908–1910**
William H. Warren


**1910–1912**
George Dock


**1912–1915**
Eugene Opie


**1915–1919**
Philip A. Shaffer


**1919–1920**
G. Canby Robinson


**1920–1923**
Nathaniel Allison


**1923–1936**
W. McKim Marriott


**1937–1946**
Philip A. Shaffer
*(2nd tour)*


**1946–1954**
Robert A. Moore


**1954–1955**
Carl V. Moore


**1955–1958**
Oliver H. Lowry


**1958–1964**
Edward W. Dempsey

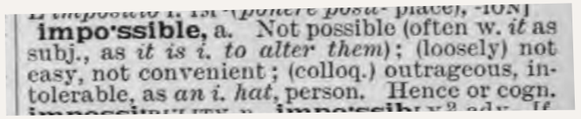

**1964–1989**
M. Kenton King


**1989–2003**
William A. Peck


**2003–2016**
Larry J. Shapiro


**2016–2026**
David H. Perlmutter


**2026–PRESENT**
Bruce D. Levy

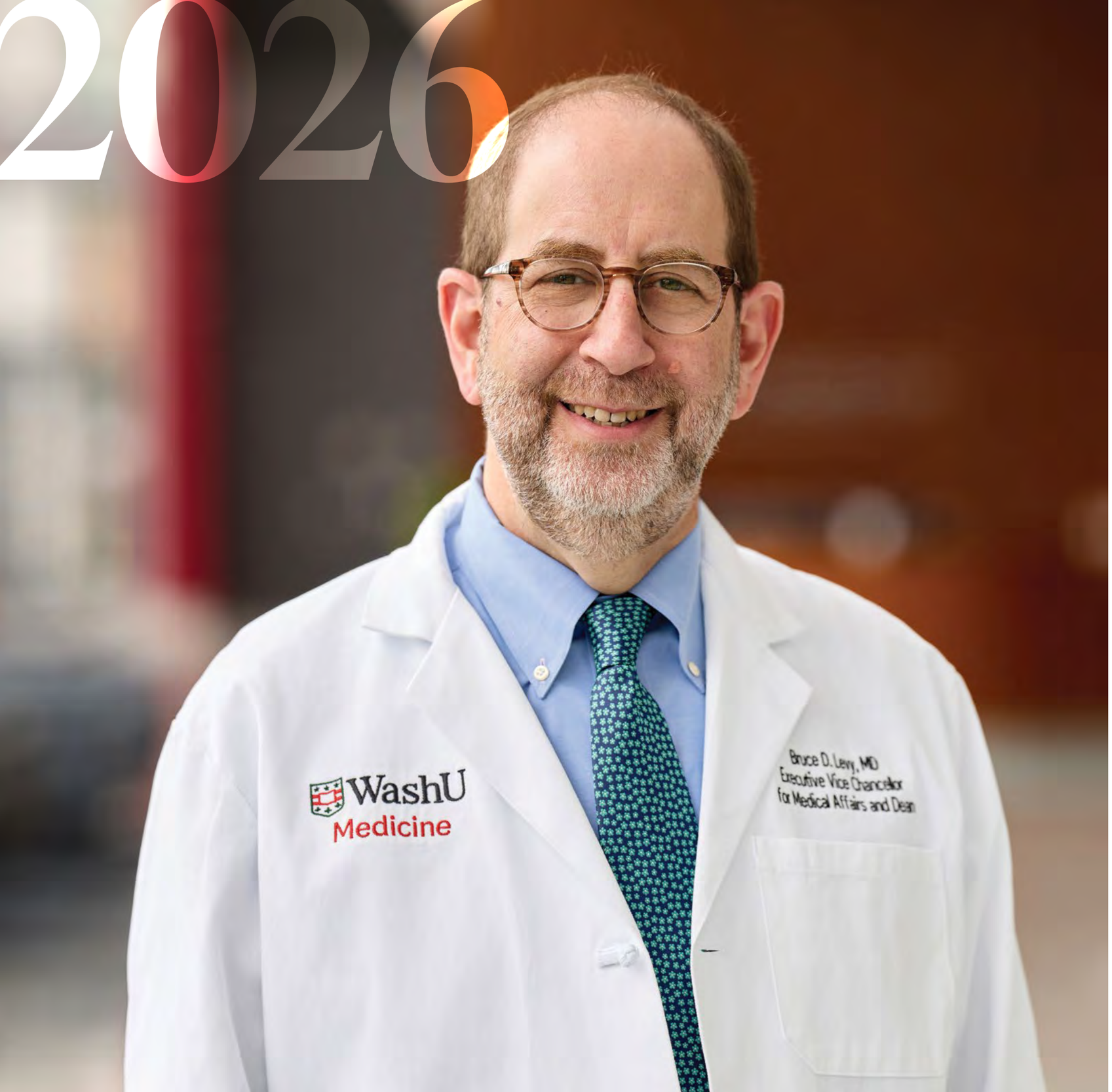





## 1965–1971
## William H. Danforth

Before becoming chancellor of WashU in 1971, William H. Danforth, MD, was one of the many trainees transformed by working in the Cori Lab. "That's where I learned about science," he said. In 1965, at the age of 39, he became vice chancellor for medical affairs and president of the WashU Medical Center — a position created to further unify the med school and Barnes Hospital. It was a lesson early in life that had shaped his leadership style: when he was 12, his grandfather had told him to cut — literally, with scissors — the word "impossible" out of the dictionary. Danforth worked closely with Dean King to help weather the radical 1960s and was instrumental in the Medical Center's expansion and redevelopment efforts.






# *Looking forward to a promising future*

Perlmutter identified a "generative restlessness" at WashU Medicine, a relentless push for excellence.

Levy, who became the 21st dean on July 1, 2026, first sensed that culture of excellence as a boy. Both of his parents had graduated from WashU. His mother went on to work as an electron microscopist at the med school, and his father as a hematologist and oncologist at what was then Jewish Hospital. As a teenager, Levy worked in WashU cell biology and pulmonology labs. He went on to attain board certification in internal medicine, critical care medicine and pulmonary disease. His research uncovered the body's own healing mechanism in resolving lung inflammation. He has ten patents and a novel therapeutic agent in development.

Levy now leads one of the nation's premier academic medical institutions at a critically important time. But many of his predecessors could have said the same. Welcoming Levy, exiting board chair Andy Bursky explained that he was chosen for "scientific depth, outstanding leadership, sharp instincts and vision, and the heart to understand and explain what makes WashU special." Only a few months into his tenure, Levy can already see what sets WashU Medicine apart, and how its incredible leadership, faculty and staff can deepen its impact in the years to come. It's fair to say that the medical campus is looking back at more than a century of vision, wisdom, experimentation and experience — and forward to a promising future. ◆

# Match Day

**134**
STUDENTS

**61**
HOSPITALS



**26**
STATES

**31.6%**
MATCHES STAYING IN MISSOURI

## Top Hospital

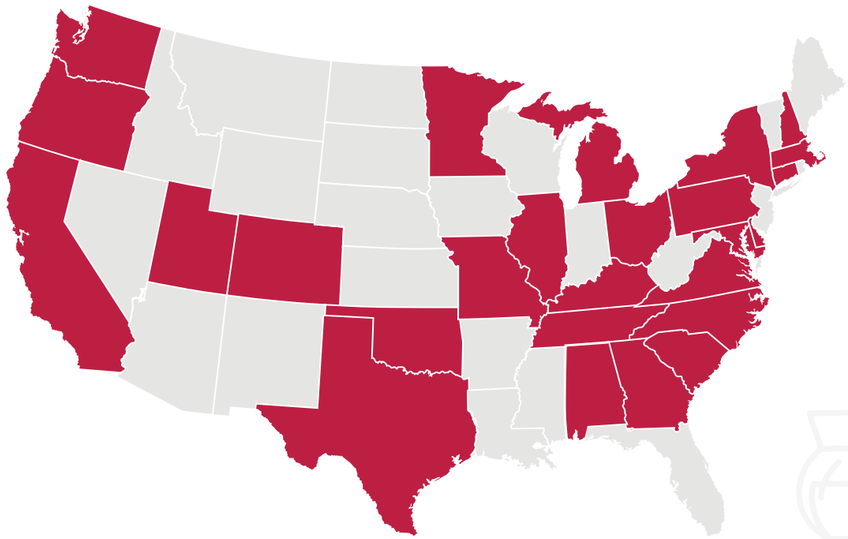
BARNES-JEWISH HOSPITAL
ST. LOUIS, MO • 36 MATCHES

**↑ 98.5%**
WASHU MEDICINE MATCH RATE

**93.5%**
NATIONAL AVERAGE

## Top States

MISSOURI
CALIFORNIA
NEW YORK
ILLINOIS
MASSACHUSETTS
NORTH CAROLINA
TENNESSEE



## Top Cities

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NEW YORK CITY • 8
BOSTON, MA • 7
CHICAGO, IL • 7
STANFORD, CA • 6










## ALABAMA

**University of Alabama at Birmingham Hospital**
GENERAL SURGERY
Joseph Litrel

## CALIFORNIA

**Harbor–UCLA Medical Center**
INTERNAL MEDICINE
Michelle LaJoie
**Olive View–UCLA Medical Center**
PSYCHIATRY
Savannah Seupaul
**Stanford Health Care**
PATHOLOGY
Jesús Bazán Villicaña
PSYCHIATRY/RESEARCH
Yan-Yang Feng
EMERGENCY MEDICINE
Paula Germino-Watnick
INTERNAL MEDICINE
Kimberly Johansson
James Shepherdson
**Stanford University School of Medicine**
UROLOGY
Nicole Hamagami-Samson
**UC San Diego Medical Center**
INTERNAL MEDICINE
Eli Aminpour
**UC San Francisco**
RADIATION ONCOLOGY
Noah Earland
NEUROLOGY
Graham Hogg
INTERNAL MEDICINE
Leah Tolby
**UCLA Medical Center**
RADIOLOGY-DIAGNOSTIC
Liam Cunningham
Elisa Kodama
**Mission Community Hospital**
TRANSITIONAL
Noah Earland
**UCSF Benioff Children's Hospital**
PEDIATRICS
Alice Jiang
**University of California, Irvine**
OPHTHALMOLOGY
Blake Katsev

## COLORADO

**University of Colorado School of Medicine**
FAMILY MED/UNIV HOSP
Madeleine Busby

## CONNECTICUT

**Yale New Haven Hospital**
INTERNAL MEDICINE
Priscilla Cruz
Brian Dineen

## DELAWARE

**Thomas Jefferson University/ Nemours Children's Health**
PEDIATRICS
Ariella Coler-Reilly
**ChristianaCare**
INTERNAL MEDICINE
John Fitzpatrick

## GEORGIA

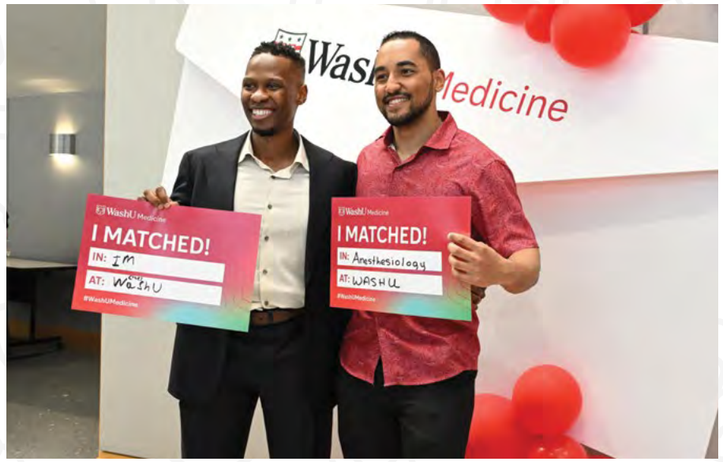
**Gateway Behavioral Health Community Service Board**
PSYCHIATRY
Maya Bussey
**Emory University School of Medicine**
MEDICINE–PRIMARY
Margaret Johnson
NEUROLOGICAL SURGERY
Zelun Wang

## ILLINOIS

**Loyola University Medical Center**
ANESTHESIOLOGY
Matthew de la Paz
**Northwestern McGaw/Lurie Children's**
CHILD NEUROLOGY
Michael Fitzpatrick
**Northwestern McGaw/NMH/VA**
INTERNAL MEDICINE
Caitlin Dingwall
EMERGENCY MEDICINE
John Han
**University of Illinois COM**
PSYCHIATRY
Melissa Vazquez
**UChicago Medicine**
EMERGENCY MEDICINE
Carolyn Carper
GENERAL SURGERY
Braxton Goodnight
CHILD NEUROLOGY
Sarah Ishamuddin

## KENTUCKY

**University of Louisville**
OPHTHALMOLOGY
Lilly Gonzalez
**University of Louisville School of Medicine**
ORTHOPAEDIC SURGERY
Ameer Haider
**University of Kentucky**
OPHTHALMOLOGY
Adam Snowden




## MARYLAND

**Johns Hopkins Hospital**
INTERNAL MEDICINE
Joseph Bell
PEDIATRICS
Amanda Maytin-Hevia

## MASSACHUSETTS

**Beth Israel Deaconess Medical Center**
PSYCHIATRY
Mackenzie Cappelle
PATHOLOGY
Ariel Hernandez-Leyva
**Boston Children's Hospital**
PEDIATRICS/CHILDREN'S HOSP
Elizabeth Forsen
PEDIATRICS/CHILDREN'S HOSP
Akshay Mehta
**Mass General Brigham**
PATHOLOGY-AP
Erin Wang
RADIATION ONCOLOGY
Stephanie Zhao
**Mass General Brigham/ Massachusetts General Hospital**
GENERAL SURGERY
Caroline Jones

## MICHIGAN

**University of Michigan Hospital**
ANESTHESIOLOGY
Nnediri Ugochukwu

## MINNESOTA

**Mayo Clinic School of Graduate Medical Education**
INTERNAL MEDICINE
Miriam Ndukwe

## MISSOURI

**Barnes-Jewish Hospital**
ANESTHESIOLOGY/4 YR
Brock Brummett
Spencer McKinley
ANESTHESIOLOGY/ASAP 5 YR
Joseph Krambs
DERMATOLOGY
Amy Liao
Quinn Payton
EMERGENCY MEDICINE
Robert Scheidt
Arielle Soldatenko
Olivia Suozzo
GENERAL SURGERY
Rachel Frey
Sabrina Madrigal
Cerise Siamof
INTERNAL MEDICINE
Nadia Ahmedin
Santiago Blanco Torres
Mihnea Marghitu
Mayande Mlungwana
Dante Nicotera
INTERNAL MEDICINE/PTSP
Lucas Adams
Daniel Bae
Gowri Kalugotla
NEUROLOGY
Kelly Schaschl
OBSTETRICS-GYNECOLOGY
Andrea O'Riordan
Morgan Timm
ORTHOPAEDIC SURGERY
Deniz Ince
Amir Kucharski
Gabrielle Marushack
PSYCHIATRY
Lucas Cruz
Aaron Knuteson
RADIOLOGY-DIAGNOSTIC
Trelford (Owen) Douglas
Joseph Gutbrod
Megan Michie
Jorge Saucedo
**SSM Health/Saint Louis University School of Medicine**
GENERAL SURGERY-PRELIMINARY
Aseeyah Islam
**St. Louis Children's Hospital**
CHILD NEUROLOGY
Shashank Anand
Ariel Brickler
PEDIATRICS/RESEARCH
Hannah Dorando
Cyrus Zhou
PEDIATRICS
Kristen Lau
**University of Missouri**
FAMILY MEDICINE
Hunter Patterson
**Washington University School of Medicine**
OPHTHALMOLOGY
Henok Getahun
Bradley McNeely
Jonathan Tong
UROLOGY
Xuan Qu






## NEW HAMPSHIRE

**Dartmouth Hitchcock Medical Center**
ANESTHESIOLOGY
Flora Laurent

## NEW YORK

**Icahn School of Medicine at Mount Sinai**
PSYCHIATRY
Judson Ellis
Ruth Ling
EMERGENCY MEDICINE
Mitchell O'Meara
ANESTHESIOLOGY
Yazan Rouphail

**NewYork-Presbyterian/ Weill Cornell Medical Center**
INTERNAL MEDICINE
Madison Ballman

**NYU Grossman School of Medicine**
ORTHOPAEDIC SURGERY
Christopher Herbosa
NEUROLOGICAL SURGERY
Ki Yun Park
INT MED/NYU-LANGONE
Ambrose Plante

**Stony Brook University Hospital**
OPHTHALMOLOGY
Annie Feng

## NORTH CAROLINA

**Atrium Health Carolinas Medical Center**
PHYS MEDICINE & REHAB
Michael Youssef

**Duke University Medical Center**
ANESTHESIOLOGY
Caroline Kwok
EMERGENCY MEDICINE
Adeola Ajirotutu
INTERNAL MEDICINE
Jocelyn Reckford
PSYCHIATRY
Hayley Quinones
RADIOLOGY-DIAGNOSTIC
Jackson Rigsbee

**Wake Forest Baptist Medical Center**
NEUROLOGICAL SURGERY
Braeden Benedict

## OHIO

**University of Cincinnati Medical Center**
NEUROLOGICAL SURGERY
Samuel Brehm
OTOLARYNGOLOGY
Amy Ensing

**Nationwide Children's Hospital**
PEDIATRICS
Mackenzie Cunningham

## OKLAHOMA

**The University of Oklahoma College of Medicine**
PEDIATRICS
Brooke Redwine



## OREGON

**Oregon Health & Science University**
GENERAL SURGERY
Ahmed Hanafy
GENERAL SURGERY-PRELIM
Fiona Pat
PSYCHIATRY
Lexis Hughes

## PENNSYLVANIA

**Hospital of the University of Pennsylvania**
ANESTHESIOLOGY
Christina Krucylak
PLASTIC SURGERY (INTEGRATED)
Joseph Ribaudo
EMERGENCY MEDICINE
Danielle Wilder

## SOUTH CAROLINA

**Prisma Health–University of South Carolina**
FAMILY MEDICINE
Ifeoma Ifediba

## TENNESSEE

**University of Tennessee Health Science Center**
INTERNAL MEDICINE
Abigail Fulkerson
ORTHOPAEDIC SURGERY
Daniel Fulkerson

**University of Tennessee College of Medicine**
PEDIATRICS
Jessica Bigley

**Vanderbilt University Medical Center**
OBSTETRICS-GYNECOLOGY
Katelin Boak
INTERNAL MEDICINE
Samuel Fallon
Olivia Min
INTERVENTIONAL RADIOLOGY (INTEG)
Micho Grace

## TEXAS

**U.S. Air Force/SAUSHEC**
NEUROLOGY
Akshay Balaji

**Baylor College of Medicine**
CHILD NEUROLOGY
Sarah Barnett

**University of Texas Southwestern Medical Center**
PSYCHIATRY
Luke Cantu
NEUROLOGICAL SURGERY
Miguel Hernandez-Rovira

**University of Texas Health Science Center at Houston**
GENERAL SURGERY-PRELIM
Esther Ochoa

## UTAH

**University of Utah Health**
PEDIATRICS
Adam Kwok

## VIRGINIA

**Carilion Clinic/Virginia Tech Carilion School of Medicine**
EMERGENCY MEDICINE
Nicholas Leonard

## WASHINGTON

**University of Washington Affiliated Hospitals**
PSYCHIATRY
Carolina Cross

**Swedish Medical Center**
FAMILY MEDICINE
Michael Vidal



# Alumni Achievement Awards

As part of Reunion Weekend, April 17–18, the WashU Medical Center Alumni Association recognized six Alumni Achievement Award recipients and one Emerging Leader recipient.



**Former Dean Perlmutter with the 2026 alumni awardees Michael Pfaller, Margaret Duncan and Mark Camel; WUMCAA President Rob Brophy; and 2026 awardees Randi Leavitt, Rodney Newberry, Charles Raison and S. Andy Josephson**

## Achievement Awardees

**Mark Camel, MD '81, HS '87,** retired neurosurgeon who co-founded Orthopedic and Neurosurgery Specialists in 1998, pioneering integrated specialty care that grew into Spire Orthopedic Partners. He was recognized for combining clinical innovation, research philanthropy and sustained generosity toward WashU Medicine's programs and scholarships.

**S. Andrew Josephson, MD '01,** chairs UCSF Neurology and pioneered neurohospitalist medicine, founding its first practice and fellowship in 2006. As JAMA Neurology editor-in-chief and a devoted WashU Medicine alumni leader, he's transformed inpatient neurologic care nationally. He was recognized for pioneering neurohospitalist medicine and his leadership within JAMA Neurology and WashU alumni service.

**Randi Leavitt, MD '78, PhD '78,** spent 30 years at Merck driving HIV research, leading development of indinavir and raltegravir and global trials for letermovir. She was recognized for transforming HIV treatment worldwide, plus sustained WashU philanthropy and alumni leadership through the MSTP Fellowship Fund and Eliot Society.

**Rodney Newberry, AB '87, MD '91, HS '99,** is the Dr. Nicholas V. Costrini Professor of Gastroenterology & Inflammatory Bowel Disease at WashU Medicine. He's a physician-scientist whose 27-year career advanced understanding of gut immunity, discovering how goblet cells deliver antigens to immune systems. He was recognized for pioneering IBD research, mentoring young scientists and national leadership including the Society for Mucosal Immunology presidency.

**Michael Pfaller, MD '76, HS '83,** spent 50 years advancing clinical microbiology and pioneered global antimicrobial surveillance programs shaping resistance research worldwide. He was recognized for authoring 700+ publications, editing the definitive Manual of Clinical Microbiology and mentoring generations of infectious disease scientists.

**Charles L. Raison, MD '91,** transformed psychiatry by revealing links between immune dysregulation and mood disorders, then pioneered psychedelic medicine and hyperthermia treatments for depression. He was recognized for groundbreaking research bridging biology and mental health, plus global recognition as one of the decade's most influential researchers.

## Emerging Leader Awardee

**Margaret Duncan, MD '21,** is a child/adolescent psychiatry fellow at Mass General Brigham McLean Hospital known for innovative mental health education and communication. She was recognized for pioneering narrative medicine initiatives, teaching excellence and reaching thousands through her podcast and writing on evidence-based mental wellness and eating disorder care.

## Reunion Weekend 2026



*Members of the MD Class of 1976 celebrate their 50th Reunion.*

## MD Reunion Save the Date

**Join us for next year's Reunion Weekend, honoring class years ending in 2 and 7.**

**April 9–10, 2027**

Learn more at **alumni.med.washu.edu/reunite** or scan the QR code.

# Class Notes

## 1960s

**THOMAS RICHARDSON, MD '63,** professor of psychiatry and association with WashU Medicine for over 66 years, will be retiring December 31, 2026. He received the Dean's Impact Award this year for his lifelong contributions to WashU Medicine and for his high-quality clinical work and teaching. He is looking forward to his 2028 reunion.

**WILLIAM BURTON, MHA '64,** retired from Memorial Hospital in Gulfport, Miss. He lives with his wife, son, daughter and their families in Meridian, Miss. He has one great-grandchild and eight grandchildren, seven of which are adopted from the United States, the Philippines and Argentina.

**RON EVENS, MD '64, HS '70,** is happily retired and serves on a few area boards. He has three children, seven grandchildren and five great grandchildren.

**ARNOLD KATZ, MD '67,** finished his second book, "On the Edge II: Memoirs by a Surgeon," which contains stories about medical school in the '60s and memories about "our sainted professor," Carl V. Moore, MD. The book is available through Amazon.

**MICHAEL PACIN, MD '69,** and his wife, Amy Ronner, PhD, have travelled to over 100 countries, mostly since he retired in 2020. They still have over 100 countries to go!

## 1970s

**DENNIS COOPER, MD '71,** recently had his sixth photograph of Arizona scenes published in PHOENIX magazine. He's practiced ophthalmology in Scottsdale, Ariz., for nearly 50 years. He began to travel the state with his camera and do volunteer work with Native Americans. He has been planning events for his friends, hospital staff and fellow WashU Medicine graduates as an alumni co-chair for many years. "I now try to drive to interesting sites instead of hiking them, though," he explained with a smile.



**ALFRED BERG, MD '74,** is a retired professor and chair emeritus of family medicine at the University of Washington and is enjoying a second career as a musician, playing piano and harpsichord with several Seattle chamber music groups and piano with the World Doctors Orchestra. He'll be the pipe organ soloist in the Saint-Saëns "Symphony No. 3" in October with the Lake Union Civic Orchestra.



**MARCIE GORDON STRUM, MHA '79,** has built a career at the intersection of healthcare and science; she currently serves as medical and scientific writer for Endeavor Health, one of the Chicago area's leading healthcare systems. In her role, Strum collaborates with physicians, researchers, residents and fellows to secure funding for clinical research and medical education initiatives. Additionally, her work includes contributing to scholarly publication, producing strategic healthcare communications and impact reports for executive and medical leadership, and supporting philanthropic and innovation-focused programs across the health system. Over the course of her career, Strum has combined strategic communication skills with a deep understanding of healthcare operations and patient engagement. Reflecting on her career path, she credits her WashU Medicine education with strengthening both her leadership perspective and her understanding of the evolving healthcare landscape. She continues to successfully apply those skills to advance research, education, innovation and patient care.



**DAVID MCLAIN, HS '79,** was elected to the Royal College of Physicians for his outstanding contributions to medicine and was designated as a Master of the American College of Rheumatology, a distinction reserved for those who have achieved the highest level of success in the field. McLain's practice in Birmingham, Ala., was also awarded "Best of Alabama" for rheumatology practices in 2025.

**MARY ALICE RYAN, MHA '79,** has retired but is still doing some consulting and serves on two boards. She loves traveling more with her husband, John.

## 1980s



**CHARLES EATON, MD '80,** is a retired hand surgeon. While in practice, he founded and now continues to direct the Dupuytren Research Group, a 501(c)(3) nonprofit public charity working to advance the diagnosis and treatment of Dupuytren disease. They just published their pilot research results on a prototype blood biomarker panel for Dupuytren disease, with potential for both diagnosis and staging — a world first, and the first step toward managing Dupuytren disease with preventive therapeutics rather than surgical salvage. In a time of NIH downsizing, this research was funded entirely through charitable giving: it can be done! Eaton said he has WashU Medicine to thank because this started when he was a second-year medical student and was inspired to become a hand surgeon during a class lecture by Dr. Paul Weeks.

**BERT MANDELBAUM, MD '80,** received the Lifetime Achievement Golden GOAT Award at the Orthopaedic Summit: Evolving Techniques (OSET). It is OSET's highest recognition for surgeons who have left an indelible mark on the specialty.

**JEFF GORDON, HS '81,** was honored in TIME magazine for best inventions of 2025. With Tahmeed Ahmed from Bangladesh's International Center for Diarrheal Disease Research, he formulated a therapeutic food — microbiota-directed complementary food No. 2 (MDCF-2) — to encourage production of specific intestinal bacteria that break down food into molecules linked to bone growth and brain development. The next step, said Gordon, is to get the treatment to "larger populations of children … where acute malnutrition is rampant."

**TIMOTHY CARUSO, BSPT '82,** has been married to his wife, Gina, for over 30 years. They have two college graduates and one engagement so far. Caruso continues with direct patient care at Marklund Wasmond Center in Elgin, Ill., as well as Community Physical Therapy in Addison, Ill. He is a proud president and co-founder of the Kids Equipment Network Children's NFP, which has provided over 5,000 children with special needs adaptive equipment at no cost for over 20 years at monthly equipment clinics. They are in the process of looking for their own building for the charity. Caruso said: "Hello to the WashU Medicine PT class of 1982."

**EDWARD MICHELSON, MD '82,** recently celebrated his 10-year anniversary as professor and chair of the Department of Emergency Medicine at Texas Tech University Health Sciences Center El Paso. He also was granted tenure this spring. He has been doing more speaking and traveling internationally for meetings, lectures and vacation. He keeps getting asked about retirement but still enjoys what he does and is not ready to give it up.

**JAMES PARK, MD '82,** retired in 2023 to Lake Wisconsin, Wis., 50 years after building there and moving in 1973. He said: "There is plenty of room for any classmates visiting the area or wishing to reminisce about the 1979 road trip to cheese land."

**MIKE RICH, HS '84,** retired from WashU Medicine at the end of June. He and his wife, Vicki, will return to the Chicago area after a wonderful 47-year sojourn in St. Louis.

**ERIC GREEN, MD '87, PHD '87, HS '91, HON. D.SC. '18,** retired from federal service in March 2025 after 31 years at the National Human Genome Research Institute (NHGRI) at the U.S. National Institutes of Health (NIH), including the last 15 years as the NHGRI director. In February 2026, he became the chief medical officer at Illumina, Inc. — the world's leading genomics company that is empowering breakthroughs in DNA sequencing and genomic medicine across research, healthcare and biotechnology. As Illumina's medical leader, he is responsible for guiding global efforts to advance the clinical application of genomics, expanding access to precision medicine and increasing diversity in genomic data to improve healthcare for people worldwide.

## 1990s

**JEFFREY GRILLS, MD ’90,** retired from pediatrics and moved to an old farmhouse on the coast of Maine. He is working on his first novel.

**KIM SCHONHOFF-REITER, MSPT ’91,** is celebrating 20 years of owning her physical therapy practice, Body Basics Physical Therapy.

**SCOTT MARKOWITZ, MD ’93,** retired from clinical practice after having the privilege to work at WashU Medicine as professor and vice chair of the Department of Anesthesiology’s Office of Professional Development, Diversity, Equity, and Inclusion, and Well-being. He is now working full time as an executive coach for leaders in academic medicine and is enjoying family time with Liz Markowitz, MD ’91, and their children, Geoffrey, AB ’18, and Lexi, BS ’20, and granddaughter (WashU 2048?). He said to reach out if you’re near Denver.



**PAMELA WOODARD, HS ’96,** head of the WashU Medicine Department of Radiology and director of the Mallinckrodt Institute of Radiology (MIR), has been elected to the National Academy of Medicine — one of the highest honors in health and medicine. Election to the academy recognizes individuals who have demonstrated outstanding professional achievement and commitment to service. She was honored for her leadership as director of MIR, one of the largest academic radiology departments in the U.S., ranking third in funding from the National Institutes of Health (NIH). Woodard’s election reflects a distinguished career as a researcher and clinician — marked by major advances in the development and clinical translation of cardiac imaging techniques that have improved clinicians’ ability to diagnose and treat cardiovascular disease — as well as her dedication to inspiring the next generation of physician-scientists in the field.

**TIM MILLER, MD ’98, PHD ’98,** the David Clayson Professor of Neurology, director of the Miller Laboratory, co-director of the WashU Medicine ALS Center and vice chair of research for the WashU Medicine Department of Neurology, has been elected to the Association of American Physicians, an honorary society of leading physician-scientists advancing innovative, impactful biomedical research.

## 2000s

**MORIAH BECK, PHD ’07,** was elected as a 2025 Fellow of the American Association for the Advancement of Science (AAAS) for “advancing our understanding of the cellular mechanisms of actin filament organization in eukaryotic cells, and for tireless efforts in public and community outreach.”

**JIMMY JYH-MING JUANG, MGE ’08,** is currently a professor of medicine at National Taiwan University College of Medicine and director of the Heart Failure Center at National Taiwan University Hospital. He co-directs the Genetic Heart Disease Center and founded SADS-Taiwan. Juang earned a master’s in genetic epidemiology from WashU Medicine in 2009 and a PhD from National Taiwan University in 2013. His research focuses on the genetics of inheritable cardiac diseases, including Brugada and Long QT syndromes. A prominent researcher, he has published over 120 SCI papers, serves on the editorial board for the Journal of the American Heart Association, is a Fellow of the European Society of Cardiology and contributes to the American Heart Rhythm Society/Asia Pacific Heart Rhythm Society writing and basic research committee. His honors include the 2022 Nong-Ding Award, the highest honor of cardiologists in Taiwan. Additionally, he serves as CEO of The New Century Health Care Promotion Foundation and as a committee member for rare diseases in Taiwan’s Ministry of Health and Welfare.

**NEVA LAURIE-BERRY, PHD ’08,** was promoted to professor of biology at Pacific Lutheran University.

## 2010s

**ANDRE WINELAND, MS ’12,** was promoted to program director for the Pediatric Otolaryngology Fellowship at Arkansas Children’s Hospital/UAMS.

**HRISHIKESH KULKARNI, MS ’17,** was awarded the Allan Swartz and Roslyn Holt Swartz Women’s Lung Health Endowed Chair at the University of California, Los Angeles. He is a physician-scientist focusing on lung immunology in the context of pneumonia and lung transplantation.



# In Memoriam



### Christopher J. Moran, professor emeritus of radiology, 78

Christopher J. Moran, MD, professor emeritus of radiology, died April 30, 2026, of cancer. He was 78.

Moran was a faculty member of WashU Medicine Mallinckrodt Institute of Radiology (MIR) for 45 years, during which he became a pioneer in the pipeline embolization device — a life-saving technology to treat brain aneurysms. He retired from research and clinical practice in 2025.

Born in Detroit, Moran earned his bachelor’s degree from the University of Notre Dame and his MD from Saint Louis University School of Medicine. He completed a residency in diagnostic radiology and a fellowship in neuroradiology in 1978 at MIR and joined the faculty the same year. He rose to full professor of radiology and of neurological surgery in 2003.

As chair of MIR’s Continuous Quality Improvement Committee, Moran led an interdepartmental effort to reduce the time between a patient’s arrival in a medical facility and the start of an intervention.

He is survived by his wife, Eleanor Moran; children John (Molly), William (Courtney) and Mary Catherine; nine grandchildren; siblings Jeffrey (Cindy), Susan and Thomas; and numerous nieces, nephews and in-laws.



### Donald E. Clayton, former associate vice chancellor, 71

Donald “Don” E. Clayton, a 32-year employee and former associate vice chancellor of Medical Public Affairs, died Jan. 8, 2026, surrounded by family after a respiratory illness. He was 71.

Clayton joined Medical Public Affairs (now Marketing & Communications) in 1982 as a medical science writer. In 1990, he was promoted to associate vice chancellor and executive director of Medical Public Affairs, leading a staff responsible for medical news and feature writing, publications, photography, special projects and media relations.

In his roles, Clayton led communications efforts of major milestones that helped cement WashU Medicine’s reputation as a global leader in biomedical research, clinical care and education — including the creation of the Faculty Practice Plan and the Alvin J. Siteman Cancer Center. In 2014, when he retired, Clayton received a lifetime achievement award from the Association of American Medical Colleges.

Clayton is survived by his wife of 48 years, Vicki; children Ben (Katie), Adam (Nicci) and Julie (Brad); grandchildren Owen, Grace, Ella, Sienna, Easton, Summer, Jocelyn, Stephen and Aaron; siblings Pat (Ken), Larry (Donna), Ken (Lisa), Rick (Rosalie), Dave (Sue), Mark (Kathy), Karen and Lisa (Bob); mother-in-law Marilyn; lifelong friend Tony Schmitz; and many nieces, nephews, great-nieces, great-nephews and friends.



### Ann Randolph Flipse, devoted WashU Medicine supporter, 92

Ann Randolph Flipse, MD ’59, HS ’61, WashU Medicine alum, loyal volunteer and supporter, died July 9, 2025. She was 92.

Flipse earned her medical degree from WashU Medicine in 1959, then completed her pediatric residency at St. Louis Children’s Hospital and Variety Children’s Hospital in Miami. After 13 years in private practice, she became the first female president of the medical staff at North Shore Medical Center, then joined the faculty of the University of Miami School of Medicine, where she taught for 20 years.

Throughout her life, Flipse remained devoted to her WashU Medicine classmates, compiling the class newsletter for years and hosting class reunion events. As a steadfast WashU Medicine supporter, she spearheaded the Class of 1959 Scholarship, was an Eliot Society member and supported various teaching and scholarship funds. She established the Ann Randolph Flipse, M.D. Scholarship in Medicine in 2010 and faithfully supported medical student education for decades. She received the WashU Medicine Alumni Achievement Award in 2019.

She was preceded in death by her husband, Thomas Edward Flipse, MD. She is survived by her children Thomas R. (Trish) Flipse, Matthew J. Flipse, Sara C. (Jessi) Flipse and Ann E. Flipse; and by three grandchildren.



## Brian A. Van Tine, professor of medicine and of pediatrics, 53

Brian A. Van Tine, MD, PhD, a nationally recognized leader in sarcoma research, died Nov. 8, 2025, at Barnes-Jewish Hospital following an acute illness. He was 53.

Van Tine was a professor of medicine and of pediatrics in the John T. Milliken Department of Medicine's Division of Oncology. He directed the Sarcoma Program at Siteman Cancer Center, based at Barnes-Jewish Hospital and WashU Medicine, where he built one of the country's largest research and clinical programs in sarcoma.

A highly accomplished and respected physician-scientist and pioneer in tumor metabolism research, Van Tine identified ways to exploit the unique metabolism of cancer cells to develop new therapies that kill sarcoma cells by cutting off their fuel supply while sparing healthy cells.

He founded and chaired Siteman's Sarcoma Tumor Board, a weekly meeting of cross-disciplinary experts who review individual patient cases and clinical trials; was director of developmental therapeutics for phase 1 clinical trials at Siteman; and served as the WashU Medicine principal investigator for 100+ clinical trials, including several based on his lab's research.

Van Tine was an inspirational mentor and educator to many medical students, residents, fellows and junior faculty members. He was also a central figure in national and international oncology organizations and cancer journals.

A native of Phoenix, Van Tine earned bachelor's degrees in chemistry and biochemistry from the University of Arizona, Tucson, then a doctoral degree in pathology and a medical degree from the University of Alabama at Birmingham. He completed his internship, residency and fellowship – including serving as chief fellow in hematology and oncology – at WashU Medicine and Barnes-Jewish Hospital before joining the faculty of the Division of Oncology in 2011.

Van Tine is survived by his husband Josh Hall; mother Carole Van Tine; brother Matthew Van Tine; and mother-in-law, sisters-in-law, nieces and nephews.



## Steven L. Teitelbaum, professor of pathology and immunology, 87

Steven L. Teitelbaum, MD, a nationally recognized leader in bone biology research, died Dec. 15, 2025, after suffering an intracranial hemorrhage. He was 87.

Teitelbaum was the Wilma and Roswell Messing Professor of Pathology & Immunology and professor of medicine in the WashU Medicine Division of Bone & Mineral Diseases. A highly accomplished and respected physician-scientist, he studied the balance between the cells that build up bone and those that break it down. His work led to the development of therapies for bone-related conditions such as osteoporosis and rheumatoid arthritis.

A native of Brooklyn, New York, Teitelbaum earned a medical degree from WashU Medicine in 1964 before completing his clinical training at WashU Medicine and New York University. He returned to WashU Medicine in 1968 as a clinical fellow in pathology and joined the faculty in 1969. Teitelbaum served as chair of the Department of Pathology of Jewish Hospital from 1987 to 1996.

Teitelbaum is survived by his brother Herb; sister-in-law Ruth; children Caren, Aaron and Rebecca; son-in-law Jon; daughter-in-law Marci; grandchildren Samuel, Leo and Quinn; and several nieces, nephews, grandnieces and grandnephews. He was twice widowed, first by his wife Eve Sternberg Teitelbaum and then by his wife of more than 50 years, Marilyn Schaffner Teitelbaum.

## Remembering our alumni

**View the complete In Memoriam listing and celebrate the lives of WashU Medicine alumni who have left a lasting impact on medicine, science and our community.**

Scan the QR code to visit the memorial page.

## 1940s

**Lyle Burroughs,** MD '48, December '25
**James Little,** HS '49, August '25

## 1950s

**Marjorie Bracken,** BSOT '55, October '25
**Rob Bunch,** MD '52, September '25
**Charles Cliffe,** MHA '58, August '25
**Marilyn Dien,** BSOT '55, October '25
**David Edwards,** MD '55, November '25
**Ann Flipse,** MD '59, August '25
**Ann Henrichs,** MD '50, November '25
**Harriet Kaplan,** MD '56, January '26
**Barbara Kimball,** BSPT '55, June '25
**David Lieberman,** HS '55, October '25
**Herbert Lubowitz,** MD '58, August '25
**W. Magee,** HS '51, November '25
**Roland Mernitz,** MD '58, September '25
**Harold Nekonishi,** MD '56, August '25
**Albert Oberman,** MD '59, February '26
**Robert Petersen,** MD '56, February '26
**Arthur Prensky,** HS '57, June '25
**Charles Ross,** HS '50, January '26
**Jerome Silverman,** MD '58, August '25
**William Sims,** MD '57, February '26
**John Singleton,** MD '57, December '25
**John Spitznagel,** HS '52, January '26
**Elizabeth Stedelin,** BSPT '57, June '25
**Frank Traylor,** MD '55, January '26
**Alvin Wenneker,** MD '53, September '25

## 1960s

**Robert Andersen,** MD '67, August '25
**Ronald Barnet,** MD '63, January '26
**Darryl Bindschadler,** HS '65, February '26
**Joseph Black,** HS '67, June '25
**Hillard Cohen,** HS '66, August '25
**Robert Carnighan,** HS '68, October '25
**Pedro Cuatrecasas,** MD '62, August '25
**Richard Donabedian,** MD '62, August '25
**Aaron Feldman,** MD '65, October '25
**Eric Friedrich,** MD '67, June '25
**Wayne Fung,** HS '67, August '25
**Nancy Hultquist,** BSOT '60, December '25
**Gary Jobin,** HS '69, August '25
**Wilma Johnson,** BSPT '60, February '26
**Robert Kaufman,** MD '63, August '25
**Jean Kilbridge,** HS '64, February '26
**Stuart Kornfeld,** MD '62, Hon DSc '21, August '25
**Clarence Lay,** MHA '68, October '25
**Joseph Migliore,** HS '67, February '26
**Carl Mitchell,** MD '61, October '25
**William Mitchell,** MHA '61, December '25
**Hugh Murrell,** HS '69, September '25
**Michael Orgel,** HS '71, October '25
**James Parrish,** HS '64, January '26
**Wendy Recant,** MD '66, June '25
**David Reisler,** MD '61, HS '69, August '25
**Herbert Schaumburg,** MD '60, November '25
**Sharon Shaw,** BSOT '63, November '25
**Baikunth Singh,** HS '65, August '25
**Lynn Taussig,** MD '68, August '25
**Steven Teitelbaum,** MD '64, December '25
**Leslie Torgerson,** MD '66, December '25
**Argyrios Tsifutis,** HS '62, October '25
**Peter Walsh,** MD '61, HS '66, September '25
**Carl Watanabe,** MD '65, December '25
**David West,** MHA '64, February '26
**Raymond Wilbers,** HS '68, August '25

## 1970s

**James Burks,** HS '78, October '25
**William Caplan,** MD '73, March '26
**Nancy Clark,** BSOT '71, October '25
**Bruce Cowan,** MD '70, November '25
**Carl Ehrlich,** HS '70, October '25
**David Elliott,** MHA '71, August '25
**Patricia Erickson,** BSPT '78, December '25
**Joseph Feth,** MHA '74, February '26
**Barry Halpern,** HS '70, August '25
**Charles Hershey,** MD '77, June '25
**Alvin Korba,** HS '77, October '25
**Kenneth Lisberg,** MD '72, February '26
**Shri Mishra,** HS '76, October '25
**Clarence Partain,** MD '75, January '26
**Larry Pickering,** HS '74, August '25
**Frank Robbins,** MD '77, October '25
**Bertram Roberts,** HS '70, August '25
**Calvin Robinson,** MHA '76, June '25
**Richard Sandefur,** MD '75, August '25
**Philip Schmitt,** MD '79, September '25
**Eugene Shepherd,** MD '73, August '25
**Gregorio Sicard,** HS '78, September '25
**Irwin Spirn,** MD '75, February '26
**Jean Thomas,** MSW '77, MD '81, August '25
**Ronald Weller,** MD '74, February '25

## 1980s

**Steven Bello,** MD '86, HS '91, December '25
**Raymond Bullerdiek,** BSPT '83, February '26
**Jack Carmichael,** BSPT '85, January '26
**Janice Eggert,** HS '86, November '25
**Michael Gordon,** HS '80, October '25
**Marion Hawes,** MHA '88, January '26
**Timothy Heinze,** MHA '86, November '25
**George Kurose,** MD '88, October '25
**Linda Margulies,** HS '86, January '26
**Sara Newell,** HS '82, June '25
**Steven Rettinger,** MD '89, August '25
**David Weinstein,** HS '89, January '26
**Paul Weiss,** HS '86, August '25
**David Wyatt,** HS '84, December '25

## 1990s

**Gyan Brard,** MD '90, April '26
**Elizabeth La Scala,** BSPT '90, MSPT '90, June '25
**John Lindsey,** MD '90, August '25
**Dwight Look,** HS '91, August '25
**Valerie Obremski,** PHD '93, February '26
**Eric Vaughn,** MD '91, March '26
**Steven Wright,** BSPT '90, MSPT '90, August '25

## 2000s

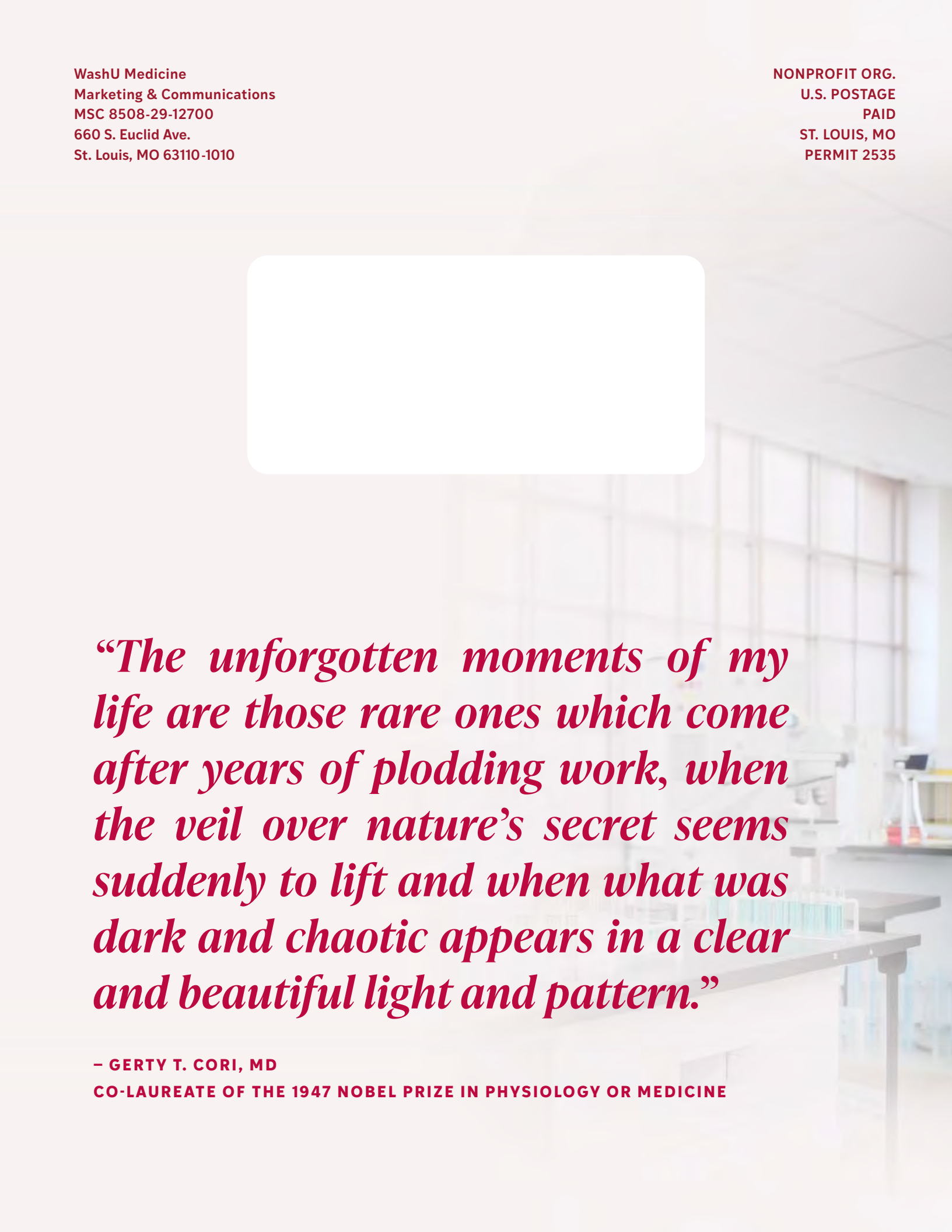
**Anuradha Sen,** MSOT '07, October '25

## 2020s

**Joshua Alinger,** PHD '22, MD '22, April '25

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*"The unforgotten moments of my life are those rare ones which come after years of plodding work, when the veil over nature's secret seems suddenly to lift and when what was dark and chaotic appears in a clear and beautiful light and pattern."*

**– GERTY T. CORI, MD**
**CO-LAUREATE OF THE 1947 NOBEL PRIZE IN PHYSIOLOGY OR MEDICINE**