

# Washington



## OFFERING HOPE

Fred Ssewamala and his research team's award-winning interventions are reshaping the future for children and families in Uganda.

### Spinning Gold

Michael Loynd, JD '99, weaves a compelling tale of the birth of U.S. swimming and one overlooked athlete's role in it, pg. 14.

### Planting for the Future

Arboretum curator Stan Braude shares his goal for the campus landscape as well as for those who enjoy it, pg. 36.

### Teaching Beyond the Call

Andia Augustin-Billy, MA '09, PhD '15, hopes to see more faculty who look like her in the classroom. Until then, she's determined to lead the way, pg. 47.

# Convocations

“Learn to find joy in the process. While it’s important to celebrate milestones, the beginnings and endings, it’s what happens in between that is the real magic. ... When you are WashU alumni looking back on these years, those are the moments that will mean the most.”

— CHANCELLOR ANDREW D. MARTIN (LEFT) TO THE CLASS OF 2026 AT CONVOCATION IN AUGUST

On the cover: Fred Ssewamala and his research team here and in Uganda are creating and implementing poverty alleviation and public health interventions that are making a huge difference in the lives of children, families and communities in the African country. In the photo, he’s with a student at the St. Raphael Bulinda Primary School in the Masaka District.  
Photo: Thomas Malkowicz

On this spread: (From left) Chancellor Andrew Martin; Provost Beverly Wendland; Anna Gonzalez, vice chancellor for student affairs; and Ronné Turner, vice provost for admissions and financial aid, wear festive shoes for Convocation 2022.  
Photo: Sid Hastings



EDITOR  
Terri Nappier

CONTRIBUTING EDITOR  
Leslie Gibson McCarthy

CLASS NOTES EDITOR  
Carl Jacobs

SENIOR CREATIVE DIRECTOR  
Tracy Collins

ART DIRECTOR  
Jennifer Wessler

SENIOR GRAPHIC DESIGNERS  
Monica Duwel  
Kayse Larkin

MULTIMEDIA SERVICES  
Joe Angeles  
Anne Davis Cleary  
Thomas Malkowicz  
Rachel Twedt  
Javier Ventura

CIRCULATION MANAGER  
Galen Harrison

CONTRIBUTING WRITERS  
Tamara Bhandari  
Jeannette Cooperman  
Emma Dent  
Daniel Durchholz  
Anna Gonzalez  
Thomas Humphrey  
Brandie Jefferson  
Diane Torioian Keaggy  
Julie Kennedy  
Grizelda McClelland  
Rick Skwiot  
Brittney Wheeler

CONTRIBUTING ARTISTS  
Tony Avelar  
Sid Hastings  
Jerry Naunheim Jr.  
Danny Reise  
Meghan Spiro

VICE CHANCELLOR, MARKETING &  
COMMUNICATIONS  
Julie Hail Flory

ASSISTANT VICE CHANCELLOR,  
STRATEGIC COMMUNICATIONS &  
MARKETING  
Jackie Schlarman

## DEPARTMENTS

### IN EVERY ISSUE

FROM THE CHANCELLOR 2  
FEEDBACK 3

### IN ST. LOUIS 4

NEWS FROM AROUND  
THE UNIVERSITY

CAMPUS NEWS 6  
RESEARCH ROUNDUP 8  
ON TOPIC 8  
QUOTED 11  
COURSEWORK 12  
BOOKSHELF 14  
POINT OF VIEW 16  
BIG IDEA 18

### NEXT 42

THE WORLD OF OUR  
WASHU ALUMNI

ALUMNI PROFILES 44  
FIRST PERSON 49  
MY WASHINGTON 50  
ALUMNI ACTIVITIES 52  
CLASS NOTES 54  
IN MEMORIAM 60  
LASTING IMPRESSION 64

## FEATURES

### 20 Offering Hope — and a Way Forward

Fred Ssewamala and his team's inter-  
ventions are making a huge difference in  
communities in Uganda.

### 30 Pushing the Boundaries of the Visible World

WashU engineers, scientists and physicians  
team up to advance imaging science and  
improve human health.

### 36 Planting for the Future

Stan Braude, the new arboretum curator,  
has a goal for the campus landscape, and  
he wants you to revel in it.



Photo: Sid Hastings

(From left) Chancellor Andrew Martin speaks with Sarah Del Carmen Camacho, Arts & Sciences Class of 2023, who is an Annika Rodriguez Scholar, Trio Scholar and Mellon Mays Fellow; and Nicholas Armstrong, Law Class of 2023, who is a Michael Schiff Family Scholar in Law, about WashU being a place that allows students to be who they are and achieve success beyond anything they might have thought possible when they entered.

## Making way for students to thrive

Greetings from Washington University! As we approach the end of the semester, I would like to share a little about what we've accomplished during the past several months and how this is setting the stage for what's to come. Here, we remain optimistic and energized for the work ahead of us — work that will help us fulfill our mission, which is to act in service of truth through the formation of leaders, the discovery of knowledge and the treatment of patients for the betterment of our region, our nation and our world.

At the heart of our mission is undergraduate education. That's where we have a tremendous opportunity to build on our foundation to admit, educate and nurture the brightest young minds who will lead us into the future.

As many of you know, one of my highest priorities as chancellor is to increase access to WashU for deserving students who might not otherwise consider attending, due to either cost or cultural concerns. We would like them to know that they, too, have a place here — that we see their accomplishments, we see their potential, and we're ready to remove barriers and support their success so they can make their unique and positive marks on the world.

The momentum for this important work continues to build. In 2019, we implemented the WashU Pledge, which offers tuition, room and board to qualifying lower-income students from Missouri and Southern Illinois. Then in 2021, we took a big leap forward with our implementation of Gateway to Success and the shift to need-blind admissions. And just two months ago, in October, we publicly launched a bold initiative focused on student support — one that is essential to our mission and long-term vitality.

Through this initiative, we're asking for philanthropic investment in undergraduate

and graduate scholarships so that we can attract the most qualified students and make a Washington University education financially accessible to them all. We also aim to enhance our student experience, making it truly best-in-class, empowering students to thrive by offering specialized orientations, peer and professional mentorship, services in health and well-being, meaningful career preparation and additional financial support for unexpected expenses.

We're calling this exciting initiative Make Way: Our Student Initiative because that's truly what we're aiming to do: make a way for these students to learn, thrive and then carry their education and experience on to their communities and workplaces. They've done the work, they've shown their potential, and we're going to remove the financial and cultural obstacles that might otherwise prevent them from attaining the exceptional educational experience that WashU can offer.

I deeply believe this is the way forward for WashU and that the time is right to think big on behalf of our brilliant students, who, if given the opportunity, will become the trailblazing leaders of the future.

I hope this initiative resonates with you because we will need support to achieve this bold vision. Thank you for being champions of WashU and our students, and for continuing to read the magazine and staying engaged with the university.

Wishing you and yours the very best during this holiday season.

Andrew D. Martin  
Chancellor



@WashUChancellor

FEEDBACK

## In case you missed it ...

**“Outstanding job on ‘Into the Wild.’  
You all do a beautiful job connecting  
Arpita Bose, her research, WashU,  
family and Missouri.”**

**ERIK HERZOG, THE VIKTOR HAMBURGER DISTINGUISHED  
PROFESSOR IN ARTS & SCIENCES AND PROFESSOR OF BIOLOGY**



“This video is amazing! It’s so, so beautifully done, and the science is so important. Kudos!”

**ELIZABETH HASWELL, HHMI-SIMONS FACULTY SCHOLAR  
AND PROFESSOR OF BIOLOGY**

“This story took a global issue and explained it using a local approach.”

**QUOTE FROM CASE COMPETITION JUDGES REGARDING  
“IN SEARCH OF REFUGE” PACKAGE**

In addition to all the content you’re holding in your hands, *Washington Magazine* produces videos that highlight the university’s ideas, research and impact. In the series “Our world by degrees,” for example, the team focuses on how WashU researchers and students are working to understand the powerful forces behind climate change, its impacts and the tools needed to solve these challenges.

In April 2022, video producers followed Arts & Sciences biologist Arpita Bose to an island in the middle of the Mississippi River. In the video “Into the wild,” Bose helped explain the importance of wetlands and the microorganisms living there to capture carbon – and to possibly provide solutions for a clean energy future.

In December 2021, the “Our world by degrees” team asked engineers Rajan Chakrabarty and Randall Martin of the McKelvey School of Engineering to explain their area of expertise, fine particulate matter, and how it causes environment-related disease in “Something’s up.”

And in “In search of refuge,” included in the August 2021 magazine, researchers looked at whether Ozark oases at WashU’s Tyson Research Center – climate change refugia – could help species persist despite rising temperatures.



View these videos and others at [source.wustl.edu/group/magazine/](https://source.wustl.edu/group/magazine/).

The climate series is garnering attention and accolades. The “Our world by degrees: In search of refuge” video – produced by Anne Cleary, AB ’03, Thomas Malkowicz and Talia Ogliore – was awarded a 2022 Regional Emmy® Award from the Mid-America Chapter of the National Academy of Television Arts & Sciences in the Environment/Science category, Oct. 29. These awards recognize excellence in television/digital video and focus public attention on outstanding cultural, educational, entertainment, news, informational programming and craft achievements.

The video companion to “Something’s up” was awarded a Silver Telly in the science and technology category. The Telly Awards is an international competition that honors excellence in video and television across all platforms.

And “Our world by degrees: In search of refuge” was again recognized, this time with a Bronze CASE Award for Communications: Storytelling. CASE – Council for Advancement and Support of Education – is a global association dedicated to educational advancement (including alumni relations, communications, marketing and more). And for us in WashU’s University Marketing & Communications office, CASE represents an important group of our peers in communicating the successes of the university and its research endeavors.

## We want to hear from you!

**PLEASE SEND FEEDBACK TO**  
Terri Nappier, Editor  
Washington University in St. Louis  
Campus Box 1070  
One Brookings Dr.  
St. Louis, MO 63130-4899  
**EMAIL**  
[wustlmageditor@wustl.edu](mailto:wustlmageditor@wustl.edu)

**SEND ADDRESS CHANGES TO**  
Development Services  
Washington University in St. Louis  
Campus Box 1082  
7425 Forsyth Blvd.  
St. Louis, MO 63105-2103  
**EMAIL**  
[wuaddatachange@wusm.wustl.edu](mailto:wuaddatachange@wusm.wustl.edu)



@WUSTL



WUSTL\_official



WUSTL



[youtube.com/wustlpa](https://youtube.com/wustlpa)



[linkedin.com/school/washington-university-in-st-louis](https://linkedin.com/school/washington-university-in-st-louis)

# ST. LOUIS *In*

## Hope in action

Global icon **Jane Goodall** visited WashU Oct. 9 to give an Assembly Series lecture, titled “Dr. Jane Goodall: Inspiring Hope Through Action.” Goodall spoke to a capacity crowd in Graham Chapel, and after her address, she answered questions from the audience.

(Left) **Crickette Sanz, MA '01, PhD '04**, professor of anthropology who also studies primates, served as moderator. For more on Goodall’s inspiring message, visit: <https://source.wustl.edu/2022/10/inspiring-hope-through-action/>.



Photo: Sid Hastings



### BOOSTING STUDENT OUTCOMES

From boosting ninth-grade reading scores at a local high school to introducing project-based lessons at an elementary school, principals at seven schools in the Saint Louis Public School (SLPS) district were poised to achieve grand goals after participating in the inaugural cohort of the SLPS Principal Redesign Fellowship, a bold new collaboration between SLPS and WashU's Institute for School Partnership.

The seven principals worked together for more than a year to develop tangible strategies to boost student outcomes and teacher satisfaction using an appreciative inquiry model — leveraging what they've got to get the result they want. "These leaders have been empowered to dream big in designing a new vision for their schools," says **Nikki Doughty**, ISP associate director of strategic initiatives. "It all started with a question: 'What is already successful and strong in your school?'"

### NEW COURSE ON THE POLITICS OF REPRODUCTION

In response to the U.S. Supreme Court's *Dobbs v. Jackson* ruling that overturned *Roe v. Wade* and eliminated constitutional protections for abortion, an interdisciplinary course called the "Politics of Reproduction" helped students this fall move toward a nuanced understanding of what led to the ruling, as well as its implications in a post-Roe world.

Designed by **Rebecca Wanzo**, professor and chair of the Department of Women, Gender, and Sexuality Studies in Arts & Sciences, the course was set up to appeal to students from every discipline and provide them with a base of knowledge needed to think about the issue more holistically. Leading scholars from almost every school and guest speakers conducted the classes in lectures and public webinars, which covered such topics as reproductive health, the economics of abortion, reproductive justice, religion and more.

Wanzo said the class was designed to be "an exploratory course that gives people time to think through issues in a way that might be challenging for them or out of their comfort zone."

### A PELL GRANT MILESTONE

The arrival of the Class of 2026 in August helped WashU mark a major milestone in the goal of enrolling more students with limited resources: 20% of the class was Pell Grant-eligible, a 15 percentage-point increase from 10 years ago. In addition, 15% were the first in their families to attend college, and 51% identified as students of color. In total, 1,826 first-year students from across the globe enrolled in the Class of 2026 and moved onto the South 40 residential area. They were selected from a field of 33,214 applicants.



# SLAVE

SUMMER COLLEGE PREP PROGRAM

A commitment to rural students

Alumna and Emerita Trustee **Joyce Buchheit** and her husband, **Chauncy Buchheit**, made an \$845,000 gift to help WashU attract talented students from rural communities in Missouri and Southern Illinois. The gift will establish a free summer college prep program and fund two admissions officers dedicated to rural communities served by the WashU Pledge, the initiative that provides undergraduate education to admitted students from Missouri and Southern Illinois who are Pell Grant-eligible or from families with annual incomes of \$75,000 or less.

## DYBVIG WINS NOBEL PRIZE IN ECONOMICS

**Philip H. Dybvig**, the Boatmen's Bancshares Professor of Banking and Finance at Olin Business School, woke up to a phone full of texts and voicemail messages Oct. 10. It was then that he learned of his selection by the Royal Swedish Academy of Sciences as one of three economists to share the 2022 Nobel Memorial Prize in Economic Sciences.

Dybvig and University of Chicago Professor Douglas Diamond were selected for their seminal 1983 paper, "Bank Runs, Deposit Insurance, and Liquidity," which introduced an economic model that explained why banks are subject to runs. They shared the prize with Ben Bernanke, the former Federal Reserve chair who also published a paper in 1983 that explained how bank failures can propagate a financial crisis rather than simply being a result of the crisis.



Dybvig's work is one of the most widely cited papers in finance and economics — appearing in more than 11,000 citations since its publication. The "Diamond-Dybvig model" became synonymous with the study of banking, financial crises and liquidity, and it demonstrated that all bank runs share the same DNA, despite different circumstances and triggers for panics.

He joins a prestigious list of Nobel laureates affiliated with WashU, 26 in all, many of whom did a significant portion of their award-winning work here. Dybvig is the second WashU faculty member to receive the Nobel in economics.

## 36,000 voyages

Delving into the slave trade

WashU has joined SlaveVoyages, a collaborative digital initiative that compiles records related to the transatlantic slave trade. The database is helping researchers for the WashU & Slavery Project learn more about the slave trade in and around St. Louis. Initiated in 2021 by the Center for the Study of Race, Ethnicity & Equity, the project is examining WashU's legacy of slavery and racial violence.

The database documents more than 36,000 voyages that transported enslaved Africans between 1514 and 1866; an intra-American slave trade database, which contains information on more than 11,000 maritime voyages within the Americas; and databases that provide personal details of some 150,000 enslaved people.

## A LEADER IN LEUKEMIA RESEARCH

**Timothy J. Ley, MD**, the Lewis T. and Rosalind B. Apple Professor of Medicine at the School of Medicine, has been honored by the American Society of Hematology with the Henry Stratton Medal, awarded annually to two individuals: one who has made outstanding contributions in basic science and one for achievements in clinical research or translational research. Ley is being recognized for leading the effort to sequence the first human cancer genomes from patients with acute myeloid leukemia (AML). His research focuses on understanding the molecular underpinnings of AML, including the acquired mutations and altered gene expression patterns responsible for the disease's initiation, progression and relapse.



## Those carnivorous plants

Watch out, Audrey, we've got your number now. Insect-eating plants have fascinated biologists for centuries, but how they evolved the ability to capture and consume live prey has remained a mystery. Now, scientists at WashU and the Salk Institute have investigated the molecular basis of plant carnivory and found evidence that it evolved from mechanisms plants use to defend themselves. The research details how calcium molecules move dynamically within cells in the leaves of carnivorous plants in response to touch from live prey. Calcium fluctuation leads to leaf movements for prey capture, likely through an increase in defensive hormone production. The findings broaden scientists' understanding of how plants interact with their environments.



### A NONINVASIVE WAY TO DETECT BRAIN INJURY

Blast-induced traumatic brain injury has become all too common for U.S. military members. From 2000 to 2019, nearly 414,000 such injuries were reported among the military worldwide. But there's hope. With the help of a three-year, \$750,000 grant from the Office of Naval Research, McKelvey School of Engineering biomedical engineer **Hong Chen** is developing wearable passive sonar for the brain to detect cavitation, the formation of empty spaces. These wearable sensors could provide direct, noninvasive evidence of shock wave-induced cavitation in the human brain during exposure to blasts.

### TAKING AIM AT NEURODEGENERATIVE DISEASES

A new center established at the School of Medicine aims to accelerate research into biomarkers of neurodegenerative conditions such as Huntington's and Parkinson's diseases, amyotrophic lateral sclerosis (ALS), multiple sclerosis (MS) and the so-called tauopathies, a group that includes Alzheimer's disease along with rarer diseases such as frontotemporal dementia, corticobasal syndrome and progressive supranuclear palsy. The Tracy Family Stable Isotope Labeling Quantitation Center for Neurodegenerative Biology (Tracy Family SILQ Center) is helping researchers discover, study and validate biomarkers of such diseases, with a goal of identifying new drug targets and creating better diagnostic and prognostic tests.

### 'BOUT THE BIRDS AND THE BEES – AND CLIMATE CHANGE

Scientists are working hard to understand if – and how – organisms are adapting to climate change. New research from Arts & Sciences biologist **Michael Moore** is looking for pathways through the birds and the bees – and other members of the animal kingdom. Why? Animals tend to put their lives on the line for reproduction, even at the cost of being the wrong body temperature. “Studying the correlated evolution of sexual and thermal traits could alter our predictions of which populations are most vulnerable to climate change,” he says. That's to say, in a warming world, some species will adapt and survive – and some won't.

### JOURNEY TO THE CENTER OF THE EARTH

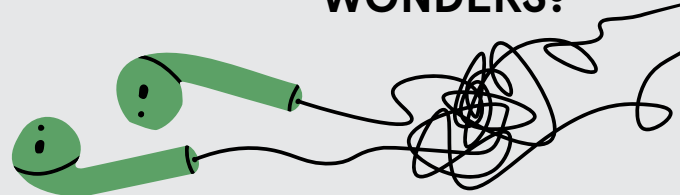
The deepest parts of the Earth aren't as gooey as scientists once thought. In a study published in *PNAS*, **Rita Parai**, associate professor of Earth and planetary sciences in Arts & Sciences, found that the deep part of the ancient mantle closest to the Earth's core started out substantially drier than the part of the mantle closest to the young planet's surface.

By analyzing noble gas isotope data, she determined that the ancient plume mantle (the deep part) had a water concentration that was a factor of 4 to 250 times lower when compared with the water concentration of the upper mantle. The resulting viscosity contrast might have prevented mixing within the mantle, helping to explain certain long-standing mysteries about the Earth's formation and evolution.



For more on university research and faculty achievement, visit [source.wustl.edu/news](http://source.wustl.edu/news).

## THE REASON BEHIND ONE-HIT WONDERS?



What do Mira Sorvino, Gnarlz Barkley and Harper Lee have in common? They're all award-winning, one-hit-wonder artists — the Oscar, the Grammy and the Pulitzer Prize, respectively — who were unable to sustain initial success. And Olin Business School research may have come across a reason.

Olin's **Markus Baer** co-authored a study that found that recognizing first-time producers of successful work or ideas with an award or other recognition significantly decreased the likelihood of more creative work. "People who develop novel ideas and receive rewards for them start to see themselves primarily as a 'creative person,'" Baer says, one in constant need of protection.

The research found that once a person basked in the glow of a creative spotlight, it was hard to step out of it. "You cannot compromise your identity and reputation when you do not produce anything new," Baer says. In other words, fear of failure the second time around can cause producers to avoid taking risks that could threaten their creative identity.

### NOT A PUFF PIECE

New School of Medicine research sheds light on the perception of vaping as a safer alternative to cigarettes. It's not. Smokers who begin using e-cigarettes often become dual nicotine users, smoking both traditional cigarettes and vaping e-cigs. The good news, researchers discovered, is that FDA-approved smoking-cessation treatments that focus on nicotine replacement and counseling can help dual users quit.

### TAKING ON HACKERS

Research from the lab of computer scientist **Ning Zhang** of the McKelvey School of Engineering is focusing on a new way to ensure safety from cyberattacks on everything from pacemakers to autonomous vehicles. The method gives control to the user, which is critical, for example, if a hacker has tapped into your self-driving car.

Zhang's team outlined a new framework for system availability in cyber-physical systems that ensures the user has availability assurance to some of the controls so that, in the event of a cyberattack, the system remains safe. The method relies on two principles: 1. isolation between critical and noncritical components; and 2. complete mediation over critical system resources. To keep critical components out of a hacker's reach, they must be isolated from the rest of complex systems.

### A RIVER RUNS THROUGH IT

In the wake of record flooding to hit the St. Louis area, the timing of geomorphologist **Claire Masteller's** National Science Foundation grant was perfect. Masteller and her team started a new experiment last summer that could anticipate — and perhaps even prevent — damage wrought by intense flooding.

"We're interested in what happens when the water hits the ground," says Masteller, assistant professor of Earth and planetary sciences in Arts & Sciences, "and how the landscape must adjust to deal with the fact that the amount of water that hits the ground is changing."

The scientist set up what amounts to an experimental water slide, a structure of tubes and boxes of rocks and gravel called a flume, which can be tilted up and down to mimic different slopes. With it, the team can see how the structure of a riverbed evolves with shifting precipitation. Masteller says her team can model everything from the Mississippi River to mountain streams of the Swiss Alps. It's great news because after this summer, we're going to need all the information about rivers we can get.



OLLI's current course offerings are available at [osher.wustl.edu](https://osher.wustl.edu).

To read Lilo Fauman's essay on the Holocaust, visit [source.wustl.edu/2022/12/deeply-affecting-discovery/](https://source.wustl.edu/2022/12/deeply-affecting-discovery/).

## A deeply affecting discovery

The Osher Lifelong Learning Institute (OLLI) offers students ages 50 and older intellectually challenging courses and camaraderie. Recently discovered photos and essays from an OLLI memoir writing course emphasize the gift of lifelong learning.

**Janet Gillow**, the newly appointed director of the Osher Lifelong Learning Institute (OLLI) at Washington University, was clearing out a storage room when she made an amazing discovery. There, stuffed between old newsletters and course catalogs, were the memoirs and photographs of Holocaust survivor Lilo Fauman.

"I was not prepared for the horror of November ninth, nineteen-thirty-eight. Kristallnacht. The night of broken glass," read one essay. "At three o'clock in the morning, the telephone rang to inform my father that our large and gorgeous synagogue was on fire, one that was set by the Storm Troopers."

Setting out to learn more about the author, Gillow discovered that Fauman had been a devoted student of the institute, where students ages 50 and older take and lead classes on topics ranging from French literature to plant physiology. In 2000, Fauman had enrolled in "Telling Your Story," a popular writing class. She would die four years later at the age of 80. During her search, Gillow also discovered she knew one of Fauman's survivors, granddaughter Laura Horwitz.

"The internet is a powerful thing," Gillow says. "I immediately reached out to Laura so I could restore this bit of history to Lilo's family. She wrote with such poignancy about her family's escape. And to think these photos made the trip from Nazi Germany to America."

Horwitz and her son, Jonah, soon visited Gillow to collect the artifacts. Horwitz already had read some of the essays; other stories, like the one on Fauman's first day at a Detroit high school, were new. Fauman recounts the sting of being called "the refugee" and the kindness of a teacher who secured her a college scholarship.

"The teacher, Mr. Pettis, comes to me and says in German, 'Miss Stark, Welcome to America,'" wrote Fauman, whose maiden name was Stark. "I could have kissed him."

"I know a lot of her stories backward and forward; they have been foundational in shaping who I am," Horwitz says. "But the beautiful thing about having them written is that I can share them with my kids. These memoirs bring my grandmother to life; I read the words and hear her voice."

For Gillow, the discovery reaffirmed the power of OLLI. Launched in 1995, the institute serves some 600 members and is one of 123 institutes across the nation that receives funding from the Bernard Osher Foundation. As director, Gillow, AB '91, MSW '95, hopes to enroll more WashU alumni and retirees as well as attract a more diverse student body.

"Our motto at the Osher Lifelong Learning Institute is that curiosity never retires," Gillow says.

Gillow joined OLLI because of her own grandmother, who, like Fauman, never stopped learning. Back when Gillow was a WashU undergraduate, she and her grandmother enrolled together in a University College class about St. Louis history. It was, for both of them, one of the best experiences of their lives.

"She never stopped talking about that class," says Gillow, who earned an MSW degree from the Brown School and later served as the school's director of professional development programs. "So, when people say, 'OLLI saved my life,' they mean, 'I was home, alone. Now I'm making friends and learning new things.'"

■ DIANE TOROIAN KEAGGY, AB '90

QUOTED

'WASHU IN THE NEWS'

WashU experts weigh in on the major topics of the day.

**"It's clear that none of these vaccines are going to completely prevent infection."**

But prior studies of variant booster candidates show "you still get a broader immune response giving a variant booster than giving the same booster" again, which should be helpful even if a newer omicron relative emerges.

**RACHEL PRESTI, MD '01, PHD '01**, ASSOCIATE PROFESSOR OF MEDICINE AND A RESEARCHER WITH THE MODERNA TRIAL, IN "PFIZER SEEKS OK OF UPDATED COVID VACCINE BOOSTER FOR FALL" IN *AP NEWS*, AUG. 22.



**"We know sewer development started after the Civil War, but a lot of that sort of expansion was done piecemeal by property owners and developers. So there are older sewer sections, even back to the 1840s wood boxes."**

**MICHAEL ALLEN**, A SENIOR LECTURER IN ARCHITECTURE, IN "AS 'FLASH FLOODS ARE GETTING FLASHIER,' COMMUNITIES WORRY ABOUT AGING INFRASTRUCTURE," ON *PBS NEWSHOUR*, AUG. 10.



"Change in temperature drives all the other systems: It drives ocean currents, it drives air jet stream patterns, and it drives not only the amounts of rain and snow that fall but the patterns in how they fall. The average rainfall for July and August combined in St. Louis is 7.5 inches, and we got that in six hours. That's going to happen much more frequently."

**MICHAEL WYSESSION**, PROFESSOR OF GEOPHYSICS IN THE DEPARTMENT OF EARTH AND PLANETARY SCIENCES IN "HISTORIC RAINFALL IN ST. LOUIS RAISES QUESTIONS ABOUT FLOODING AND CLIMATE CHANGE," ON *PBS NEWSHOUR*, JULY 27.

**"If you don't like mindfulness, don't force it. Do the things that actually help you feel better in the moments when you feel bad."**

**JESSE GOLD, MD**, ASSISTANT PROFESSOR OF PSYCHIATRY AND DIRECTOR OF WELLNESS, ENGAGEMENT, AND OUTREACH IN "HOW CAN I TELL IF I'M DEPRESSED OR BURNED OUT?" IN *THE NEW YORK TIMES*, AUG. 23.



"A second common reason why people pursue an MBA is because they're pivoting. Right now, especially, there are lots of people who are actively pivoting in their lives and in their careers, as they've gone through the disruption of COVID."

**ANDREW KNIGHT**, PROFESSOR OF ORGANIZATIONAL BEHAVIOR AND VICE DEAN FOR EDUCATION AND GLOBALIZATION, IN "THE VALUE OF THE MBA, ACCORDING TO A DEAN AT WASHINGTON UNIVERSITY'S OLIN BUSINESS SCHOOL" IN *FORTUNE EDUCATION*, AUG. 18.

A49 MUD 714 Global Urbanism Studio

# Focusing on urban issues

Master of Urban Design students travel the world to deepen their understanding of issues facing cities.

A sudden downpour on a Bangkok riverboat tour sent members of the “Global Urbanism Studio” into action, pulling down the canvas sides of the boat for shelter.

“It happened all at once and was a fast moment where everyone worked together to ‘batten down the hatches,’” says **Rachel Stagner**, a student in the studio and a member of the 2022 Master of Urban Design cohort. “That is a moment I won’t forget.”

Working together to deal with the force of water was a focus of this year’s course. The 20 students in the studio examined the ways people live with and try to control water while gliding through Bangkok’s canals on the boat tour, winding along a river in the Thai highlands on a 100-year-old train, and planting mangrove trees in knee-deep mud.

The 13-week “Global Urbanism Studio” is the capstone course in the three-semester Master of Urban Design (MAUD) program and is also open to other master’s degree students in the Graduate School of Architecture & Urban Design, part of the Sam Fox School of Design & Visual Arts. Each year, the course focuses on an urban issue — such as water mitigation, open-air city markets or pandemic resiliency — in an international city or cities, exposing students to urban issues and systems that don’t necessarily exist in the U.S.

“It’s an opportunity to reconsider our expectations,” says **Jonathan Stitelman, March ’11, MAUD ’11**, studio lead and senior lecturer in the Sam Fox School. “I hope students see that there is no one answer when you’re designing a city.”

Since 2008, students have analyzed Tokyo; Johannesburg, South Africa; Dubai, United Arab Emirates; Kampala, Uganda; Mexico City and Tijuana, Mexico; Singapore; and Hong Kong.

The Thailand visit was the studio’s first trip after two years of virtual travel. Stitelman says the pandemic created an opportunity for him to rethink the studio’s structure with **Derek Hoeflerlin**, associate professor and chair of landscape architecture and urban design. As a result, students spent more weeks this year doing on-the-ground research. They were guided by boat, train and car through Thailand by **Danai Thaitakoo**, a lecturer from Chulalongkorn University in Bangkok, who told them that 21st-century urban designers must work with natural

systems in mind and recognize the fluidity of life along the river. And **Kotchakorn Voraakhom**, a landscape architect and Bangkok native, led students through her public space projects that mitigate flood risk. She is currently a designer-in-residence at the Sam Fox School.

Then the students formed teams to address five problem statements (see sidebar at right) in a workshop format designed to confront urban problems and predict future scenarios. Students from Chulalongkorn University joined WashU students to delve into these questions.

After studying rivers and other water issues for a month in Thailand, the students took a weeklong trip from New Orleans to St. Louis to study the same issues on the Mississippi River. Led by Hoeflerlin, students visited the Army Corps of Engineers Designing With Nature research group and saw significant water-control infrastructure along the lower Mississippi.

“New Orleans and Bangkok made so much sense as sister cities,” Stitelman says. “They’re both built in a delta. They’re both having subsidence issues. They both have coastal flooding and coastal erosion. They’re both historic places.”

During the studio’s last six weeks back in St. Louis, students reflected on what they’d seen and created designs based on the problem statements they addressed in the workshops.

The travel experiences proved illuminating.

“Just to see the incredible urban context in Bangkok and how water has shaped the identity of the city was instructive,” Stagner says.

“I think the most valuable aspect was the comparison of how the Mississippi River and the Chao Phraya River in Thailand have been influenced by humans through time,” says **Weicong Huang**, also a member of the 2022 MAUD cohort.

The trip, Stitelman says, was the first year of a probable multiyear engagement with Thailand — similar to a previous focus on Johannesburg.

After teaching the studio remotely for two years, Stitelman enjoyed exploring the world again. “It’s been awesome to have our classroom on the road,” he says. “I think those are some of my favorite moments of teaching, when you realize: ‘Oh, I’m in absolutely the right place right now.’”

■ JULIE KENNEDY, MA ’22



Photo: Shutterstock



Photos (bottom row): Courtesy Jonathan Stitelman



**'GLOBAL URBANISM  
STUDIO' WORKSHOP  
PROBLEM STATEMENTS**

**URBAN MEDIATOR**

Bangkok (and New Orleans) sit between coastal and upland forces. How can the upstream and downstream areas be designed to increase resilience for local communities AND communities along the river?

**LANDCOVER**

How can the transition of landcover from pervious to impervious be mitigated?

**POWER & AUTHORITY**

What alternatives are there to local and national power being expressed through hard infrastructure such as dams that attempt to control naturally fluid rivers?

**COMMONS**

The river connects countless communities. However, over the 20th century, many communities turned their backs to the river. How can 21st-century design treat the river as a common asset?

**SPIRIT**

The river has historically been the site for significant cultural and spiritual practices, often related to natural cycles of wet and dry. How can future designs recognize the cultural significance and centrality of living with water? What does that look like in a time of extreme global climate change?



## Spinning gold

Michael Loynd, JD '99, weaves a compelling tale of the birth of U.S. swimming and one overlooked athlete's role in it.

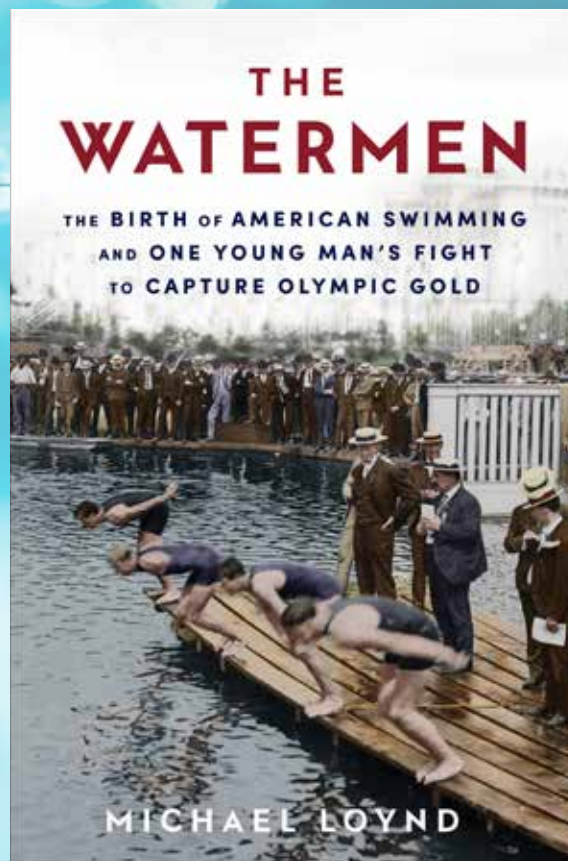
On Sept. 28, 2018, **Michael Loynd, JD '99**, stood proudly among WashU officials, local dignitaries and former Olympians as the five-ring Olympic "Spectacular" was dedicated near Francis Olympic Field.

As chairman of the St. Louis Sports Commission's Olympic Legacy Committee, Loynd had worked years to ensure the 1904 Olympic games in St. Louis received proper due, and the ring sculpture — which has become a must-see photo op for students and tourists alike — was the culmination of that effort.

In doing so, he applied a lawyer's tenacity to thoroughly understand every aspect of the 1904 games, including the athletes, nearly all of whom had been buried under 114 years of history. That is until Loynd learned of Charles Daniels.

Daniels won the first-ever gold medal for U.S. swimming in Forest Park. But he did so much more, winning seven medals (four gold, one silver, two bronze) over two Olympiads, a record that stood more than six decades. In doing so, Daniels invented modern Olympic swimming and originated the freestyle stroke — the stroke every kid who jumps into a pool for the first lesson learns. And Daniels did so with a white-collar criminal for a father and a devoted mother who did everything she could to give her son a normal life.

"I was focused on getting the rings to WashU," Loynd says. "I figured I might eventually write a paper or a short article about the athletes. And then I learned about Charles Daniels. The more



I dug into this guy, the more I was like, 'I have to tell his story.'"

The result is *The Watermen: The Birth of American Swimming and One Young Man's Fight to Capture Olympic Gold* (Ballantine Books, 2022), a compelling tale of how U.S. swimming became an international power in the first decade of the 20th century and the band of upstart American swimmers who made it so. It's also the story of one man's role in it all, and how he influenced generations to come.

Using that lawyer's tenacity again, Loynd painstakingly researched Daniels, not only online but at points throughout the U.S. To write about Daniels' childhood in Buffalo, Loynd visited Delaware Avenue, the street on which Daniels' family lived. Loynd made a trip to upstate New York to see the camp where Daniels learned to swim. He met Daniels' granddaughters in Wisconsin. He watched videos on swimming techniques, then got in the pool to try them out.

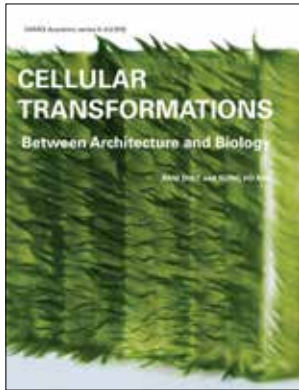
"I put my lawyer hat on for sure," Loynd says. "Because if you were presenting a case in court, you'd want to know every detail and anticipate every counterargument."

The result is a 344-page nonfiction work that reads like a novel, in the same vein as Lauren Hillenbrand's *Seabiscuit* and Stephen Ambrose's *Band of Brothers*. "I love this story," Loynd says. "It gives you a sense of empowerment. It gives you hope."

■ LESLIE GIBSON MCCARTHY

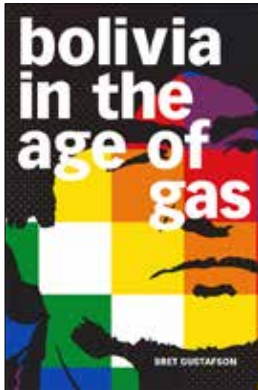


FACULTY



**Cellular Transformations: Between Architecture and Biology**  
**RAM DIXIT AND SUNG HO KIM**

Since 2011, Dixit, a biologist, and Kim, an architect, have co-taught the “Cellular Transformations” studio, which explores how advances in engineering and biology are influencing design production and implementation. The book collects research that has developed since the studio’s launch, with topics such as the architecture of skin, 3D printing and advanced cell analysis, bioremediation in Chernobyl and strategies for safeguarding health during COVID-19.



**Bolivia in the Age of Gas**  
**BRET GUSTAFSON**

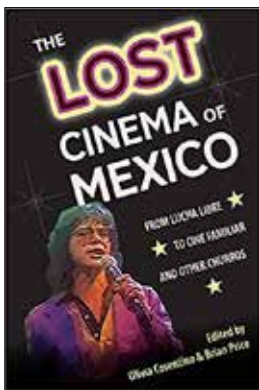
A winner of the 2022 Bryce Wood Book Award, Gustafson, professor of anthropology, explores how the struggle over natural gas has reshaped Bolivia, along with the rise and fall of the country’s first Indigenous government. The book shows how natural gas wealth brought a measure of economic independence, yet also produced political and economic relationships that contradicted aspirations for radical change.



**Louis I Kahn (rev.)**  
**ROBERT MCCARTER**

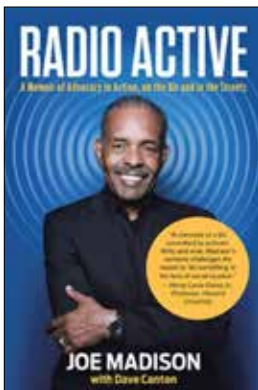
McCarter, the Ruth and Norman Moore Professor of Architecture, published this critically acclaimed monograph in 2005 to shed light on how Kahn redefined Modern architecture and became a fundamental source for architects and designers. This update features built and unbuilt projects of Kahn’s, including New York’s Four Freedoms Park, a project realized 40 years after Kahn’s death.

ALUMNI



**The Lost Cinema of Mexico: From Lucha Libre to Cine Familiar and Other Churros**  
**OLIVIA C. COSENTINO, AB '14**

The book challenges the misconception of Mexican filmmaking from the 1960s to the '80s, an era considered a low-budget departure from the artistic quality of Mexico’s Golden Age of Film. It reveals how a shift in Mexican culture, economics and societal norms affected the industry and offers a new model of the film auteur shaped by tension between highbrow aesthetics, industry shortages and national audiences.



**Radio Active: A Memoir of Activism in Action, on the Air and in the Streets**  
**JOE MADISON, AB '71**

*Radio Active* tells the story of decades of activism of Madison, a nationally known host of the SiriusXM show “Urban View.” It traces Madison’s life from his childhood in a segregated neighborhood in Dayton, Ohio, to interviewing Barack Obama. It also serves as a call to action and an eye-opening commentary on the racial divide that persists in America today.



**King’s Vibrato: Modernism, Blackness, and the Sonic Life of Martin Luther King Jr.**  
**MAURICE O. WALLACE, AB '89**

It was a voice that moved the world, and now *King’s Vibrato* examines exactly what it was that made Martin Luther King Jr.’s tone so special. Wallace has written a cultural history and critical theory of the Black modernist soundscapes that helped inform King’s vocal timbre. By mapping his speeches, Wallace presents King as the embodiment of the sound of modern Black thought.

**In**

POINT OF VIEW



**#WashU**

Photo: Danny Reise

# Anna Gonzalez: Helping students form a solid foundation of health

According to the World Health Organization, “Health is a state of complete physical, mental and social well-being, not merely the absence of disease or infirmity.” Vice Chancellor Anna Gonzalez discusses how Student Affairs is poised to assist students in achieving such a state.

Every university in the country is grappling with the issue of mental health. As we emerge from over two years of the COVID-19 pandemic, we continue to experience the aftereffects of isolation, physical distancing and being remote, which limited us from day-to-day in-person interactions. To address these challenges, WashU’s Division of Student Affairs engaged in a thorough strategic planning process. One of the five anchors that emerged from our planning is *Healthy Excellence*.

As a division, we are working with our community to embrace the concept that students will gain skills that form the foundation of a healthy life. Our aspirational statement is that success at WashU will not come at a cost to the student’s well-being and they will leave WashU as healthier individuals. How can we achieve this bold idea? Below are several ways that show our added investments thus far to ensure the well-being of our students.

## **Build a robust Health Promotion and Wellness Office.**

Having a designated office that provides interaction and educational tools for students to visualize what being healthy means for them and to help students understand the interconnections of the various dimensions of well-being is vital for the WashU community. We are fortunate to ramp up this office under the leadership of Arie Baker, who currently serves as the director of Health Promotion and Wellness. Health Promotion will implement proactive measures so that at the very beginning of their time as members of the WashU community, students will understand and be encouraged to practice healthy habits. When engaged in these areas proactively, students will develop skills for enriched lives for their time at WashU and beyond.

## **Invest in a variety of well-being platforms.**

During the 2021–22 academic year, WashU invested in Timely Care. Timely Care is a 24/7 virtual telehealth platform where students can speak to and receive support from well-being professionals. Today, students can continue to have access to Timely Care as well as use our on-campus and in-person professionals. This both/and approach rather than either/or allows students to have agency in the type of care they are most comfortable receiving and where and what time they feel most comfortable using these offerings. One of the things we learned during the height of the pandemic is that many individuals

were forced to see their health providers through virtual appointments. In some cases, this virtual accessibility is the new preferred platform.

## **Invest in educational platforms for faculty, staff and students.**

This academic year (2022–23), thanks to the generosity of John and Carol Hamilton, we are providing two virtual and in-person trainings on the topic of mental health. These trainings are available to all members of the WashU community. Question Persuade Refer, or QPR, focuses on how one can learn more about suicide prevention. Kognito is our other new tool that takes learners through simulations in order to build capacity to engage and help within their own comfort and knowledge level. The Hamiltons have also made it possible for Student Affairs to have a new mental health specialist who will provide outreach and educational sessions related to these platforms and topics for our community. (See pp. 50–51 for an article on the Hamiltons.)

## **Come together as a community.**

It is important for us to understand and invest in the various areas that fall within what I am calling the 10 dimensions of well-being. The Ohio State University originated the concept, which has been adopted by various institutions. The dimensions – physical, emotional, financial, social, spiritual, career, creative, intellectual, environmental and digital – are critical components of a student’s life. Helping WashU students learn how to achieve success and happiness, as well as how to deal with challenging situations in each of these dimensions, will enable them to lead healthier lives. I invite our schools and departments to partner with one another and with Student Affairs to support our students’ developmental growth and appreciation of these dimensions as it relates to their unique situations.

*So what would Healthy Excellence ultimately look like?* My two favorite times of the year are move-in and graduation. I love seeing the hopefulness and joy on the faces and in the expressions of our students and families as young people enter two important phases of their adult lives. My hope in the years to come is that every single student who arrived with the outlook of having the best years of their lives at WashU, will also say upon graduation that they are healthier and ready to lead lives of impact.

■ ANNA GONZALEZ

### **WHO**

Anna Gonzalez,  
aka “Dr. G.”

### **TITLE**

Vice Chancellor for  
Student Affairs

### **EXPERTISE**

Leading successful student affairs operations

Fostering diversity and inclusion in all aspects of student life

Focusing on first-generation students, immigrant students, equity and diversity, higher education policy and governance, student affairs administration, and higher education finance

# A vision of transformation

Washington University embarks on an inspired journey called 'Here and Next' to propel it to worldwide distinction *for* and *by way of* St. Louis.

Washington University is not a static institution resting on nearly 170 years of history. It's a place comprising thousands of inspired and inspiring minds working together to change lives through an unwavering devotion to teaching, research and patient care. And at this moment, the university is poised to drive even greater impact throughout our region, our nation and our world through a bold plan of action called "Here and Next," a globally informed, community-driven vision for academic distinction.

To create this vision for our future, more than 300 community members have been working together over the past 18 months, interacting with nearly 2,000 others, to understand university-wide perspectives and aspirations. Today, thanks to these collaborative efforts, the university is equipped to make sincere and profound investments in the diversity of our scholarship, our people and our region.

And it doesn't stop there; input and inspiration from the entire university community is going to be key to bringing the vision of "Here and Next" to life. The charge is to expound on our mission to act in service of truth through the formation of leaders, the discovery of knowledge and the treatment of patients in a world-class health system for the betterment of our region, our nation and our world. Through mindful actions, we aim to establish WashU and St. Louis as a global hub for transformative solutions to the deepest societal challenges.

**Together**, we will advance our excellence in research, scholarship and creative practice, affirming our existing areas of strength while displaying the agility to lead in emerging fields. To meet our deepest societal challenges, we must draw on our collective strengths and dramatically expand our research capacity.



Photo: Washington University



Photo: Jerry Naunheim Jr.



**Together**, we will attract and develop top talent by embracing the full diversity of lived experiences and by nurturing the aspirations of every member of our WashU community. The rate of change in the world is accelerating. As we draw on the hard-won knowledge of our disciplines, we'll empower each student to meet the challenges of a future yet unknown. We have so many revered educational programs at WashU; we will build on these proud traditions as we strive to create new legacies.

**Together**, we are WashU *in* St. Louis, *for* St. Louis and *with* St. Louis — in our research, education, patient care and operations. The innovations we develop here at home will be applied at scale across the globe, and our global work will inform practices in our region and in our nation.

WashU and St. Louis have so much to offer one another. We have the chance now, as 2023 beckons, to work together to advance the long-term success

of our city and state. To do so, we must lead by reflecting the voices of our community and developing trust with our partners.

Through the implementation of our vision, we aim to establish WashU as a leading model for how a university can partner with local communities for global impact — to set a new standard for world-renowned universities.

“I am grateful for the collaborative spirit of our work to date,” says Provost Beverly Wendland, executive vice chancellor for academic affairs. “As we move forward, my goal is for all members of our community to find their place in the vision for WashU’s future. Our first year of implementation is about bringing people together — offering connections within our community and maximizing our collective strength and potential.”

■ TERRI NAPPIER



Photo: Washington University

For research that sets a global standard

For the growth of every person in our campus community

For the good of every neighbor

 **Here and Next**  
WashU



To learn more about “Here and Next,” visit [hereandnext.wustl.edu](https://hereandnext.wustl.edu).

# OFFERING HOPE — AND A WAY FORWARD

FRED SSEWAMALA AND HIS RESEARCH TEAM  
HERE AND IN UGANDA ARE CREATING AND  
IMPLEMENTING POVERTY ALLEVIATION AND PUBLIC  
HEALTH INTERVENTIONS THAT ARE MAKING A HUGE  
DIFFERENCE IN THE LIVES OF CHILDREN, FAMILIES  
AND COMMUNITIES IN THE AFRICAN COUNTRY.

ELEVEN-YEAR-OLD FRED SSEWAMALA DOVE UNDER HIS BED. His mother had died when he was 3, and now soldiers with guns were crashing into his house. They shot his father and his stepmother, then his brother and his pregnant sister. Huddled under the bed with Fred was one of his playmates, a little girl age 8. Once the soldiers had killed everyone they could see, they dropped their automatic rifles to their hips and sprayed bullets everywhere, even under the beds, killing her, too.

“I was lucky,” Ssewamala says, “and I do not use the word lightly.”

He went to live with his aunt and uncle, an eight-hour drive from his village. In the new place, he told no one that he was an orphan — a word Ugandans use to refer, with distaste, to desperately poor children and often street beggars. His best friend in high school found out on graduation day, and he never told his girlfriend.

Encouraged by a bevy of aunties and impressed teachers, Ssewamala figured he had gotten past not having a mother. But when he received a scholarship to Makerere University — the oldest and most prestigious institution of higher education in Uganda, accepting only the best of the best — there was no mother or father there to burst with pride. Other freshmen were always opening care packages from their moms, but he received nothing. There were no parents beaming from the audience as he walked across the stage to accept his diploma. When he was awarded a graduate fellowship at Washington University’s Brown School, nearly his entire village came to the airport to send him off — but he had no mom to hug him breathless. “You cry on the plane,” he says quietly, shifting out of first-person to distance the ache.

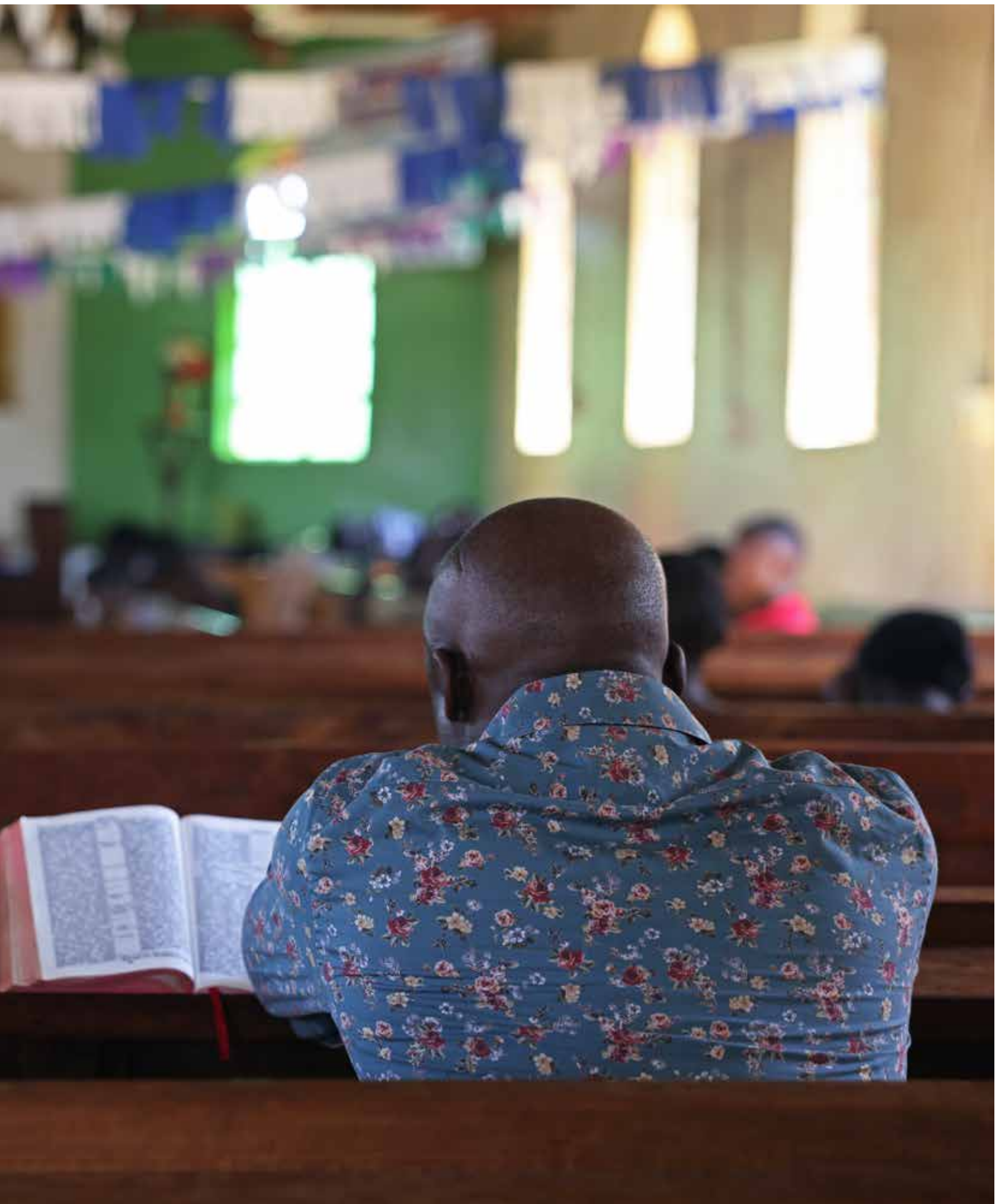
---

■ STORY BY JEANNETTE  
COOPERMAN  
■ PHOTOS BY THOMAS  
MALKOWICZ

---

During this summer’s trip to Uganda, Fred Ssewamala visited the church and school he attended as a boy. Education is paramount to Ssewamala and his work in the country. Young people there say, “If you want to make Professor Fred happy, tell him you want to go back to school.” He grins when he hears this, but he also turns serious: “What has made me who I am is education.”





As he studied social work, he realized it was about more than doing good; there was knowledge and theory behind it. Michael Sherraden, the George Warren Brown Distinguished University Professor and founding director of the Center for Social Development, and Mark Rank, the Herbert S. Hadley Professor of Social Welfare, both of the Brown School, taught him how to conceptualize, how to tackle social problems effectively, how to think about poverty and what breaks its spiral. “Don’t just give out cash,” he learned. “Partner with the communities and the families. Make sure there’s buy-in, and then give them the financial literacy and training that they need. Connect them to financial institutions. If you give someone money and they spend it on food, the bank still knows nothing about them. But if they invest, and you invest in their financial future, you’re enabling them to grow into productive members of society.”

Ssewamala earned a doctorate from Washington University in 2003 and immediately joined the faculty of Columbia University in New York, where he rose through the academic ranks to full professor. In 2017, he returned to WashU as the William E. Gordon Distinguished Professor in the Brown School. He is now associate dean for transdisciplinary faculty research, and he directs the International Center for Child Health and Development (ICHAD) and the SMART (Strengthening Mental health And Research Training) Africa Center. He also holds an appointment at the School of Medicine as a professor of medicine in infectious diseases.


But that is getting ahead of the story.

By the time Ssewamala made his first trip back to Uganda (in 2000, between receiving his master’s degree in 1999 and beginning his doctoral studies), some of the kids he’d looked up to in his village were dead of AIDS. The biggest shock was in Kampala, where he saw teenagers begging on the streets. So many had been orphaned by HIV that their extended families — Uganda’s only real social safety net — were overextended and had closed their doors.

These kids felt even more stigmatized than he had; many were HIV-positive themselves, since birth, and the rest were scorned because, obviously, theirs was “not a good family.” Cut off from respectable adults, they had to fend for themselves.

Ssewamala thought back to all the warm support he’d received. Only as an adult had he realized that many of his “aunties” were not blood relatives. “When they say ‘It takes a village’ here, people think that is a made-up thing,” he remarks, “but it really takes a village. That community, where you don’t belong to one family but to an entire village — that is what informs my work.”

He spent his doctoral years planning his first project: “That’s when I started leaning on what I had learned at WashU, because if those families were more economically stable, they would never have allowed those kids to be on the street.



A Ugandan member of the ICHAD team (right) discusses the Suubi4Stronger Families study with a mother in the Masaka District. This study aims to stabilize families financially and teach parents ways to improve the behavioral health of children ages 10 to 14.

That’s not Ugandan and, frankly, that’s not African. So if that social fabric is no longer strong, there must be a reason.”

The kids had no desire to live on the street, so he wouldn’t start with them. He’d go to their villages, find their families and tell them, “Look here, we are going to support you with those kids.”

“That’s how I designed my entire research enterprise,” he says now. “Meet people where they are and start infusing resources. You change the dynamics of the household. People start to think about the future differently. You create hope.”

The word for hope in Luganda (one of the major languages of Uganda) is *suubi*. To date, Ssewamala and his team have created at least 20 projects, intervening and studying what works. Among them are M-Suubi (for HIV-positive children in boarding schools





and their caregivers, teachers and clinicians); Suubi4Her (to keep girls in school); Suubi for Cancer (for young people living with HIV with suspected and confirmed cancer diagnoses); Suubi4Stronger Families (for young people with behavioral difficulties); Suubi+Adherence, Suubi+Adherence4Youth (also known as the MOST study) and Suubi4Stigma (all focused on young people who are living with HIV/AIDS); Bridges to the Future (for orphaned youth); and Kyaterekera (for economically vulnerable women).

Already, the work has changed the future for over 70,000 children and their families.

### BREAKING SEVERAL CYCLES AT ONCE

One variable unites all Ssewamala's projects: stigma. The stigma of being an orphan — which doubles when the cause is HIV. The stigma of

poverty. Of sex work. Of domestic violence. Of cancer. Of alcoholism. Of mental illness.

One problem underlies all the rest: lack of resources. Without money to pay for tuition, families marry their daughters off at 13, and sons wind up eking out a subsistence by tilling their parents' land. Without education, myths and superstitions persist, mental illness goes untreated, HIV rages on, and hopelessness sets in.

Thus, Ssewamala's studies nearly always include matched/incentivized savings accounts, peer mentorship, financial literacy classes and training that helps families start home enterprises — growing a market garden, raising chickens or livestock, beekeeping, knitting sweaters.

It's working.

"We were used to handouts [from overseas], something that was not sustainable," says



For a video by Thomas Malkowicz on ICHAD programs in Uganda: [source.wustl.edu/2022/12/offering-hope-and-a-way-forward/](https://source.wustl.edu/2022/12/offering-hope-and-a-way-forward/).



the Rev. Father Kato Bakulu, who now has parishioners waving their bank statements at him: “Reverend Father, is it true? We saved so much?!” For years, he says, “We had a mentality that poor people cannot save. When supported, even poor people can save for a noble cause.”

And though they own these accounts outright and know the money is theirs to spend as they choose, they are using it nobly: for their kids’ tuition.

John Ssentume, head teacher at Kyotera Primary School, has seen additional benefits: “Parents learned to write their names because they have to sign on the accounts,” and they also learned that “banks are not only for the rich.”

Growing up in the tiny village of Namulonge, located approximately 20 miles northeast of Kampala, Ssewamala never realized that he was poor. Why would he, when anywhere he walked, he could find a ripe mango or papaya to pick, a whole pineapple or stalk of sugar cane to nibble on. Agriculture is a little more organized now, but that sense of abundance remains. And because kids don’t have iPhones or even computers in their classrooms, they’re not restlessly comparing. The first time they feel poor, he says, is when reality clashes with what they expect — when they are told, for example, “Your parents did not pay tuition.” Even the government schools in Uganda charge a fee (and serve a cup of porridge for lunch). Yet school, most kids realize, opens possibilities.

## WHERE HIV BEGAN

Two-thirds of all the people living with HIV live in Sub-Saharan Africa. In Uganda, more than 170,000 adolescents live with HIV. Many were orphaned by HIV. Scientists believe the infection first broke out in the region around Lake Victoria — where Masaka is, and where Ssewamala chose to concentrate his projects. For years, the virus went undetected here, spreading like an oil spill, infecting men and women, spouses and unborn children. Despite years of public health education, “There are still people who believe mosquitoes can carry it from one person to the next,” he says ruefully. The fear of contagion is irrational (parents refusing to let their kids play with kids who are HIV-positive or those whose parents died of HIV, for example), and the moral disapproval is sharp, tainting even children who contracted HIV in utero.

Masaka is a region of contrasts. In small fishing villages at the lake’s edge, commercial sex work flourishes, and the fishermen insist that supplied condoms are too small or flimsy for their manhood. Elsewhere, the region is heavily Catholic and far from Kampala’s urban influences, so the families are strict and the young women are desired as brides.

Those contrasts have made HIV both more prevalent and more shameful. Yet as Ssewamala points out, “The same way COVID devastated low-income families, HIV has devastated low-income families.” But a higher HIV rate doesn’t mean people are more promiscuous than they are elsewhere; rather, it means that poverty doesn’t

allow them to access the same sort of education, preventive measures such as condoms and other protections, testing, treatment and care. Often, the children born with HIV are not even told they are infected: “They’re abundant with the disease,” he says, “but their caregivers fear disclosing it to them because they don’t have the answers if a child asks, ‘How did I get this?’”

Children’s caretakers often choose the farthest clinic for care, so no one will know them — but then they cannot find transport, so their clinic visits are not regular. At the start, they often “come late or want to hide and let the children come in alone,” notes Margaret Namuddu, clinic manager at Villa Maria Hospital. But with encouragement, that changes, and the young people stop shying away. “There is something ICHAD has put in them,” Namuddu says: “You know, I’m not the only one with HIV.”

By following kids over many years, ICHAD has made it possible for health clinics to stay in touch. “ICHAD might be looking for me,” the young people say. Consistent appointment times let them befriend and take courage from other kids at the clinic, and they also see responsible, respectable adults who are living well with HIV.

Economic empowerment also has made a huge difference: After infusing resources into these households and partnering with the families, “the children did better,” Ssewamala says. “We saw better adherence to medication and treatment. And we saw that the virus reduced in their blood.”

Another program focuses specifically on children in boarding schools because the schedules are rigid, and students who need to go back to their rooms for their HIV medication often cannot find a way. Or they cannot find a way to take the medication with food, so it makes them throw up and they stop taking it. Teachers sometimes resist accommodating them, too; one asked Ssewamala, “Why are you wasting your time with kids who are going to die?”

## THE ILLNESS NO ONE ACKNOWLEDGES

Ugandans might be willing to take medicine for mental illness — if they believed there were such a thing. Right now, few do. What we call mental illness is seen either as a bewitchment or, in the case of a child, a stubbornness that must be punished. There is no word for depression in the Luganda language, Ssewamala says. “Everyone would be depressed, frankly. Poverty, HIV, we have everything that would cause depression!” And what good would it do to rethink, some might say, when there are so few psychiatrists, therapists and treatment centers? Kids whose behavior is sufficiently extreme are pulled away from home and institutionalized. Otherwise, the behavior is simply punished, and adults reassure one another that the child “will outgrow it.”

A recent systematic review estimated that one in seven children in Sub-Saharan Africa struggles with a serious mental health issue. But again, there is stigma, and little by way of governmental policy, services or resources. The SMART Africa Center, based at the Brown School, looks at the influences of the state, nongovernmental organizations,

Fred Ssewamala and Proscovia Nabunya, co-directors of ICHAD, have been conducting research in Uganda for decades, helping students regardless of background stay in school, including at this primary school where Nabunya had an office prior to the founding of ICHAD.

families, schools and community, exploring ways to offer and assess care. Using data from more than 2,400 Ugandan caregivers, the center found significant numbers of children with oppositional defiant disorder or conduct disorder — the risk heightened by the death of parents, large family sizes and insufficient supervision.

SMART Africa also mentors young people to develop interest in psychiatric research and therapy, and trains community health workers to recognize and triage mental illness.

## THE PIPELINE

Ssewamala makes seven or eight trips to Uganda each year. When he comes back to the States, he doesn't miss boiling water even to rinse his teeth, sleeping in a tangle of mosquito netting that's curtaining off malaria, flipping a switch and no light coming on, or trying for hours to get online.

But he does miss the lush greenness (temperatures stay between the 60s and the 80s year-round) and, oh, the food! "Matooke, steamed green bananas. They take their taste from the gravy you dip them in. Having that one together with peanut sauce mixed with fish ... or chicken cooked the local way, in banana leaves ..." He also misses the 60 passionately engaged Ugandans who are doing field work and research for him, he adds, abashed to not have put them first.

What he has created is capacity, on the ground, independent of him, self-sufficient. And part of that capacity-building is a pipeline that will bring Uganda more and more highly educated professionals across many fields. He runs four different training programs, supporting master's, doctoral and postdoctoral students as they learn to research HIV, mental functioning and global health. "This," Ssewamala says, "is the generation that is going to change the country."

And the reason it will work is that he started when they were all much younger.

"You can't build capacity with doctoral students," he notes. "You have to start with high school students. You get them interested in research, in giving back to their community, and then you work with them, train them to do research. They go to the university, they come back to volunteer, and you encourage them to apply for a graduate degree. You don't train them to work for you; you train them to be good scientists on their own." He will ask them, "What do you want to do two years from now?" and if he hears, "I want to keep working for you," he slams back: "No!"

The saying among the young people in Uganda is, "If you want to make Professor Fred happy, tell him you want to go back to school." He grins at this, then turns solemn: "What has made me who I am is education."

By now, Ssewamala has mentored hundreds of young people. He rattles off name after name, tells stories that make your heart ache and then describes triumphant PhDs and faculty appointments around the world. His consistent

advice? "Believe in yourself. If anyone tells you something can't be done, tell them to get out of your way."

Nanyanzi Maltina, a former participant of ICHAD's first study, has heard exactly that for the past decade. "Every time I told Dr. Fred, 'This is what I want to do,' he never let me down, nor did he ever tell me, 'You know, that is impossible,'" she told WashU videographer Tom Malkowicz, who accompanied Ssewamala on his most recent trip to Masaka. "He would tell me, 'We are proud of you. You can make that!' I didn't want to listen to other voices that literally make noise when there was only one person who understood my circumstances and said, 'That is possible. Go for it!' So I have to pursue it, so he can be really proud of me."

When Maltina first joined an ICHAD study at 10 years of age, she told herself, "Now I must take all the opportunities around." So I made my heart open. When they asked me, 'How is this hurting you?' I told them everything." No one gasped. No one judged her. "They told me, 'Things are going to be well for you. This is not the end of life.' So I never dropped out of school at any moment."

Ssewamala first took an interest in Maltina because she was brilliant (she did a doubletake when he told her so — "Brilliant?"). But she had lost her mother, and money was a problem. "My worry was, if the project doesn't continue supporting her, she may be married off by age 13," Ssewamala recalls. He kept her involved, even funded her travel to a New York conference where she spoke about participating in ICHAD studies. And when she was ready, he hired her as one of the research assistants. Now she is in college, studying accounting and finance, and she says a law degree (her first interest, but too expensive) will come next. "We shall be out of our comfort zones to make you prouder," she promises Ssewamala, "and to make the entire world proud of us."

It is time the world took an interest. "Most of academia's work is in the global south," Ssewamala points out, "yet most of the authors are from the global north. How do we promote south-to-south collaborations, where people are documenting what works and doesn't work in their own countries?" He answered his own question with a new, precedent-breaking textbook: *Child Behavioral Health in Sub-Saharan Africa*. Co-edited by Ssewamala and two colleagues at the Brown School — Mary McKay, the former dean (now vice provost for interdisciplinary initiatives at the university) and Ozge Sensoy Bahar, research assistant professor — the book focuses hard on this understudied region and highlights the work of researchers who live and work there.

In another coup for academe, a network of partnerships has formed. Ssewamala is WashU's ambassador to his first alma mater, Makerere University, which joined Washington University's McDonnell International Scholars Academy network in 2020. Already five fellowships have been awarded to Makerere scholars, and five



"THIS IS THE GENERATION THAT IS GOING TO CHANGE THE COUNTRY."  
— FRED SSEWAMALA

research collaborations have been established. Other grants will provide for U.S. scholars to be trained to go to Sub-Saharan Africa and learn what is happening there, and for Ugandan scholars to come here and learn.

The cultures of the two universities are very different, so Ssewamala does a lot of smoothing. In Uganda, a professor is king; here, professors and grad students collaborate as equals. Here, a scholar has instant access to a wealth of research material; there, “it takes forever for them to find what they need” — yet they have invaluable context and direct experience. The sharing goes in both directions.

## PEOPLE WILL SURPRISE YOU

Proscovia Nabunya, now co-director of ICHAD, was in her second year at Makerere University when she met Ssewamala. He had asked a parish priest to help him find an undergraduate student (the only help he could afford) to coordinate his first research project in Masaka. Nabunya came highly recommended, so they met for breakfast in Kampala. When he described his project, her brow furrowed at the notion of a matched savings plan. “What is the benefit to you?” she wondered but did not ask; she wanted this job. “I’m in,” she told him.

When Nabunya accompanied Ssewamala to the Uganda National Council for Science and Technology office that had to approve his study, she could barely keep up. He had lived in the United States, and he walked very, very fast. In Uganda, people strolled. Arms and legs pumping, she finally caught up.

The project opened her eyes: first, to the importance of doing research, gathering usable data; second, because of her background, which was similar to that of the children they were studying. She, too, was an orphan. She lost her mother, a schoolteacher, at age 11, and her father, an Anglican priest, five years later. And then she learned from a family member that they had both died of AIDS.

Now, looking at the support the program offered, she thought, “I wish I’d had somebody to do that for me!” Matched savings accounts were making a difference: She heard kids making plans for their future, sounding bright and eager. “When you give people the opportunity,” she realized, “they will surprise you.”

When she was young, Nabunya overheard a relative tell her father, “I would rather spend money on fish than send a girl to school.” An uncle who thought differently paid her high school tuition. When it came time to sit for exams to go to the university, though, she knew she had to get a scholarship because he could afford no more tuition. “These exams are your father and your mother,” he told her, giving her a way to see that they could take care of her. “If you fail, you are done.”

She didn’t fail. She graduated and went on to earn a master’s degree in social work from Saint Louis University and a doctorate from the University of Chicago, and then she did postdoctoral work at New York University.

Now an assistant professor in the Brown School, she works closely with Ssewamala and is the principal investigator for Suubi4Stigma, to better understand the fear of contagion and the moral judgment and how to address it. As a teenager, she had been blissfully unaware of her own circumstances, thus free of that stigma. Now it shocked her.

“These are children!” she kept thinking. “And they remind me of me.”

Haunted by the pain they poured out to her, she decided to see if interventions could ease stigma not only for the children but also for their caregivers, who were automatically stigmatized just by proximity to them. To strengthen children against social disapproval and distancing, the program uses cognitive behavioral therapy — but in group form, because there are not enough therapists and there is not enough money. For caregivers, there is a support group for multiple families that lets them share lived experiences and coping strategies, and learn ways to improve communication and social support.

As she pores over the interviews, though, Nabunya is questioning her initial assumptions. “Is it stigma or shame? Here I was thinking, ‘Oh, it’s stigma — stigma, stigma, stigma.’ And I found that it is shame,” she says. “They’re between 10 and 14 years old, and they feel ashamed. It’s heartbreaking.” Nearly always, the HIV was inherited, not the result of their own behavior. Yet they have taken on a sense of unworthiness. “That tells me,” she says briskly, “that in my next study, I have to address issues of shame.”

## WHAT MAKES CHANGE STICK

So many programs have great outcomes until they end, and then bad habits snap back into place. That’s why a big part of Ssewamala’s work is not just designing interventions but appraising them afterward, measuring long-term outcomes. His two-part Bridges to the Future study used economic empowerment (matched savings, microenterprise, financial literacy and peer mentorship) to discourage kids orphaned by HIV from risky behaviors and encourage them to stay in school. The study carefully measured its own outcomes: Participants had more correct HIV knowledge, better prevention attitudes, better school performance, a higher rate of transition to post-primary schooling, higher savings, less food insecurity, more family enterprises, better self-rated physical health, less depression and hopelessness, and stronger self-concepts. In other words, his ideas are working.

Just how, through all his programs, is he making sure these new habits and goals stick?

Ssewamala’s first brainstorm, the matched savings account, changes an entire family’s outlook, builds trust in what they are learning and instills hope. Knowing that tuition can be paid, caretakers do not rush to marry off the girls or pull kids out of school to do labor.

Money alone is never sufficient, though. Families are taught financial literacy, and the new information meshes with cultural lessons they have already learned. “Especially in my tribe [the Baganda], they teach you to save for



“WHEN YOU GIVE  
PEOPLE THE  
OPPORTUNITY,  
THEY WILL  
SURPRISE YOU.”  
— PROSCOVIA  
NABUNYA



ICHAD, through its multiple studies and projects, aims to bring positive change throughout Uganda to communities, families and children, like these students at St. Raphael Bulinda Primary School in the Masaka District.

the future,” Nabunya explains. “If you plant corn, you save some seed for the next season. So we are building on things the family has already been taught and giving that extra push.”

The research assistants are people these families know, people they can relate to. “Get people to engage with people who are similar to them in several ways,” Ssewamala urges. On his last trip, he was tickled because the young people now “want to talk to ‘Proscovia’ even more than to me, because not only is she Ugandan, but she is closer to them in age and is a woman.”

“They do,” Nabunya agrees with a wide smile, “and I like it.” The first adult she ever came to know who had been to college was Dr. Fred,

and he changed her life. Now, she mentors anyone she can.

Community is strong in Uganda, and that helps, too. Parish priests helped Nabunya reinforce the teachings in that first program she coordinated. One woman offers this feedback after participating in Suubi4Stigma: “Since we have remained with the handbooks and have gained knowledge, I will continue sharing with my neighbors about the skills in making our families happy.”

Designing studies that span multiple years helps: “I want to meet you where you are and help you get somewhere you want to go,” Ssewamala says, “and this can’t be done in one day or one year.”



Repetition helps, as do frequent lessons and meetings, and monthly bank statements. “You are changing their way of thinking. You can’t just do something once and that’s it.”

Clarity and strong messaging help, so ICHAD held a workshop to help develop culturally relevant, age-appropriate signage and visual messaging that explains mental health and dispels stigma.

More than a decade of field work has shown Ssewamala and his team how to refine their interventions and their data collection, how to study their studies, how to find what works. Now he is sure: “We can make a difference in the lives of these young people.”

## Spreading hope and healing through action

**Suubi is the word for hope in Luganda** (one of the major languages of Uganda). The following list showcases some of the projects that Ssewamala and his team have created, intervening and then also studying what works.

**Suubi4Stronger Families**, stabilizing families financially and teaching parents ways to improve the behavioral health of 900 children ages 10 to 14, then testing the influence of each intervention and of combinations of interventions.

**Suubi+Adherence**, now on its second round, evaluating the long-term impact of economic strengthening intervention on HIV treatment adherence among youth living with HIV. The first round recruited 702 adolescents from 39 health clinics. They are being followed up on in the second round.

**Suubi4Stigma**, addressing HIV-related stigma among adolescents and their families. “I learned that even if I go through all kinds of stigma at school, I will not spend time crying, because I realize that it’s not only me living with the virus,” said one participant.

**Suubi+Adherence4Youth (MOST)**, focusing on the optimization of the Suubi+Adherence intervention to find the most efficient, affordable and scalable interventions to sustain adherence outcomes among youth living with HIV.

**Suubi4Her**, addressing HIV risk behaviors in over 1,200 older adolescent girls and exploring how to keep them in school.

**M-Suubi**, a multilevel, integrated intervention (with 840 adolescents living with HIV and their teachers and nurses) to reduce the impact of stigma on treatment outcomes.

**SMART Africa**, focusing on mental health in adolescents at the family and community levels in Uganda, Kenya, Ghana and South Africa.

**ACHIEVE**, addressing the research capacity gap in the world’s most vulnerable populations.

**Assessing the Feasibility of Economic Approaches to Prevention of Substance Abuse Among Adolescents**, funded by the National Institute on Alcohol Abuse and Alcoholism.

**Bridges to the Future**, now on round two, evaluating the long-term impact of economic empowerment on HIV risk prevention and care outcomes for 999 orphaned youth. The first round recruited 1,383 orphaned children in 48 schools. They are being followed up on in the second round.

**Child Mental Health in HIV-Impacted, Low-Resource Settings in Developing Countries**

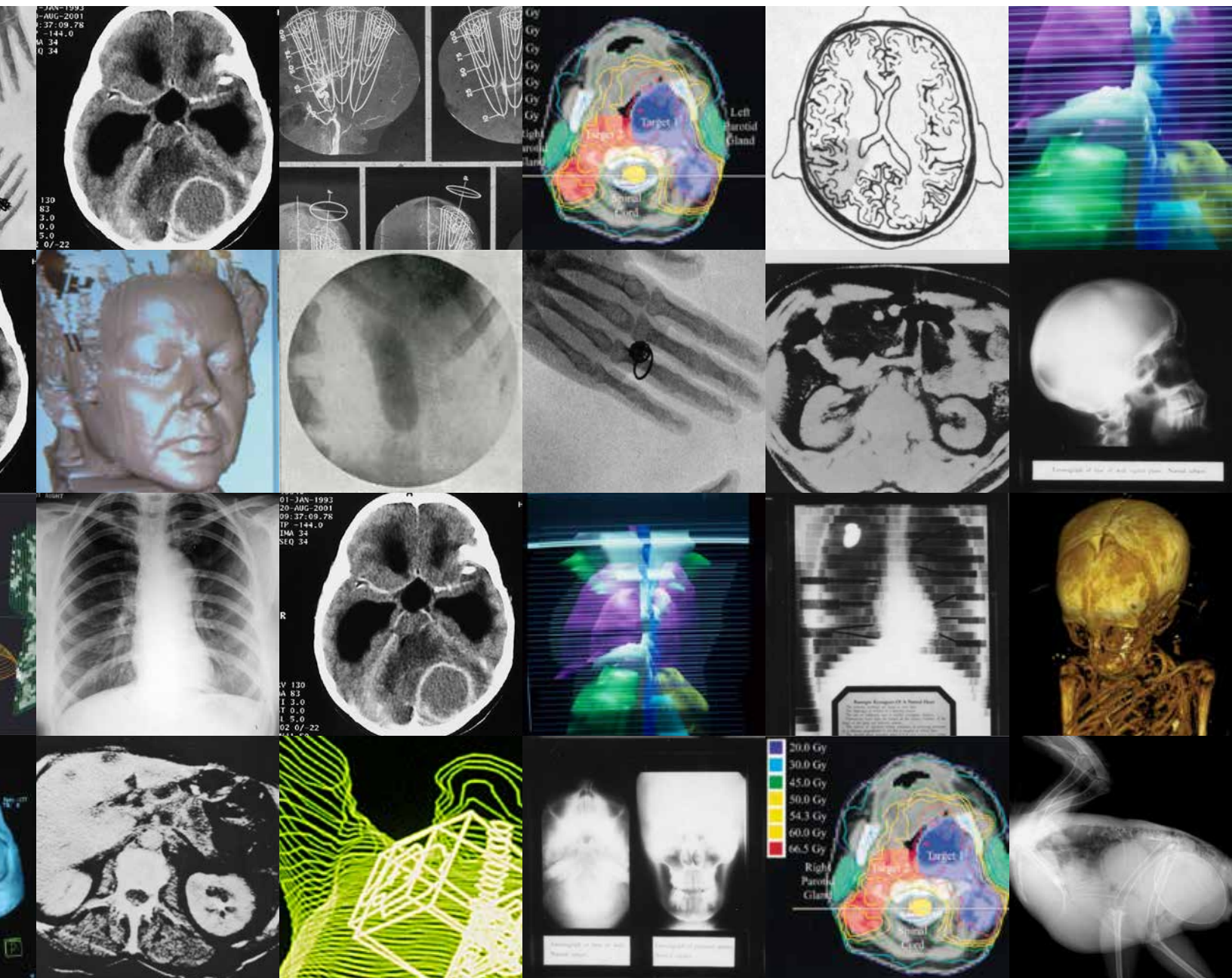
**Kyaterekera**, a combination intervention addressing sexual risk-taking behaviors among vulnerable women in Uganda. HIV risk reduction sessions, matched savings accounts, financial literacy and trainings on income-generating activities are provided to offer other income options to women and to reduce income from sex work.

**Obuvumu**, the Luganda word for courage, aims at improving health services for survivors of sexual violence. Often these women have unwanted pregnancies, physical injuries, exposure to sexually transmitted infections, chronic stress or low self-esteem.

**Optimizing Prevention Approaches for Children Reintegrating from Orphanages in Azerbaijan**

**Strengthening Child Health Research Capacity in Resource-Constrained Settings**

**Training Leaders to Accelerate Global Mental Health Disparities in Research**

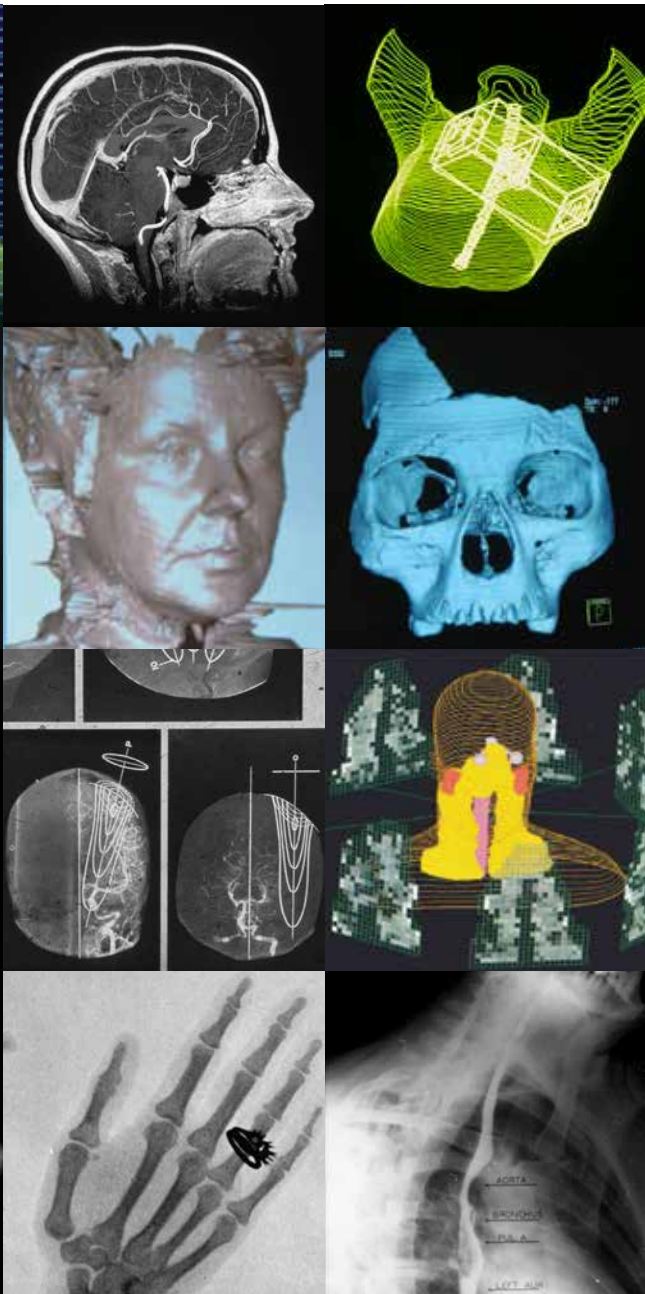


# *Pushing the boundaries of* **THE VISIBLE WORLD**

WASHINGTON UNIVERSITY  
ENGINEERS, SCIENTISTS AND  
PHYSICIANS TEAM UP TO ADVANCE  
IMAGING SCIENCE AND IMPROVE  
HUMAN HEALTH.

■ TAMARA BHANDARI AND BRANDIE JEFFERSON





The first medical diagnostic image was taken in 1896 using an X-ray — a phenomenon discovered just a year earlier. The X-ray provided a snapshot of suspected broken bones in the wrist of a young boy. This innovation — the wild idea that doctors could see inside a body — kicked off a transformation in medicine. Since the days of those first grainy, black-and-white images, imaging scientists have created new tools and techniques to visualize the human body in ever-more-intricate detail. Today, imaging is used for everything from mapping the network of connections within the brain to diagnosing cancer to monitoring the development of a beating heart.

Washington University physicians and researchers at the School of Medicine and engineers on the Danforth Campus have been at the forefront of imaging science for more

than 125 years. The university's first hospital was among the early leaders in adopting X-ray technology and teaching it to students. In the 1920s, Washington University researchers were the first to use X-rays with a contrast agent to view the gallbladder, making it safer and easier to diagnose gallbladder disease and paving the way for the development of contrast agents to image other organs.

In 1931, Mallinckrodt Institute of Radiology (MIR) at the School of Medicine was established to provide imaging services to support patient care and to develop the science of imaging. In the 1970s, research by Michel Ter-Pogossian, PhD, and Michael E. Phelps, PhD, at MIR led to the development of positron emission tomography (PET) and the first PET scanner. Their colleagues, Michael J. Welch, PhD, and Marcus E. Raichle, MD, developed tools and algorithms to use PET to study the brain. Welch developed an oxygen-based PET tracer to measure brain blood flow and metabolism, and Raichle captured some of the first snapshots of the brain at work. Welch also developed similar PET tracers for other parts of the body, laying the foundation for PET to emerge as a critical tool in biomedical research and clinical imaging. PET scans now are used worldwide to detect cancer, heart disease, brain disorders and other conditions. Ter-Pogossian also helped develop the first full-body computed tomography (CT) scanner, and Washington University became home to one of the first three in the world.

In recent decades, university researchers have continued pushing the boundaries of imaging science, developing new ways to use imaging to diagnose and treat disease as well as study biological structures, metabolism and physiology, and critical molecular and cellular processes. To name just a few accomplishments, WashU researchers created a new kind of microscope that enables rapid imaging of tens of thousands of neurons in 3D; developed investigational high-tech goggles that, when used with a special dye, illuminate cancer cells to help surgeons identify and remove all cancerous tissue; created a new imaging modality that combines ultrasound with near-infrared imaging to diagnose breast and ovarian cancers, a technique that is now in clinical trials; and applied deep machine learning to salvage useful information from error-riddled images. And five years ago, the McKelvey School of Engineering, in collaboration with schools across the university, launched an interdisciplinary doctoral program in imaging science — one of only two in the United States to train the next generation of leaders who will push the field forward in revolutionary ways.

The following vignettes showcase some advances in imaging occurring now across WashU.

For more MIR milestones, visit [mir.wustl.edu/milestones](http://mir.wustl.edu/milestones).

**“IMAGING AND QUALITATIVE IMAGING ARE CRITICALLY IMPORTANT WAYS TO INDIVIDUALIZE THERAPY AND GET THE RIGHT TREATMENT TO THE PROPER PATIENT AT THE RIGHT TIME.”**

— RICHARD L. WAHL, MD, HEAD OF THE DEPARTMENT OF RADIOLOGY, DIRECTOR OF THE UNIVERSITY'S MALLINCKRODT INSTITUTE OF RADIOLOGY AND THE ELIZABETH E. MALLINCKRODT PROFESSOR

---

**PRETERM LABOR**

PROTECTING THE HEALTH OF BABIES AND PREGNANT WOMEN

About 1 million children worldwide die annually from complications of preterm birth. Those who survive are at risk of a lifetime of poor health, including learning and developmental disabilities, vision and hearing impairments, and problems with brain and lung function. Preterm labor has many causes, but one common feature is abnormal uterine contractions, says Yong Wang, PhD, an obstetrics and gynecology researcher and associate professor at the medical and engineering schools. “Understanding preterm contractions is the key to preventing premature birth and protecting the health of babies and pregnant women,” he says.

Inspired by electrocardiogram imaging of the heart, Wang invented electromyogram imaging of the uterus, which maps each contraction in 3D as an electrical wave passing over the uterus. Using this imaging, Wang discovered that contractions are of different types, and some types may indicate problems. Such imaging could be used during labor to help doctors detect — and treat — complications early.

With the aid of two grants from the Gates Foundation, Wang is working to make uterine mapping technology available worldwide. He has adapted the technology for resource-limited settings by replacing expensive MRI scans with ultrasounds, and wire electrodes with printed ones, and he plans to begin testing soon. Wang is also working with electrical & systems engineers Chuan Wang, PhD, an assistant professor, and Shantanu Chakrabarty, PhD, the Clifford W. Murphy Professor, both in the McKelvey School of Engineering, to incorporate ultrathin, soft sensors into a wireless, wearable system to monitor the uterine health of pregnant and non-pregnant women.

---

**ALZHEIMER'S**

PREDICTING DEMENTIA

Alzheimer's disease starts silently. Two decades or more before symptoms appear, people start sustaining small but relentless assaults on their brains. By the time confusion and memory problems emerge, their brains are severely — possibly irreparably — damaged. Washington University researchers are working on improving diagnosis and management of Alzheimer's by using brain imaging to detect the disease before symptoms arise.

In the early 2000s, radiologist Tammie L.S. Benzinger, MD, PhD, a professor of radiology at the university's MIR, pioneered the use of PET

brain scans targeted against the Alzheimer's protein amyloid beta to identify early signs of the disease. Recently, neurologist Suzanne Schindler, MD, PhD, designed an algorithm to use data from a single amyloid PET scan, plus a person's age, to estimate how far a person has progressed toward dementia — and how much time is left before cognitive impairment sets in.

PET imaging is powerful but not accessible to all. Dmitriy Yablonskiy, PhD, a radiology researcher and professor at MIR, has developed a novel way to extract evidence of subtle brain damage from more accessible MRI scans. This method can identify brain areas that are no longer functioning due to a loss of healthy neurons, an indication of Alzheimer's-related brain damage detectable before symptoms arise.

---

**RADIOTRACERS**

TRACING DISEASE

PET imaging can reveal subtle signs of disease undetectable by other methods. It relies on radioactive imaging agents, or tracers, that are injected, inhaled or swallowed, depending on the organ under study. When tracers find their target, they show up as bright spots on scans that can be measured, constituting a powerful tool for diagnosing disease, monitoring treatment effectiveness and individualizing therapy.

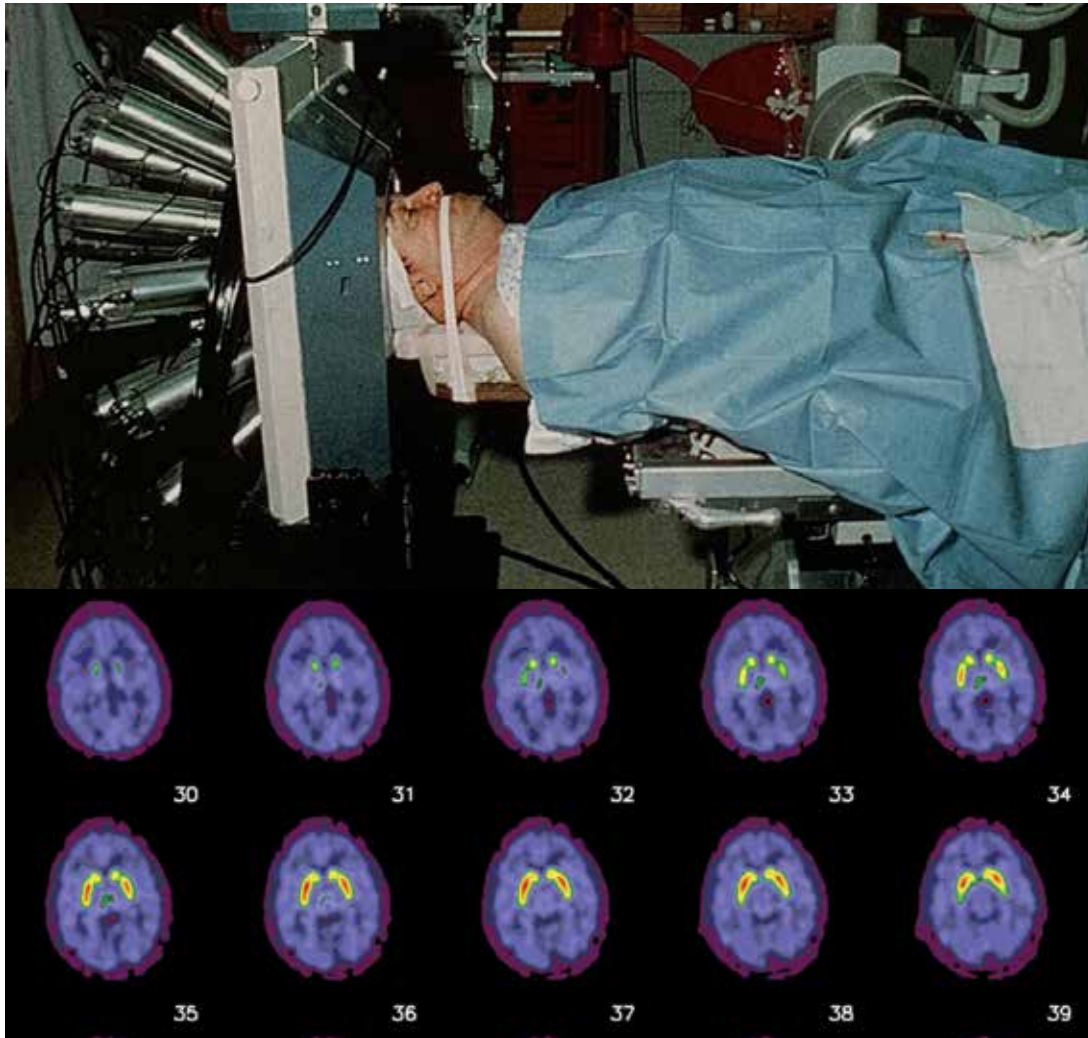
MIR, part of the School of Medicine, is one of the few research institutions in the country equipped to design, develop, evaluate and translate new PET tracers for use in people. MIR-developed tracers already in clinical use include one to determine cognitive function in patients with Alzheimer's, Parkinson's and other dementias (created by a team led by Zhude “Will” Tu, PhD, a professor of radiology) and another that detects unstable blood vessel plaques prone to causing heart attacks and strokes (developed by a team led by Pamela K. Woodard, MD, the Hugh Monroe Wilson Professor of Radiology). Tracers targeting many aspects of inflammation — a complex process that plays a role in a variety of conditions — are under development at MIR for multiple sclerosis, atherosclerosis, liver and lung injury, diabetes, cancer, rheumatoid arthritis, inflammatory bowel disease and more.

---

**BIOPHOTONICS**

MONITORING THE BRAIN

Joseph P. Culver, PhD, the Sherwood Moore Professor of Radiology at MIR, uses light to peer inside people's heads. Recently, he used high-density diffuse optical tomography (HD-DOT) — a



(Left) A 26-probe helmet, affectionately known as the “Lead Chicken,” was built at the university’s Mallinckrodt Institute of Radiology (MIR) in the early 1970s. It represents one of the first steps toward the PET scanner. (Below) Red, yellow and green spots on a series of digital “slices” of a living 41-year-old woman’s brain reveal that the PET radiotracer [ $^{18}\text{F}$ ]-VAT has found its target deep in the center of the brain. The tracer was developed by researchers at MIR to detect early signs of dementia. This PET scan is normal, indicating a healthy brain. The colored areas would be smaller in the brain of a patient with dementia. (Credit: Zhude Tu, PhD, and Joel Perlmutter, PhD)

noninvasive, wearable, light-based brain imaging technology he invented in 2007 — to detect activity in the visual part of a person’s brain, and then he decoded the activity to determine what the person saw. Decoding vision is a step toward decoding language, and toward Culver’s ultimate goal of creating HD-DOT-based communication aids for people with disabilities.

Culver’s former trainee, Adam Eggebrecht, PhD, an assistant professor of radiology at MIR, is exploring the technology’s potential for preserving the brain health of hospitalized patients. Using portable bedside imaging units, he is undertaking feasibility studies involving infants either undergoing surgery or on heart-lung machines. The goal is to determine whether continuously monitoring the brain with HD-DOT can help doctors catch signs of failing brain health early enough to intervene and prevent permanent damage.

HD-DOT is a research tool now, but Eggebrecht and Culver are part of a team, including Jason Trobaugh, DSc, and Ed Richter, MS, both professors of practice in electrical &

systems engineering at McKelvey, to develop and commercialize wearable versions of the technology with the help of a Small Business Technology Transfer grant from the National Institutes of Health (NIH).

## PHOTONICS

### SWAPPING OUT ELECTRONS FOR PHOTONS

Traditional electronics rely on, well, electrons to transport information through a system and present it in the form of, say, a GIF on your cellphone. But electrons are fickle. They are affected by electromagnetic fields, or even other electrons.

Lan Yang, PhD, the Edwin H. & Florence G. Skinner Professor in the Preston M. Green Department of Electrical & Systems Engineering in the McKelvey School of Engineering, has moved on. Instead of using electrons, her field of photonics uses photons, individual packets of light, as the fundamental unit of information for everything from environmental sensors to communications relays to quantum computing.

**“IN ENGINEERING, WE ARE GIVING ALGORITHMS AND INSTRUMENTS THE POWERS OF QUANTITATIVE ANALYSIS AND DECISION MAKING. THE FOREFRONT OF IMAGING HAS MOVED BEYOND MAKING PRETTY PICTURES, REGARDLESS OF MODALITY. THE PHD IN IMAGING SCIENCE HAS AND WILL CONTINUE TO ATTRACT STUDENTS WHO ARE OPEN TO INNOVATING THE WHOLE OF IMAGING – FROM PROBING TARGETS AND MANIPULATING LIGHT TO DIAGNOSING DISEASE – IN NEW WAYS.”**

– MATTHEW LEW, PHD, ASSOCIATE PROFESSOR OF ELECTRICAL & SYSTEMS ENGINEERING

Photons don't interact with themselves, they're unfazed by electromagnetic fields, and they are faster – much faster – than electrons.

In 2018, Yang's lab took a drone-mounted photonic sensor to Forest Park. There, they became the first to successfully take an environmental measurement – temperature – using a wireless photonic sensor resonator with a special design, known as whispering gallery mode. In 2020, they took advantage of another special property of light to make another breakthrough.

Under some circumstances and with the right interference patterns, light can pass through opaque media. Her team devised a fully contained optical resonator system that can be used to turn transparency on and off. It can also slow the speed of light, giving people more time to send, edit, encrypt and recover communications.

Yang's team was the first to demonstrate that their resonators could detect and measure single nanoparticles, a potentially revolutionary technology for health care, thanks to this level of sensitivity, which could detect foreign substances or irregularities in much smaller amounts than is currently possible.

---

### **IMPROVING MRIs**

**MACHINE LEARNING SYSTEMS HELP MRI MACHINES DELIVER CLEANER IMAGES**

Phones, computers, cars and even doorbells are getting better all the time. And they aren't improving only because the hardware is getting better; the software, too, is driving innovation.

Work from the lab of Ulugbek Kamilov, PhD, assistant professor in the Preston M. Green Department of Electrical & Systems Engineering and in the Department of Computer Science & Engineering, is interdisciplinary by nature. And a machine learning system developed by Kamilov could allow other labs – chemists and biologists – to upgrade their standard microscopes to be able to create continuous 3D models from regular, 2D pictures.

With his second SciAlog award, Kamilov also continues to work on combining MRI technology with fluorescence imaging to provide neuroscientists the ability to see brain development in action, for better understanding of the genesis of neurodevelopmental disorders.

And for the anxious among us, good news! Kamilov has collaborated with faculty from the School of Medicine to develop software that improves an MRI machine's ability to deliver a clean image using less-than-perfect data from, for instance, a patient who doesn't remain absolutely still during a scan. Modern MRIs can be updated with this software as easily as a home computer.

A through line of much of this work is the ability to improve techniques using machine learning systems that can work with a limited amount of training data. Many of his algorithms can learn from the very samples they are trying to interpret. This could be of tremendous use in the field of personalized medicine, where the subject of each image truly is unique.

While it may seem fantastical that a computer can be trained on a thing to better understand that very thing, Kamilov has also begun to work out how it's possible that they do. (One project Kamilov is working on is applying these algorithms to the big data of fancy microscopes.)

---

### **ETHICS**

**USING AI IN IMAGING?**

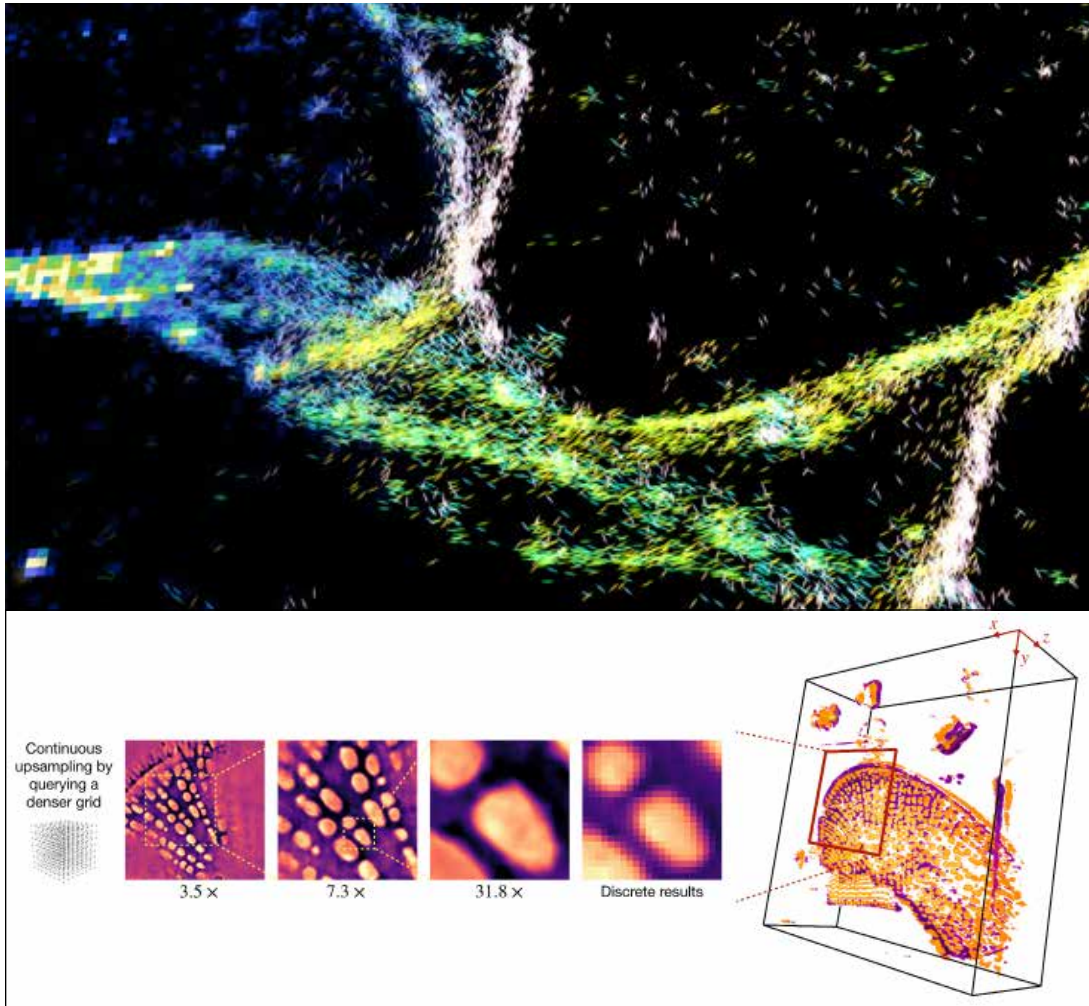
Unlike traditional photography, complex imaging techniques rely on more than light to create a picture; they also rely on interpretation – by a computer.

Artificial intelligence algorithms translate data gathered by an imaging device into a picture. However, there is a peculiar thing about AI: The way it performs this translation is inaccessible to even the people who developed it.

During training, for example, one AI looking for tumors was overclassifying malignancies. It turned out that there happened to be measuring rulers in most of the images it was trained with, so it was more likely to classify any image with a ruler as malignant.

Abhinav Jha, PhD, assistant professor in biomedical engineering at McKelvey and assistant professor of radiology at MIR, designs algorithms for use in imaging, but he also thinks about the evaluation and the ethics of depending on such opaque systems, particularly in health care. Recently, he led a team of computational imaging scientists, physicians, physicists, biostatisticians and representatives from industry and regulatory agencies to develop a framework for best practices for evaluating AI in nuclear medicine. The guidelines they proposed, referred to as RELAINCE guidelines, were published in the *Journal of Nuclear Medicine*.

He has also worked across a considerable academic divide, partnering with Anya Plutynski, an associate professor of philosophy in Arts & Sciences. They asked patients how they felt about AI in medicine. In his NIH R01 grant, Jha is working on developing methods that can be used to quantify the uncertainty of AI algorithms when used to estimate quantitative metrics. Jha, Plutynski and collaborators surveyed patients and found most respondents were OK with AI – not as a



(Left) A new technique developed in the lab of Matthew Lew uses a mix of machine learning and traditional computation to reveal the location and orientation of single molecules, giving researchers new insights into how larger structures — like those responsible for Alzheimer’s disease — develop and evolve. None of this information is available in standard super-resolution microscopy (as seen on the left). (Below) Ulugbek Kamilov’s research team has developed a machine learning algorithm that can create a continuous 3D model of cells from a partial set of 2D images that were taken using the same standard microscopy tools found in many labs today. The imaging system can zoom in on a pixelated image and fill in the missing pieces, creating a continuous 3D representation.

decision maker, but as a tool that physicians use to make final decisions. Their research was published in *Nature Medicine*.

### MULTIMODAL IMAGING PAIRING TECHNOLOGIES FOR BETTER CANCER DIAGNOSES

Gathering infrared light is a sensitive way to map out tumor functionality. Combined with ultrasound, tumor functional and morphology information can be used together to improve the accuracy of a cancer diagnosis. Quing Zhu, PhD, the Edwin H. Murty Professor of Engineering in biomedical engineering, has for decades been pushing the envelope when it comes to cancer diagnosis by taking advantage of both modalities at the same time.

To reduce breast biopsies, Zhu, who is also a professor of radiology in the School of Medicine, is collaborating with radiologists, led by Debbie Bennett, MD, associate professor of radiology and chief of breast imaging at MIR, and Steven Poplack, MD, professor of radiology at Stanford

Health. They use ultrasound to locate a tumor and optical sensors to obtain pictures of hemoglobin concentration, which is associated with cancer risk. Initial data show the technology can reduce benign biopsies by more than 20% while not missing any cancers.

On the ovarian cancer front, Zhu’s team is collaborating with a team of radiologists led by Cary Siegel, MD, professor of radiology, and a team of surgeons led by Matthew Powell, MD, professor of obstetrics and gynecology. They use co-registered ultrasound and photoacoustic imaging to accurately assess ovarian lesion risk and reduce unnecessary surgeries.

Zhu’s team is taking on colorectal cancer as well, collaborating with a team of colorectal surgeons led by Matthew Mutch, MD, professor of surgery. Together, they’re exploring the co-registered ultrasound and photoacoustic imaging paired with AI in assessing rectal cancer treatment response. In process now, Zhu’s team is testing the pairing of optical coherence technology with AI to improve the accuracy of colon cancer diagnosis.



# *Planting for the future*

**Arboretum curator Stan Braude shares his goal for the campus landscape as well as for those who enjoy it.**

■ THOMAS HUMPHREY, AB '22



Photo: Thomas Malkowicz

**I**F YOU WERE TO WALK AROUND THE DANFORTH CAMPUS AND ASK ANY STUDENT THE NAME OF THE ICONIC WASHINGTON UNIVERSITY CHAPEL, SAYS STAN BRAUDE, CURATOR OF THE WASHU ARBORETUM, “CHANCES ARE THERE’S NOT A SINGLE STUDENT WHO WOULDN’T KNOW THE NAME GRAHAM CHAPEL. My goal is similar: Three years from now, I propose that everyone on campus will know that we’re an arboretum, and everyone will have a favorite tree.”

Few are as qualified to achieve this goal as Braude, professor of practice in biology in Arts & Sciences, who has sparked the arboreal passions of hundreds of WashU students with his “Woody Plants of Missouri” course. Its success, he says, would be impossible without the incredible wealth of trees in the arboretum: “On campus we already have probably 75% of the native species that grow in Missouri, and within three years, we should have 100%.”

An arboretum is a bit like a living museum of trees. WashU’s campus has over 200 distinct tree species and more than 4,000 individual, registered specimens. It was awarded Tree Campus USA status by the Arbor Day Foundation and Level 2 accreditation by the ArbNet Arboretum Accreditation Program.

“Philosophically, the arboretum is under the same category as zoos and aquaria,” Braude explains. “Originally, they were all for entertainment, but nowadays they share the same three missions as a university: education, research and service to the public.” In his new role, Braude will oversee these aspects of the arboretum, along with tree selection.


Tree health and maintenance, however, remain under the purview of Chris Anderson, grounds and landscape design manager and horticulturist, and Cody Azotea, account manager at Focal Pointe Outdoor Solutions, who champions sustainable landscape planning, design and implementation for WashU. “Those two together have done more for the arboretum than I could ever hope to,” Braude says. “Those guys are truly like the Lorax, who cares for the trees in the book by Dr. Seuss.”

It is not an easy task. Unlike most arboretums, which are maintained in forested settings, the WashU arboretum is thoroughly urban. But with the challenges that come from this setting come unique research opportunities, Braude says. “From the beginning, we’ve been monitoring the growth of these trees, and we will be creating a database on their growth in an urban setting. This will be useful information for landscape architects planning to plant trees in comparable urban environs.”

This database also will serve as a useful resource for ongoing research into some of the less obvious effects of climate change. “One of the underappreciated problems of climate change is that species might no longer be in sync,” Braude says. If bees start to appear earlier in spring, for instance, they might miss later-blooming flowers, which might in turn miss out on pollination. The study of comparative species timing (phenology) is another important aspect of the arboretum.

Keeping ahead of the curve on climate change is an important element of the arboretum’s research mission; it will help the university maintain the campus landscape as well. A major focus has been planting “native adaptive” trees that, while not indigenous to the area, do well in the changing St. Louis climate.

A forest planted with the future in mind, WashU’s arboretum will provide shade, education and beauty to the WashU community for many decades to come.



*“... Three years from now, I propose that everyone on campus will know that we’re an arboretum, and everyone will have a favorite tree.”* – Stan Braude

Photo: Thomas Malkowicz





Photo: James Byard

### ***American Linden/Basswood/Tilia americana***

This majestic tree located in the northeast corner of Brookings Quadrangle is one of the oldest on campus. Growing happily for over a century, it is coming toward the end of its natural life, yet the arboretum staff is determined to do everything it can to save it: Cables now help the old tree to support its heavy branches. Also of note, several “scion” cuttings have been taken to grow new, genetically identical baby trees. It is a favorite not only among humans but also other lifeforms. The frequent buzzing crowd of bees that inhabit its branches inspired the origin of the colloquial name “basswood.”

### ***Ginkgo/Ginkgo biloba***

The iconic “Ginkgo Allée,” planted in 1927, is a controversial tree feature on campus: While the trees’ vivid yellow fall leaves create one of the most stunning views on campus, their smelly fruit is less pleasing to the senses. Odors aside, the trees’ elegant triangular leaves and unique branch shape indicate their status as “living fossils” — the last of an evolutionary lineage of trees that dominated in the time of the dinosaurs.



Photo: Thomas Malkowicz

***Ashe's Magnolia/Magnolia ashei***

One of the rarest magnolia species in the country, this Florida native is one of the five species of broadleaf magnolia on the east side of Rudolph Hall. The grove includes all the species of broadleaf magnolias able to grow in our region, a collection unparalleled in Missouri and a major contributor to campus tree diversity.

***Pathfinder Tree/Quercus alba***

The white oak outside Hillman Hall was propagated from a famous Illinois "trail marker tree," a tree purposefully bent over many years by native peoples to point to a specific resource. It was planted last year in a ceremony hosted by the Brown School's Kathryn M. Buder Center for American Indian Studies. The Buder Center is engaging with local Native American community members and even Native Nations with ties to the St. Louis region for their thoughts on possibly bending the tree in the future.



Photo: Thomas Malkowicz



Photo: Thomas Malkowicz

**Japanese Crabapple/*Malus floribunda***

The cascading blooms of the crabapple tree east of Olin Library and south of Cupples II are almost as iconic as the spring cherry blossoms that pepper campus in April and May. But beauty isn't easy; that's why campus arborists have dubbed the crabapple a "diva tree." Whether it needs extra watering, extra fertilizer or treatment for illness, the crabapple constantly depends on its human caretakers.



Photo: Thomas Malkowicz



Photo: Thomas Malkowicz

**Southern Red Oak/*Quercus falcata***

While it is maintained by campus arborists, the red oak on the South 40, just north of the Student Mail Services building, was around before any buildings were developed. The tree provides habitat to insects and birds, its surrounding rain garden provides drainage, and its respiration produces immense quantities of oxygen. It is a shining example of trees' health benefits to humans and the environment, and adds a slice of native biodiversity to the area.

# Next



Courtesy Photo



#### THE WORLD OF OUR WASHU ALUMNI

Alumni Profiles	44
First Person	49
My Washington	50
Alumni Activities	52
Class Notes	54
In Memoriam	60
Lasting Impression	64

#### Enduring art

The late **Noah MacMillan, BFA '11**, was a dedicated illustrator, and his boundless creativity outlives him through the art he left behind. During his career, his illustrations were published in many publications, including *The New York Times*, *Smithsonian Magazine*, *Sports Illustrated*, *Riverfront Times* and this magazine. And his large-scale pieces, including the one pictured here at the City Museum of St. Louis, remain as testaments to his talents. For more, see "In Memoriam," starting pg. 60.

# Creating the best of what life can offer

Michael Dorf wants to give patrons of City Winery an experience — one they relish.

As the founder and CEO of City Winery — a national chain of top-notch music venues that also offers fine dining with an emphasis on (as the name suggests) wine — **Michael Dorf, AB '84, BSBA '84**, imparts this bit of sage advice: “Indulge your senses.”

It's City Winery's corporate slogan as well as the title of Dorf's 2019 book chronicling his life and sometimes tumultuous times in the business world, which, prior to City Winery, included the founding of the Knitting Factory, an incubator of the underground New York music scene and, prior to the bursting of the tech bubble, an early titan in the realm of digital music.

The book, subtitled *Scaling Intimacy in a Digital World*, also provides some buttoned-down business advice: Embrace change. Keep it real. Find a balance.

“I certainly feel you should 100% believe in and want to utilize a product that you're selling,” Dorf says. “When I was 23, 24, I wanted that standing-room, beer-drinking experience,” which the Knitting Factory supplied. Years later, Dorf became a family man, and his wants and needs changed in a more sophisticated direction. When attending a concert, he wanted to go to a small venue with an excellent sound system. He wanted to sit and be able to choose his seat. He wanted the show to start at a predictable time so he could fit it into his busy schedule. And he wanted to be able to have a great dinner with excellent wine on the premises, so as not to have to rush from restaurant to concert venue.

Thus, City Winery was born, where patrons can see artists from across the musical firmament, such as Los Lobos, Bettye LaVette, Robert Fripp, Steve Earle, Marshall Crenshaw, Salif Keita, Joan Osborne and Suzanne Vega.

Dorf wants every City Winery concert to feel like a special occasion — “something that becomes a memory you want to relish,” he says.

“If you go to a show and it's one of your favorite artists, that can be very deep and powerful,” he continues. “And we see it as an enhancement of the overall experience when you can have really good food, and the wine is flowing, and you can be sitting with friends. Like, this is the best of what life has to offer. And that's what we're trying to create every night for people.”

So where did Dorf's taste and talent for entrepreneurship come from?

As it turns out, it's part of his DNA. Dorf hails from Milwaukee, where his grandfather founded the Milwaukee Biscuit Company. His father expanded the business considerably but sold it before it passed to a third generation, forcing Dorf to carve his own path.

Much of what eventuated originated at WashU. Dorf graduated in 1984, double majoring in business and psychology — which is a story in itself. At the time, the business program didn't allow double majors, so Dorf, in the spirit of rebellion, registered under his real name as a business major and, subbing in his middle name, under “Michael Ethan” as a psychology major.

“I was two people,” he says with a laugh. “And I have two diplomas.”

As a student, Dorf was part of concert committee Team 31, where he came into the orbit of some of the artists performing at WashU. He laid out the backstage deli spread for King Crimson; he carried an amp for Bono when U2 played its first St. Louis gig at Graham Chapel.

Those experiences — as well as managing his friends' band, Swamp Thing — laid the groundwork for what would become the Knitting Factory and City Winery. But Dorf found WashU's extracurricular programs to be of lasting value, too.

He was president of the Outing Club, which organized spelunking, canoeing and backpacking trips — things that continue to be part of his life. Each year, a group of his closest WashU friends get together for backpacking and rock climbing — a tradition of 32 years and counting.

“I think I'm living proof of how those things ultimately can become part of a career and your life,” he says.

And Dorf continues to walk it like he talks it, expanding his business (he expects to open City Winery St. Louis this winter) even as he continues to live his best life.

At the time of this interview, he'd just returned from a trip to Europe. Was it business or pleasure?

“Both,” Dorf says. “Everything in my life is always both.”

■ DANIEL DURCHHOLZ





**WHO**

Michael Dorf, AB '84, BSBA '84

**WASHU FAMILY**

Dorf met his wife, Sarah Connors, AB '85 (English and American literature), a film producer and post-production supervisor, at WashU.

They have three children: twin boys, 24, and a girl, 18.

**LOCATION, LOCATION, LOCATION**

Currently in eight locations, City Winery will soon open in Columbus, Ohio, and in a hot new location at City Foundry in St. Louis (winter 2022–23). Here, Dorf is pictured outside City Winery Hudson Valley.



@Michaeldorf

Photo: Meghan Spiro

# Helping students succeed

Albert Ip remains an important advocate of his alma mater in Hong Kong.

For Albert Ip, **BSAMCS '73**, coming to Washington University in St. Louis from Macau, China, for his undergraduate studies in applied mathematics and computer science was a life-changing experience that launched a distinguished career in international banking and hospitality investing. Now, with multiple appointments at universities in Hong Kong, the former WashU trustee (2017–21) is working to burnish Washington University's brand in Hong Kong so more students there apply and benefit as he has.

While WashU ranks ahead of many Ivy League schools, students from Hong Kong often elect to attend those East Coast universities when given a chance, Ip says. "I think it is a matter of name recognition, so I'd like to help build Washington University's brand in Hong Kong."

To that end, Ip, as an adjunct professor, has established collaborations between WashU and top universities in Hong Kong and Macau, trying to expose more students to WashU and thus raise its profile. The Chinese University of Hong Kong and University of Macau, for example, offer dual MS degrees with Olin Business School. At Hong Kong University of Science and Technology (HKUST), its engineering school signed a collaboration agreement with McKelvey School of Engineering in 2020. And Ip also connected the University of Hong Kong's top-flight medical school with WashU.

Not that Ip has anything against the Ivy Leagues: He earned MS degrees from Cornell and Carnegie Mellon universities. He contends the smaller size and faculty accessibility at WashU, though, can pay students big dividends. The willingness of "faculty members to counsel students, especially international students, propels my preference for WashU," Ip says.

"I had a great relationship with Professor Ervin Rodin, who taught in the Department of Applied Mathematics and Computer Science," Ip says. "Rodin (who retired in 2010 after 44 years at the university) inspired me and showed me how mathematics can open your mind, making you think methodically, which gave me the confidence to look at the data and theory and apply them to real life."

And apply them he did, serving in multiple roles at Citigroup, including managing director and corporate banking and transaction banking head; at Merrill Lynch (Asia Pacific) as managing director of investments; and at Langham Hospitality Investments as CEO. Ip has served on the boards of 11 listed companies in Hong Kong, and he still serves on five, including New World Development, Power Assets and Hutchison Telecom HK.

Still, for all his success, Ip remembers how he got there and spends much of his time helping students to succeed. His circuitous journey from Hong Kong to St. Louis and eventually back to Hong Kong, via stops in Pittsburgh, New York City and San Francisco, "inspired me to support students in career development," says Ip, "advising them on how to select the right companies for their career paths and using my business connections to help them get jobs."

Ip founded and chairs the Career Advisory Council at two business schools at City University of Hong Kong and at HKUST. "I am proud of that work, work first developed at WashU," Ip says.

■ RICK SKWIOT



#### WASHU ADVOCATE

Albert Ip, BSAMCS '73,  
Washington University  
Trustee, 2017–21

#### SERVES AS ADJUNCT PROFESSOR AND WASHU LIAISON

Chinese University of Hong  
Kong  
Hong Kong University of  
Science and Technology  
University of Hong Kong  
University of Macau

#### VISIT

Learn more about Ip's  
journey at [source.wustl.  
edu/2017/06/giving-back-  
better-future](https://source.wustl.edu/2017/06/giving-back-better-future).



# Teaching beyond the call

Andia Augustin-Billy hopes to see more faculty who look like her in the classroom. Until then, she's determined to lead the way.

In October 2021, **Andia Augustin-Billy, MA '09, PhD '15**, became the first Black faculty member to receive tenure at Centenary College of Louisiana in its 196-year history, a move that made her full of gratitude and reflection.

It was important because Black women are severely underrepresented among tenured faculty in the country. "There has to be a concerted effort to ensure diversity in academia," Augustin-Billy says. "I was at WashU when Michael Brown was fatally shot. I remember Chancellor Mark Wrighton and members of the administration like Adrienne Davis engaged in listening sessions and discussions. In my view, WashU did listen and attempt to implement meaningful change. Now, multiple centers exist around issues of diversity. I often speak of WashU as an example of an institution whose actions seek to match its vision statement."

Augustin-Billy pursued graduate studies at WashU upon learning that Julie Singer, professor of French in Arts & Sciences, was looking for bright students to build a program. "I relished my time at WashU," Augustin-Billy says. "I was actively involved in the French department, the Black Graduate Council and the Graduate Student Senate."

Augustin-Billy maintains her passion for making a difference as an associate professor of French and Francophone studies at Centenary College. She stands out among her peers for her unique perspective as a woman born in the predominantly Black country of Haiti.

Each fall, she takes incoming freshmen outside the classroom to learn about the Black experience in Paris. She also takes students to Haiti each year as part of her "Killing with Kindness" course, which examines the "unintended consequences of aid and how one could adopt a culturally sensitive approach."



Courtesy photo

"I ask students to bring books to build a library," Augustin-Billy says. "Books shaped me and saved me when I was in Haiti. I want to provide the opportunity to at least one student in Haiti to escape, to imagine and to free themselves through the power of literature."

For her, Haiti is a symbol of what it means to fight for freedom, rather than its poverty-stricken depiction in the U.S. media. "I grew up feeling free in my mind," she says. "I grew up feeling that I stood on the shoulders of amazing men and women."

As the second oldest of four children, she proudly stands on the shoulders of her missionary parents. She credits her mother for teaching her what it means to be resilient. "My mother personifies excellence, grit and determination," Augustin-Billy says. "She has gifted me the desire to teach. There is no other person whom I've admired, who's shaped me since my childhood, like my mother."

Now, as a mother herself of two young sons, Augustin-Billy is even more motivated to impact future generations.

"Being a mother has sharpened my sensibility toward empowering young Black men and women in particular," she says. "I want my children to grow up in a country where they know they belong, and it often starts with the classroom. Do you feel appreciated as a thinker, as a burgeoning scholar? Does your voice matter? These questions motivate me as I step into the classroom."

■ BRITNEY WHEELER

#### ALSO KNOWN AS

She is affectionately referred to as Dr. A-B on campus.

#### HOBBIES

"I love to read, but I also love to go on nature walks. I love to discover the world around me."

#### FAVORITE WASHU SPOT

"Downstairs in the basement of Eads. That's where I wrote my dissertation. I was so territorial about that space."

#### FAVORITE SCRIPTURE

"Philippians 4:13. 'I can do all things through Christ who strengthens me.' Whenever I'm feeling discouraged, or I'm feeling like 'Oh my gosh, this is too much for me,' it helps me put things in perspective. It helps stabilize me."



novels, including manga, black-and-white, Japanese comics.

Bayer's timing, it turns out, was perfect. Sales of comics and graphic novels rose 62% nationwide in 2021 — and continue to grow. "In my research," says Bayer, who earned her degree in art history in Arts & Sciences, "I discovered that there was nowhere in St. Louis that carried the unique combination of inventory I was looking for.

"We overlap with comic bookstores in that we carry trade comics, and we overlap with general bookstores in that we carry children's books," she says. But this niche inventory — graphic novels — she says, is unique for St. Louis, and it's becoming very popular with teenagers and young adults. Why?

"Maybe it's because of the 'multimedia-ness' of life now," she says. "To that demographic, graphic novels make sense in a way that doesn't translate to older generations. We get older people who come in who are like, 'I don't understand what's happening here.' They're confused that a whole store could be full of graphic novels and comic books."

But the word is spreading. The store, housed in a historic building in nearby Webster Groves, Missouri, is a visual feast and has become a community meeting place, hosting story events for children on summer days and local artists and authors at night. Last August, John Hendrix, professor and chair of the MFA in Illustration & Visual Culture program at the Sam Fox School of Design & Visual Arts, was a guest artist touting his new book.

Using the downtime of the pandemic, Bayer taught herself the business, taking an online course from the American Booksellers Association, then figuring out the financials and market shares to see if she could turn what had become her hobby into a bricks-and-mortar store.

"As a kid, I liked art and I wanted my own business," she says. "I was always starting something — a car wash, a cookie company." And then?

"Middle school happened," she laughs.

Spoken like a kid who's been there — and one who knows how to reach the ones who are there now.

■ LESLIE GIBSON MCCARTHY

## Graphic adventure

Betty Bayer started a business in the midst of a global pandemic — and the timing couldn't have been more perfect.

### WHO

Betty (Gibson) Bayer, AB '11

**POST WASHU:** Product consultant, museum educator, high school English teacher, youth coordinator at a library, two master's degrees

**ALL IN THE FAMILY:** Bayer met her husband, **Matthew Bayer, AB '11** (mathematics), freshman year in Dardick Hall. He's now project director of baseball development for the St. Louis Cardinals.

**WASHU IGNITED HER LOVE OF ST. LOUIS:** She remembers working on a Service First project during freshman orientation in August 2007, culminating with a trip to City Museum, which she still loves. "I moved around a lot as a kid. I've now lived here longer than I've lived anywhere else, so St. Louis feels like home to me."

At the start of 2020, **Betty (Gibson) Bayer, AB '11**, was a stay-at-home mother of two who had every intention of taking her recently earned master's degree in library and information science and finding a job. But we're all familiar with what happened next. By the spring, she found herself quarantining with a suddenly working-from-home husband, two young children and no prospects.

"It was pretty stressful," Bayer says. "I felt as if I was using only a tiny sliver of who I was." Until her mom snapped her out of it. "She said, 'Maybe you could use this time to create your own opportunities instead of waiting for them to find you,'" Bayer recalls.

Turns out, mom always knows best. By November 2021, amidst a pandemic showing few signs of letting up, Bayer opened Betty's Books, a bookstore that specializes in comics and graphic

# To the Moon and back

A few things come to mind when **Fiona Turett, BSME '09**, thinks about a “good day” at her job. She enjoys interacting with co-workers from different departments and figuring out the most efficient way to accomplish a task. And she loves a day spent training people, not only to help them, but to help her keep her skills current.

As someone who really likes problem-solving, Turett, who majored in mechanical engineering, recalls a meeting she recently led to develop some contingency plans.

The gist of the meeting? “When you have Orion, which is the vehicle that brings the crew back to Earth eventually, and the lander docked, and you have fire or depressurization, how do you keep the crew safe?”

“Working through creating plans for that, that was a great day for me,” she says.

Turett, who became a NASA flight director on Jan. 10, 2022, divides her time between supporting human spaceflight missions for the International Space Station and NASA’s Artemis missions, NASA’s program for returning to the Moon.\* Here’s how she approaches her work leading teams of flight controllers, engineers and professionals throughout NASA.

► **It’s interesting, the things that you don’t realize are a skill until you realize you don’t have them.** One of those, for me, was asking the right questions. A flight director is surrounded by a team of experts. We need to use that expertise if we want to be successful. So figuring out how to ask the right questions, to make sure I can do my job — putting all the pieces together into the big picture and making that integrated risk grade — took some practice.

► **My father is a mathematician, and he has books that he has studied and read for my whole life.** I realized that type of studying, that type of focus on a single problem, is not my strength. What scientists do — discover totally new things over time — was not as appealing as a career compared to

getting to do something where I get to see the results more quickly. Ultimately, the world I found myself in, which is not all engineering but operations, is very much about knowing a lot of different things at a shallower level than, for example, an astrophysicist would dig into. I like connecting the dots and doing the integration, so for me engineering was a better fit.

► **Apollo was never designed to stay.** Ultimately, the goal has been to figure out how to go back to the Moon, and someday to Mars, but to do it in a way where we could stay. We needed to learn a heck of a lot, though, before being ready to stay. I’m ready to land on the Moon. We’re going to do it soon.

► **I was involved in the Catholic Student Center.** A lot of the stuff Father Gary [Braun] talked about, working with other people, nicely, that is something I’ve gone back to my entire career. So much of what I do is teamwork-based; understanding how people operate and how to best work with those who operate differently has been incredibly valuable at every stage of my career.

\*Artemis I is the first test flight of Orion, the spacecraft that will eventually carry astronauts during future missions. At press time, the Moon mission was scheduled to take its first uncrewed flight in November.

■ BRANDIE JEFFERSON

**WHO**

Fiona Turett, BSME '09

**AIM FOR THE STARS**

Turett attended NASA Space Academy at age 13 and interned with NASA for three summers before and during college.

**CAREER TRAJECTORY**

- Safety and Mission Assurance for the final nine space shuttle missions
- Flight controller and instructor for the space station’s Motion Control System
- Control system lead for both crew training and real-time operations on Expedition 56
- Lead for operational integration of the Gateway outpost that will orbit the Moon and the lunar Human Landing System programs
- Flight operations lead for Gateway’s Power and Propulsion Element
- Flight operations integration manager for Gateway

**FLIGHT DIRECTOR CALL SIGN**

*Mosaic* — representing her past and future, and to honor all the pieces that make her whole. It also honors her parents, who are mathematicians.



Photo: NASA/Robert Markowitz



Photo: Tony Avelar Photography

# Student champions

WashU parents Carol and John Hamilton (at left) help create a holistic learning experience for WashU students by supporting scholarships, Athletics, mental health programs and more.

To hear Carol and John Hamilton praise Washington University in St. Louis, you might think they were born and bred WashU Bears. Not so. But they are among WashU's biggest fans.

John grew up in St. Louis — a stone's throw from campus. Generations of his family have attended and generously supported Washington University. His parents and maternal grandparents were graduates, his brother earned a law degree, and his uncle is an alumnus and emeritus trustee.

When John and Carol's eldest child announced his preference for WashU over their own alma maters on both coasts, they were all in. One by one, each of their three children left the Bay Area for an unmatched education in the heart of the Midwest — at WashU.

Since the moment their eldest matriculated, the Hamiltons have continued to choose WashU both philanthropically and as volunteers.

In addition to endowed scholarships in engineering, the couple has made other meaningful gifts to WashU Athletics and student health and well-being programs to enhance the student experience. They have both served as chairs on the Washington University Parents Council and are deeply engaged in cultivating a vibrant WashU community among Bay Area alumni and parents. Most recently, they established a fund to advance university faculty and staff's mental health awareness and responsiveness to students struggling on campus.

## WHY DID YOUR FAMILY CHOOSE WASHU?

**John:** For me, growing up in the community, I see St. Louis as a special place. It has its challenges but is rich in culture and strong in values, values I grew up with. WashU is part of that. Chancellor Andrew Martin and his team are exceptional. Every person we have worked with at WashU has been on some level selfless. The openness to collaboration is Midwestern. It permeates the whole organization.

**Carol:** The archetype of the WashU leader is warm, brilliant and open. The handling of the pandemic is a great illustration of the warmth that WashU exudes. Associate Vice Chancellor and Dean of Students Rob Wild hosted live town halls for parents during the summer leading up to and throughout the pandemic year. The institution was not afraid of difficult questions and criticism.

Parents don't always know what's happening on campus, and in times of crisis, they need information to establish trust. WashU was willing to allow that dialogue and to listen and explain and be there for the parents — and our children. It was extremely impressive for a world-class institution to have that level of direct connection.

## WHY HAVE YOU SUPPORTED THE WASHU STUDENT EXPERIENCE?

**Carol:** Through the experiences of our kids, we know how important everything outside the classroom is — from residential life through health and wellness to athletics. Along the way, I learned a lot about WashU's resources and outreach, especially in support of student well-being.

I became interested in how students succeed and what they need to succeed, and I saw WashU really wanting to build out a holistic program. It seemed like WashU was a place where, as parents, John and I could make a difference.

**John:** I have always felt very strongly about supporting education so that students can pursue what they truly love — whatever makes their socks go up and down. Young people start finding their roads in college and, as they try out new things and stretch themselves, so many of them need help. They need support systems. Carol and I try to make a difference by strengthening those systems in Athletics, in mental health resources and in community involvement. We want to help support the development of future leaders.

## WHAT IS THE VALUE OF A WASHU EDUCATION?

**Carol:** At WashU, I see so much willingness to help. The students are helping each other. They're in study groups. They're collaborative. They're kind. Admissions does an outstanding job in cultivating this community.

And it's not just the kids. It's reflected in the leadership from the top down — the warmth and the collaboration, the interest in reaching out, combined with unsurpassed academic excellence. The WashU community transforms our students, and we parents are beneficiaries, too. We get to connect with all the remarkable parents of these amazing kids!

**John:** Let's just say this: We hope our *grandchildren* get to go to WashU, too!

■ GRIZELDA MCCLELLAND, MA '03, PHD '13

# 50 years — and change

Three reunion classes come together for a singular celebration.

For Washington University alumni, 50th reunion is a once-in-a-lifetime occasion. The pandemic, however, complicated this milestone for graduates from the Classes of 1970 and 1971. After two years of pivots and patience, their special moment finally arrived in May, when the university hosted an epic in-person 50th reunion celebration for the Classes of 1970, 1971 and 1972. The weekend was jubilant, nostalgic and, most important, well worth the wait. Here, alumni from each class reflect on their alma mater and the experience of returning to campus 50 years — give or take — after graduating.

## FEELS LIKE HOME

Unfamiliar surroundings, new people and greater freedom make the transition to college an adjustment for almost every teenager. **Moon Nahm, AB '70, MD '74**, arguably felt these changes more acutely than his peers. Along with his parents and older sister, Nahm emigrated from South Korea to St. Louis in 1965. Then a high school senior, he was immediately thrust into the college application process. With the help of his counselors, he gained admission to WashU.

Nahm was still acclimating to life in the United States when he entered WashU. It was as if he had to learn two languages — English as well as American culture and customs. Nahm recalls petitioning for his native Korean to count toward the university's foreign language requirement and his confusion at being asked to bring a "blue book" to an art history exam. "Everything was still new," he says.

But buoyed by his WashU professors and classmates, Nahm excelled in his first year. Money was tight for his family, so he wrote to the financial aid office about the situation. To his surprise, the university offered him a scholarship. Though the award was small, it had an incalculable effect on him: WashU believed in his potential, and he began to believe more in himself.

Upon earning a bachelor's degree in physics, Nahm stayed at WashU for medical school. He has lived in Birmingham, Alabama, for decades now, but his alma mater retains a special place in his heart and mind. "Whenever I think of WashU, I think of home," Nahm says. "The school is my home."

After a two-year delay, he made his way back to campus with his wife for 50th reunion. Although many of his closest friends couldn't attend the in-person festivities, he met and reconnected with others. He also spent quality time with his sister and brother-in-law, both of whom are alumni. "It was magical," he says of the weekend. "It felt like traveling back in time to my happy youth."



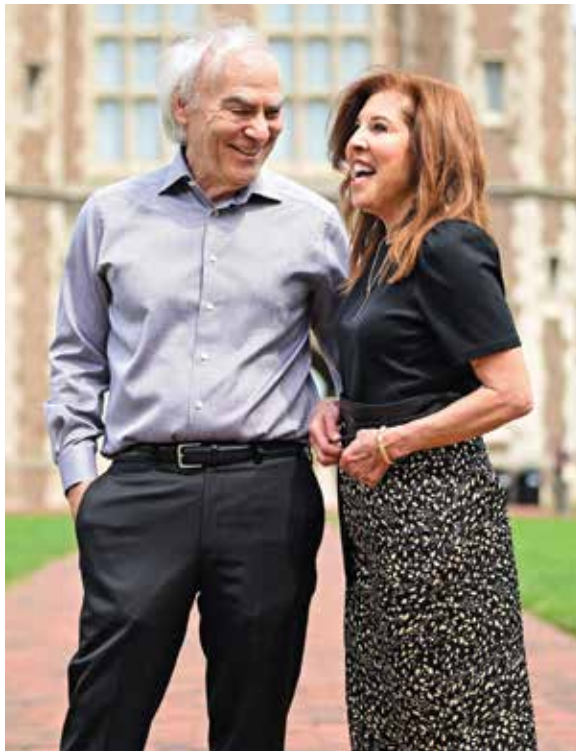
## BACK TO THE BEGINNING

On a perfect blue-skied Friday in 1968, **Gail Brody Klein, AB '71**, spotted **Roger Klein, AB '71**, lounging in the Brookings Quadrangle after class and went to join him. The two were chatting in the sunshine when a photographer from the *St. Louis Post-Dispatch* approached and asked to snap their picture. Captioned "when spring arrives on campus," the photo appeared in the next day's paper.

Married for five decades now, the Kleins returned to that cherished spot in the Quad during their 50th reunion. "We both knew the exact patch of grass where we were sitting in the photo," Gail says.

The couple has attended many reunions, but this year's celebration felt particularly monumental, even a little bittersweet. "You reach a certain age when it becomes important to go back and remember other parts of your life," Roger muses. "We were barely 18 years old when we met at WashU. It was a time of real innocence for us." After graduating, he became an attorney, and she worked for several years as a teacher before raising three children at their home outside Washington, D.C.

As undergraduates, Gail focused diligently on her studies and graduated magna cum laude, while Roger juggled numerous extracurricular activities. He was elected Student Union president and appointed a student representative to the Board of Trustees. He joined Phi Sigma Delta fraternity and was a member of Thurtene junior honorary. Fifty years later, he and Gail channeled that participatory energy as part of the Class of 1971 Reunion committee. Roger delivered a speech



Far left: Moon Nahm, AB '70, MD '74, proudly sports his 50th reunion medallion during the ceremony in Graham Chapel. Middle: Roger and Gail Klein, both AB '71, returned to the Quad during reunion weekend. Near left: Jonathan Weaver, BSBA '72, celebrates Commencement with his grandson and new alumnus, Trey Davis, AB '22.

at the medallion ceremony in Graham Chapel, and the couple led their class procession onto Francis Olympic Field during Commencement. They even squeezed in a dinner at Tony's, their favorite special-occasion place in St. Louis, between on-campus commitments.

Of the whirlwind weekend, Gail says, "It brought back a lot of memories of our youth and falling in love. Roger and I were happy to be there and to revisit the place where our life together began."

### DEFINING HIS MISSION

A native of Rockville, Maryland, **Jonathan Weaver, BSBA '72**, was one of only a few Black students in his entering class. But it didn't take long for him to find community and purpose at WashU. Several months into his first year, an altercation between the university police and a Black graduate student prompted members of the Association of Black Collegians to occupy Brookings Hall in protest. Weaver decided to participate and planted himself in the accounts payable department for five days.

For Weaver, the experience was pivotal. "I really came to understand the importance of fighting for justice, equity and fairness," he says.

He went on to become a campus leader, serving as president of the newly reorganized Association of Black Students and as a representative to the university's Board of Trustees. During his junior year, a fellow student introduced him to Operation Crossroads Africa, a nonprofit sponsoring community

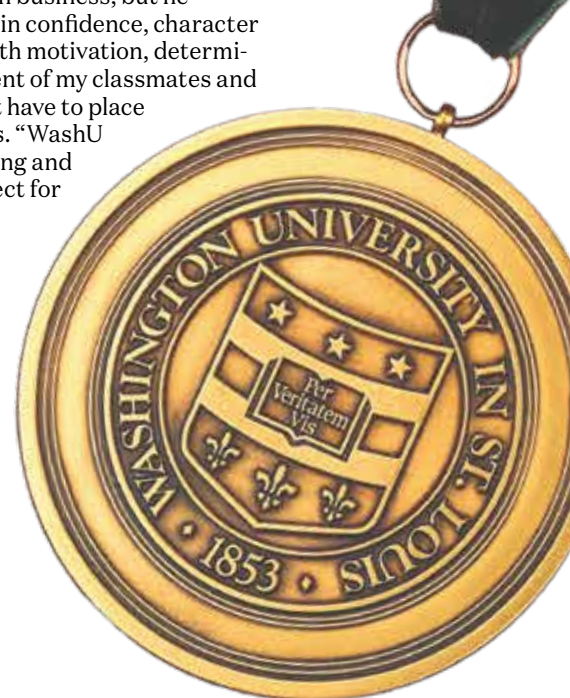
development projects across Africa. Through the organization, he spent a summer helping to build a medical clinic in a small village near Lagos, Nigeria. Like the demonstration at Brookings Hall, the trip proved formative and catalyzed Weaver's lifelong commitment to advancing education and health care in Africa.

Weaver earned a degree in business, but he received an equal education in confidence, character and kindness at WashU. "With motivation, determination and the encouragement of my classmates and professors, I realized I didn't have to place any limits on myself," he says. "WashU instilled in me a spirit of caring and compassion and a true respect for people of all backgrounds."

Weaver continues to live out these values as a pastor and philanthropist. He still marvels at how much of his life's work was influenced by his undergraduate years.

In WashU, Weaver sees not only his past but also his future. As he celebrated his 50th reunion, he watched his grandson, Trey Davis, graduate with the Class of 2022 and become the family's third WashU alumnus.

■ EMMA DENT, AB '09





# MAKE WAY *for the* CLASS *of* TOMORROW.

You can support *Make Way: Our Student Initiative* by making a gift through your will, trust, or beneficiary designation. It's one of the easiest ways to leave a legacy at WashU and invest in the future of our students. Learn more at [plannedgiving.wustl.edu](https://plannedgiving.wustl.edu) or 800-835-3503.



# Class Notes



“Angelou concluded with an exhortation to the students. Quoting a West African proverb, she said, ‘The problem is not how to steal the chief’s bugle, but where to blow it.’ For students of Washington University, the problem is not how to get in. ‘You’re here. But what are you doing here?’ ... She had a few suggestions. ‘Avail yourselves – with ruthlessness – of the library.’ ... So ‘make use of your teachers. You have an obligation to all the people who paid their dues so that you could be here. Get an overview of how you came here.’”

**KARL NARVESON**, AB '82, wrote in *Student Life*, April 7, 1981, about Maya Angelou’s talk “The Many Facets of Maya Angelou,” on April 1, 1981. Angelou’s Assembly Series lecture and others are now available at <https://library.wustl.edu/spec/assembly-series/>.

Photo: Washington University Archives

# What's New?

Let us know about recent honors, promotions, appointments, travels, marriages and births, so we can keep your classmates informed of important changes in your lives.



## SEND NEWS:

Class Notes, *Washington Magazine*  
Washington University in St. Louis  
Campus Box 1070  
1 Brookings Dr.  
St. Louis, MO 63130-4899



## EMAIL:

wustlmagclassnotes@wustl.edu

Entries may take up to three issues after submission to appear in the magazine; they are published in the order in which they are received.

## ALUMNI CODES

AR	Architecture
BU	Business
DE	Dentistry
EMBA	Executive MBA
EN	Engineering
FA	Art
GA	Graduate Architecture
GB	Graduate Business
GD	Graduate Dentistry
GF	Graduate Art
GL	Graduate Law
GM	Graduate Medicine
GN	Graduate Nursing
GR	Graduate Arts & Sciences
HA	Health Care Administration
HS	House Staff (Residency)
LA	Arts & Sciences
LW	Law
MD	Medicine
MT	Manual Training
NU	Nursing
OT	Occupational Therapy
PMBA	Professional MBA
PT	Physical Therapy
SI	Sever Institute
SU	Sever Institute Undergraduate
SW	Social Work
TI	Technology & Information Management
UC	University College

## 1959

**Robert D. Brooks**, LA59, has taken up full-time residence in Connetsee Falls, near Brevard, N.C., after the passing of his wife, Kathleen Swann Brooks.

## 1960

**Howard "Hank" Bierman**, EN60, was inducted into the St. Louis Amateur Baseball Hall of Fame in April 2022. At 89, he was the oldest inductee ever. Bierman was a hard-hitting outfielder and third baseman who could play all positions. In 1946, the New York Yankees offered him a contract that was rescinded when they found out he was only 13 years old. In 1951, he played professionally in the St. Louis Browns system, and during the '50s, he also played in the New York Giants system and other minor league systems. In 1953 and 1954, he played while in the service at Fort Leonard Wood, Mo. He has lived in California since 1977.

## 1964

**Ivan Sherick**, GR64, published *Development, Psychopathology, and Treatment Techniques Across the Life-Span, A Psychoanalytic Perspective* (IP Books, 2020). The book is for students and professionals. It explains the psychoanalytic issues involved in language accessible and available to all. Clinical examples are provided, and recommended readings are included at the end.

## 1965

**Charlotte McDaniel**, LA65, received a grant from the U.S. Department of State's Citizen Diplomacy Action Fund to assist Tunisian olive plantation owners in enhancing production and marketing of their crop. Tunisia's economy depends heavily on olive oil, which accounts for almost half of the country's food exports. McDaniel, who held a Fulbright appointment to Tunisia in 2012, serves as faculty scholar at Emory University's Center for the Study of Law and Religion.

## 1967

**Perci Chester**, FA67, had an exhibition of his new sculptures and works on paper, "Othering Mothering: Detonation of a Notion," on display at the Traffic Zone Center for Visual Art in Minneapolis, September–October 2022.

**Charles "Chuck" Ortner**, LA67, retired as a partner at Proskauer Rose LLP after 50 years representing leading music creators such as Lady Gaga, Madonna, John Legend and Michael Jackson, as well as major recording and music publishing companies. He remains a board member of several nonprofits and will continue as an executive producer of film and TV projects. Ortner is the husband of the late **Jane Gold Ortner**, LA67, and the father of **Amy Ortner Mandell**, LA94, and Eric Ortner, a 1998 graduate of the University of Rochester.

## 1968

**Frederick Scott**, GA68, retired in December 2020 after 45 years at HBE Corporation, St. Louis, where during his career he worked on some 2,000 health-care, financial and hospitality projects across the country.

## 1970

**Ron Adair**, FA70, had his illustrated artwork, "America's Favorite Pastime — The Art of Ron Adair," on display at Ebsco Fine Art Gallery, Columbiana, Ala., from May–June 2022. The exhibit featured a collection of museum production prints of Adair's baseball portraits along with the baseball cards they appeared on, as well as several oil paintings and a portrait of Hank Aaron that Adair painted for the exhibit.

**George Johannes**, AR70, GA73, is a practicing architect and teaches professional practice in the Graduate School of Architecture & Urban Design in the Sam Fox School of Design & Visual Arts at WashU.

**Norman Pressman**, LA70, LW74, an attorney at Goldstein & Pressman PC, Clayton, Mo., wrote an opinion piece on the Great Resignation that appeared in the *St. Louis Business Journal* (<https://bizj.us/1qdg5r>). In the piece, he suggests a rising-tide-floats-all-boats solution: provide a living wage for all, universal health care and affordable housing.

## 1971

**Karen Fairbank**, LA71, LW75, GR84, retired in May 2022 from Thomas Jefferson School, a coed day and boarding college prep school in St. Louis, after 38 years as director of college counseling, an advanced placement U.S. history and English teacher, and director of student activities. Nearly 200 alumni, parents, current students, staff and friends attended her retirement party. Fairbank plans to help with costumes for theater productions at the school, where she started the drama program. She is also volunteering as a St. Louis Zoo ambassador, serves on the volunteer board at The Rep, and is a substitute teacher in the Clayton school district and John Burroughs School, where she was a student teacher in 1984.

**Joe Madison**, LA71, LW19, signed a new, multiyear deal to continue hosting "Joe Madison, The Black Eagle" exclusively on SiriusXM. The program airs weekdays, 6–10 a.m. ET, on Urban View channel 126. A member of the National Radio Hall of Fame and a civil rights activist, Madison is the former national political director of the NAACP.

## 1973

**Maiyim Baron**, LA73, a Japanese technical interpreter, was invited to interpret for the Japanese elite runners at the 126th Boston Marathon in April. The Japanese group had a bad race day, Baron writes, and

she wasn't featured with them on the world news feed; still, she greatly enjoyed the work and expects to do it again in 2023.

**Tom A. Lassar**, LA73, HS80, retired with his wife, **Jane Laubheim Lassar**, LA73, in Tucson, Ariz., after 41 years of clinical practice. He also had held positions as a professor of medicine/interventional cardiology at University of Arizona College of Medicine and as an associate director of cardiac cath and intervention at Banner/University Hospitals. Other prior faculty appointments included assistant professor of medicine at the University of Wisconsin School of Medicine Milwaukee Clinical Campus from 1981–88 and as associate professor of medicine at Case Western Reserve University School of Medicine from 1988–2013. He is currently a speaker/consultant for Chiesi Pharmaceuticals and a research associate for TRISH (Translational Research Institute for Space Health).

---

## 1975

**Mark Kramer**, GA75, and his wife, Margi, wrote and illustrated a children's book, *Molli & Me and the Family Tree*. The book is about a whimsical girl, a nostalgic mom and a wise old family tree that take a journey back in time, revealing beloved ancestors who mysteriously appear as root vegetables and imaginative characters. Kramer is an architect in private practice in Bethesda, Md., and is also a sculptor, creating large welded steel and bronze pieces.

---

## 1976

**Barry A. Perlmutter**, SI76, edited *Integration and Optimization of Unit Operations* (Elsevier, June 2022), which offers engineers advice on increasing their skill levels in various disciplines so they can develop, commercialize and optimize processes. Perlmutter is president of Perlmutter & Idea Development LLC, in Matthews, N.C.

---

## 1977

**Stephanie Barbé Hammer**, GR77, shares proudly that her second novel, *Pretend Plumber* (Inlandia, May 2022), received rave reviews from *Publishers Weekly Book Life*, *BlueInk* and *Jewish Book Council*. The comic adventure features a queer-curious, precocious Los Angelina who grows so fed up with her wealthy Jewish parents that she decides to run away and become a plumber. A retired University of California professor, Hammer teaches creative writing at Hugo House Seattle and Inlandia Institute in Riverside, Calif.

**Walter Zoller**, LA77, retired as a general and cosmetic dentist and is now a forensic dentist in east central Florida.

---

## 1978

**Tamar Abrams**, LA78, is leaving Washington, D.C., after 43 years and moving to Rhode Island so she can awaken to the sounds

and smells of the ocean rather than the cacophony of the nation's capital. Though semiretired, she still writes magazine articles and works a few days each week for a USAID project. Abrams' daughter, Hannah, and son-in-law are moving to England by year-end, so her plans include trips to London.

---

## 1979

**Jim Holliman**, MD79, in May was elected president of the Penn State College of Medicine Emeritus Faculty Organization.

---

## 1981

**R. Mark McCareins**, LW81, was appointed by the ABA Section of Intellectual Property Law as the liaison to the ABA Section of Antitrust Law for the 2022–23 bar year. He also was tapped for a leadership position in the ABA Section of Business Law while serving as general counsel and corporate secretary of the Metals Service Center Institute ([www.mscli.org](http://www.mscli.org)). McCareins also maintains an appointment as a clinical professor in the strategy department of Northwestern University's Kellogg Graduate School of Management.

---

## 1982

**Nathan Byers**, EN82, now semiretired and working three days a week in engineering consulting, writes that he is still as busy as ever. He and his wife, Page, are empty nesters experiencing the paradox of loving their quiet house while missing their daughters.

---

## 1983

**Jeanette Meyer**, LA83, for the 17th consecutive year, earned the RE/MAX Alliance Quality Service Certified Platinum award for her track record of 100% client service satisfaction.

---

## 1985

**Cary J. Mogerma**n, LW85, was installed this year as president of the American Academy of Matrimonial Lawyers, the country's top professional organization for matrimonial and family law attorneys. Mogerma is a shareholder in the St. Louis firm of Carmody MacDonald P.C.

**Ann Davis Shields**, LA85, LW93, joined the mediator panel of United States Arbitration & Mediation, the leading provider of mediation and arbitration services. A professor of practice, Shields is also the director of the pretrial practice and settlement program at Washington University School of Law.

---

## 1986

**Alexander "Alex" S. Douglas II**, LA86, a partner at ShuffieldLowman, was selected to the 2022 list of legal elite attorneys by *Florida Trend* magazine and as a 2022 Florida

Super Lawyer. He practices in the area of fiduciary and commercial litigation.

---

## 1987

**Daniel S. Blain**, BU87, SW89, was recently named as chief executive officer of the Jewish Community Board of Akron. In this role, Blain leads the community's efforts to preserve, perpetuate and enhance Jewish life in Akron. He and his wife, Miriam Rosenberg, live in Lakewood, Ohio, with their two dogs, Kramer and Hazel.

---

## 1988

**Rusty Holman**, LA88, MD92, launched his own company, 1821Health, in June. The Nashville, Tenn., firm offers solutions to fortify the workforce and alleviate the root causes of clinician burnout. Holman was previously chief medical officer of LifePoint Health.

**Jeffe Kennedy**, LA88, on July 1 became the president of the Science Fiction and Fantasy Writers Association for the 2022–23 term.

**Tracey Kenney**, LA88, in March became the chief financial and human resources officer for the newly formed State of Illinois Commission on Equity and Inclusion.

---

## 1989

**Maurice O. Wallace**, LA89, an associate professor of English at Rutgers University–New Brunswick, penned *King's Vibrato: Modernism, Blackness, and the Sonic Life of Martin Luther King Jr.* (Duke University Press Books, September 2022). In his book, he explores the character of Martin Luther King Jr.'s voice and how a mixture of architecture, acoustics, sound technology and gospel influenced it.

---

## 1990

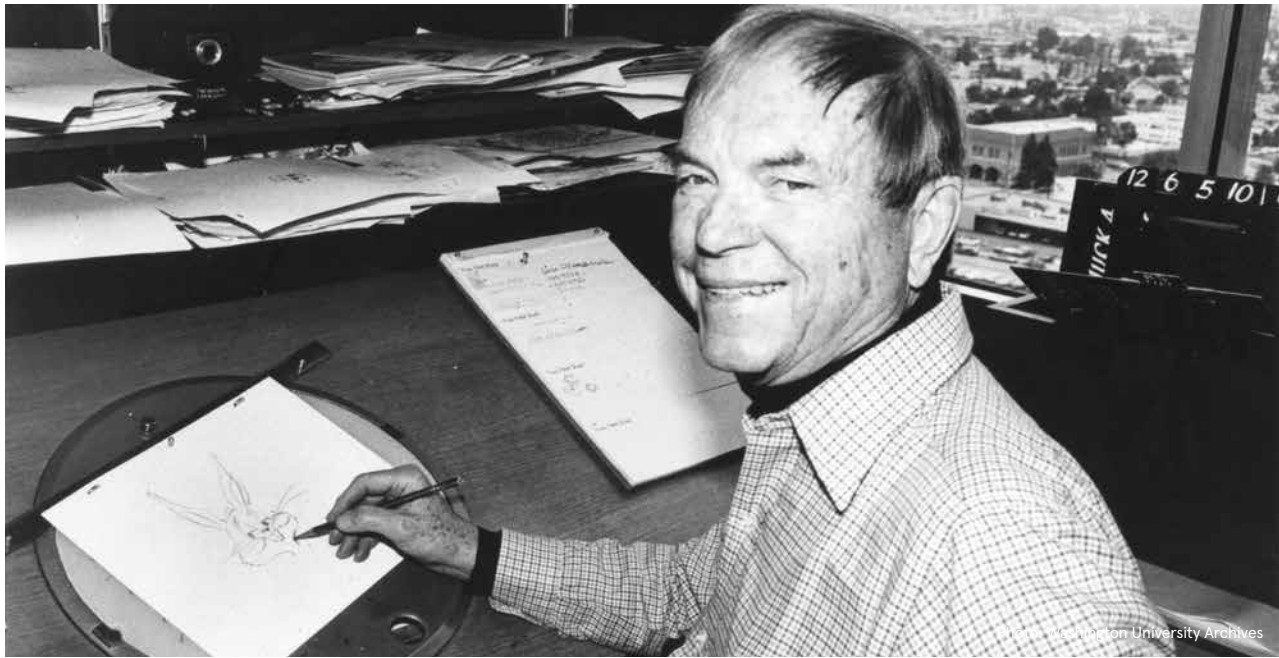
**Kristen Galles**, LW90, received the 2022 Ramey Gender Justice Award from Equal Rights Advocates (San Francisco) for her decades of work litigating precedent-setting Title IX cases and promoting the next generation of Title IX advocates.

**Jason Kravitz**, LA90, a partner at Nixon Peabody, led the team of attorneys that successfully defended W.B. Mason and its use of the word "Blizzard" against a suit from Dairy Queen. Kravitz practices in the intellectual property and cybersecurity/privacy litigation area.

---

## 1992

**Robert Burch**, LA92, in January was elected as the president of the Orange County Bar Association's family law section and in April was elected as the president of the board of directors for the Birch Heights Business Association. In May, his son completed his first year at WashU.



“As the chair of Filmboard, the campus film society of the time, I organized a campus-wide animation celebration event, in February 1981. I programmed films, a display case in the library, a sale of animation cells from classic cartoons and special programming featuring Chuck Jones (above), the Warner Brothers animator. It remains, 41 years on, one of the best weeks of my life.”

**SUSAN LIEBESKIND, AB '81**

(Chuck Jones' Assembly Series lecture and others are now available at <https://library.wustl.edu/spec/assembly-series/>.)

## 1993

**Teddi Daniels, LA93, LA93**, penned and self-published a children's book, *Saving Suzie Q: A Shelter Pup's Story of Survival and Adoption*. The book shares with children the values of kindness, perseverance, hope and love, and encourages them to help others, especially animals, to have a voice and value in our society.

## 1996

**Emily Wells, LA96**, was appointed artistic director of The Human Race Theatre Company in Dayton, Ohio. The third artistic director in the professional company's 36-year history, Wells was unanimously selected by the board and search committee.

## 1997

**Rhonda Broussard, LA97**, wrote *One Good Question: How Countries Prepare Youth to Lead* (TBR Books, July 2022). The book addresses a variety of topical questions: Who should really go to college? What

voice should parents have in their children's education? How is the economy limiting education access worldwide? Broussard is the founder and CEO of Beloved Community, a national nonprofit committed to sustainable economic equity in schools, the workforce and housing.

## 1999

**Dennis Fish, LA99**, joined the U.S. Mint in June as the chief equity officer. For the previous eight years, he was the associate director for program operations at the U.S. Department of Labor's Civil Rights Center. He lives in Arlington, Va.

**Walter Hutchens, LW99, GR99**, was appointed by the University of Arizona Rogers College of Law as director and faculty member of the student program in Qingdao, China. Students who graduate from the program earn a BA in law from the University of Arizona and an LLB from the university's partner institution, Ocean University of China. Previously, Hutchens held an endowed chair and chaired the Global Business Department at the University of Redlands in Southern California.

## 2003

**Jennifer Belmont Jennings, LA03, GR05, LW09**, co-authored a book with 22 other women lawyers, *Women in Law: Discovering the True Meaning of Success* (Ramses House Publishing, March 2022). The book offers life and career advice from 23 accomplished women lawyers who hail from Big Law, small law and everything in between.

## 2004

**Ross Linzer, LA04**, joined King & Spalding LLP's new Miami office as a partner in the firm's trial and global disputes practice group. Linzer represents clients in commercial litigation, the defense of class actions and other transactional matters. He and his wife, Lindsey, live in Davie, Fla., with their sons, Noah and Zach.

**Jeff Maurer, BU04**, was a Libertarian candidate for Indiana secretary of state in the Nov. 8, 2022, general election. He says he ran "to give Hoosiers a verifiable, printed receipt for their vote, so they can see for themselves that their votes were counted as cast."

---

## 2005

**Karen Mayfield-Jones**, LW05, litigation council for PRA Group, Inc., raised over \$40,000 for the Leukemia & Lymphoma Society and was awarded the nonprofit's Community Involvement Award. She also was the runner-up for Illinois Woman of the Year. Mayfield-Jones first became involved with LLS over 15 years ago when she ran a marathon to fundraise for the organization. She has since completed multiple marathons, half marathons and century bike rides to raise money in addition to serving the organization as a running coach and fundraising mentor.

---

## 2006

**Robyn d'Avignon**, LA06, assistant professor of history at New York University, wrote *A Ritual Geology: Gold and Subterranean Knowledge in Savanna West Africa* (Duke University Press, August 2022). The book tells the history of West Africa's centuries-old indigenous gold mining industries and its shared practices, prohibitions and cosmological engagements.

**Anne Wynter**, LA06, created her first picture book, *Everybody in the Red Brick Building*, and it has received an Ezra Jack Keats Honor award for writing. The book also received honors and recognition from the Junior Library Guild, the Writers' League of Texas, *The Boston Globe*, and the Texas Institute of Letters, among others.

---

## 2007

**Judge Gardner III**, EN07, was promoted to assistant to the president and CEO of Atlanta Gas Light and Chattanooga Gas. Previously, he was director of corporate safety at Nicor Gas. Gardner, his wife, Dominique, and their two young daughters, Isabella (6) and Lindsey (1), have relocated from Chicago to Atlanta.

---

## 2008

**Amanda Bennett**, LA08, is a licensed mental health counselor and qualified supervisor for mental health counselor interns in Florida, as well as a licensed professional counselor in South Carolina and West Virginia. She and Jon C. Calhoun were married Feb. 22, 2022, and after their big "2s Day" moved to South Carolina, where Jon teaches at Clemson University.

---

## 2009

**Jillian L. (Strominger) Schumacher**, LA09, was named Outstanding Young Lawyer of Houston, an annual award given to one attorney in Houston under the age of 36 who best demonstrates professional proficiency and service to the bar and the community. These same accomplishments earned Schumacher the Outstanding Young Lawyer of Texas award.

---

## 2010

**Alexander Esche**, EN10, earned a fellowship in the Society of Actuaries. He lives in Noblesville, Ind., with his wife, Melissa, a rabbit and four guinea pigs.

---

## 2011

**William (Bill) F. Tate IV**, GM11, president of Louisiana State University, was elected to the American Academy of Arts and Sciences. Earlier, he served for 18 years as a professor and academic administrator at WashU.

---

## 2012

**Gina Gottlob**, UC12, GR17, and **Adam Fournie**, PMBA18, were engaged Dec. 30, 2021, during a winter vacation in Grand Canyon National Park. The couple will marry in Graham Chapel in May 2023.

---

## 2014

**Miklos Lengyel**, SI14, and **Julia Szilagyi**, GR12, welcomed a second child, Vince Lengyel, in June.

---

## 2017

**Gabe Sobczak**, EN17, graduated from the University of Wisconsin School of Medicine and Public Health and was inducted into Alpha Omega Alpha honor society. He is in an otolaryngology residency program at Indiana University School of Medicine in Indianapolis.

---

## 2018

**Victoria Rabuse**, LA18, earned a master of arts degree in writing from Northwestern University in June and is working on her first novel, a contemporary romance.

**Maya J. Sorini**, LA18, is a student at Hackensack Meridian School of Medicine. She has taught at Columbia University in the narrative medicine program and continues to work as a freelance narrative medicine workshop facilitator. Her work has appeared in medical humanities and literary journals, including *Intima* and the *Journal of the American Medical Society*. A poet and performer as well, Sorini lives with her grandmother in New Jersey.

---

## 2019

**Evan Gates**, LA19, was among the first Peace Corps volunteers to return from overseas after the global evacuation due to the COVID-19 pandemic. He is an education volunteer in the Eastern Caribbean, working with local community and partner organizations on sustainable development projects.

**Libby Jubas**, LA19, earned a master's degree in anesthesia from Case Western Reserve

School of Medicine in May and works as an anesthesiologist at University Hospital in Cleveland.

**Megan Kirk**, LA19, earned one of 62 nationwide spots in the U.S. Global Leadership Coalition's 2022 Next Gen Global Leaders Network, where she attended monthly sessions and a conference with Congress this past summer. The yearlong program engages a group of diverse, bipartisan young professionals in leadership, skills and mentorship training. Kirk is an English/language arts tutor at James Earl Rudder High School in Bryan, Texas.

**Harsh Moolani**, LA19, won a grant of almost \$0.5 million from the Centers for Medicaid and Medicare Services to continue the work of Create Circles, which he launched during his undergraduate days at WashU. To alleviate loneliness among nursing home residents, the nonprofit pairs residents with trained students for collaborative work on longitudinal projects. Moolani is a second-year MD/MPH student at the University of Miami Miller School of Medicine.

**Aliza Shatzman**, LW19, launched The Legal Accountability Project with WashU classmate **Matthew Goodman**, LW19. The nonprofit works to ensure that as many law clerks as possible have positive clerkship experiences while extending support and resources to those who do not.

**Rebecca Woofter**, SW19, a third-year doctoral student at the UCLA Fielding School of Public Health, was awarded the school's 2022 Celia and Joseph Blann Fellowship for excellence in academics. Woofter's research focuses on maternal and reproductive health, including contraceptive use, birth outcomes and access to and quality of health care.

---

## 2020

**Nathan Card**, LA20, is a U.S. park ranger at Arches National Park in Moab, Utah.

---

## 2021

**Eka Jose**, LA21, a student at UCLA's David Geffen School of Medicine, was awarded a National Collegiate Athletic Association (NCAA) Postgraduate Scholarship. While at WashU, Jose was a top competitor on the track and field team, winning two national championships in the indoor and outdoor triple jump in 2019. Jose also won the 2022 Today's Top 10 Award, bestowed annually by the NCAA to honor 10 former outstanding senior student-athletes, and was a finalist for 2021 NCAA Woman of the Year.

**Ethan Lowder**, LA21, is attending Harvard Medical School in the pathways MD class of 2026.

---

## 2022

**Zaid Khaja**, LA22, a research technician on the WashU medical campus, is applying to medical school.



Photo: Washington University Archives

“ The titles of two of Harold Ramis’ Assembly Series lectures, ‘The Semiotics of Comedy in the Post-Modern Era: Towards a Hermeneutics of Humor’ (2000) and ‘Existentialism, Post-Modernism and Deconstructionism: Will This Be on the Test?’ (2009), speak volumes about the man. He was funny, irreverent and deeply sensitive to the intellectual currents and pretensions of his time. Harold was a dear friend and a great friend to the university, which he graduated from in 1966 and continued to serve as a trustee. Although *Animal House*, *Caddyshack*, *Vacation*, *Groundhog Day* and other films remind us of his body of work as one of America’s great filmmakers, for hundreds of Washington University students and faculty, it was his Assembly Series talks and the intimate classes he gave to aspiring actors and directors in the Performing Arts Department that define his legacy. Harold was living proof that fame and worldwide recognition need not come at the expense of one’s core values; through all the years I knew him, he remained steadfast in his care of others and to the university that gave him his start as an artist.”

**HENRY SCHVEY**, PROFESSOR OF DRAMA

(Harold Ramis’ Assembly Series lectures and others are now available at <https://library.wustl.edu/spec/assembly-series/>.)



Shelby Jordan, AB '74, was a team captain and Bears MVP in 1972 and is considered the greatest defensive player in school history. Drafted in the 1973 NFL Draft by the Houston Oilers, he eventually became a six-year starter for the New England Patriots at offensive tackle and later won Super Bowl XVIII with the Los Angeles Raiders. Jordan, No. 78, is one of two former Bears inducted into the College Football Hall of Fame.

**Shelby Jordan, AB '74**, an 11-year veteran of the National Football League and one of two former Bears players in the College Football Hall of Fame, died Sept. 9.

Jordan, who stood 6 feet 7 inches and weighed 270 lbs., was a team captain and Bears MVP in 1972 and is considered the greatest defensive player in university history. He led the Bears in tackles for three consecutive seasons and was named to All-Centennial football team in 1990.

In 2013, he was inducted into the College Football Hall of Fame. "I am humbled and honored to receive the recognition because I continue to be grateful that I had the opportunity to become a Washington University student-athlete," he said at the time. "The experiences I had at Washington University left a lasting imprint on my life. It was a great orientation to an adult life of responsibility, aspiration and achievement."

Equally impressive in the classroom, Jordan was a member of the Washington University Career Scholarship Program, taking classes at night. The native of East St. Louis, Ill., would work in the morning, practice football in the afternoon and attend classes in the evening. He graduated with a degree in psychology.

Drafted in the seventh round of the 1973 NFL Draft by the Houston Oilers, Jordan eventually became a six-year starter for the New England Patriots at offensive tackle and later won Super Bowl XVIII with the Los Angeles Raiders — the only football player in WashU history to play in the championship game. In all, Jordan played in 151 career games in the NFL, including seven seasons with the New England Patriots (1975, 1977–1982) and four with the Los Angeles Raiders (1983–86).

Jordan retired from professional football in 1988 and lived in the South Bay area of Los Angeles with his wife, Donzella. They funded and directed a Los Angeles-based nonprofit economic-development corporation that provided affordable urban housing and services for families and seniors.

He received numerous awards for his work within the community and was named a WashU Distinguished Alumni in 2009.

Jordan was an inaugural inductee in the Washington University Sports Hall of Fame in 1991. And he joined the late Harvey Jablonsky (1926–30) as representatives from Washington University in the College Football Hall of Fame. (Jablonsky was inducted in 1978.)

"We are saddened to learn of the passing of Shelby Jordan, who dominated opponents in the divisional ranks at WashU in St. Louis before an impressive 11-year pro career," said Archie Manning, chairman of the National Football Foundation. "Starting at WashU as a night student, Jordan took full advantage of the opportunity, excelling on the field and in the classroom. He's a great example of how football can open unlimited possibilities."

**Alyssa Eve Anzalone-Newman, AB '11**, passed away on June 6, after a 2½-year battle with breast cancer. She was 32.

Born in New York City, Anzalone-Newman grew up in South Orange, N.J., and graduated from Columbia High School. After graduating from Washington University with College Honors, she moved to Manhattan to work for Sanctuary for Families, assisting domestic violence victims.

To further her passion advocating for others, she attended the University of

Pennsylvania Law School, where she graduated with a doctor of law (JD) degree, as a Dean's Scholar, and a certificate in management from The Wharton School. At Penn Law, she was selected as an Equal Justice Foundation Summer Fellow.

Anzalone-Newman loved the energy and pace of city life and returned to Manhattan to launch her legal career as an associate with Orrick, Herrington & Sutcliffe LLP. At Orrick, she received the New York State Bar Association's Empire State Counsel's recognition of 50+ hours of pro bono legal services provided to low-income individuals in 2017 and the Legal Aid Society's 2018 Pro Bono Publico Award for her outstanding volunteer service.

She then went on to become a litigation fellow and assistant attorney general in the Office of the New York State Attorney General. In 2019, she joined Columbia University as a Title IX investigator, coming full circle to her previous work helping victims at Sanctuary for Families.

Anzalone-Newman always went the extra mile to help others. In high school, she volunteered for St. Barnabas Medical Center and founded and headed an American Cancer Society Relay for Life fundraising initiative, which recruited 150+ volunteers. In college, she continued her passion fighting cancer and served on the leadership team for a 2,000-volunteer Relay for Life. She was also a dedicated program leader for Natural Ties, which provides socialization opportunities for disabled adults in St. Louis. And she volunteered as a legal services intern for the Rachel Coalition, which assists domestic violence victims in Essex County, N.J.

After her diagnosis, Anzalone-Newman traveled with her sister, Erica, to Illinois to get her puppy, Ruby, who instantly became the center of her life. She cherished her work relationships and loved her family and friends. She is survived by her sister, Erica; brother-in-law, Rob; niece, Ada; her parents, Carole and Douglas; a grandmother; and Ruby.

**N. David Charkes**, MD '55, died peacefully April 1 in Phoenixville, Pa. He was 90.

Charkes devoted more than 40 years of his career to Temple University Medical School as a professor of radiology and nuclear medicine.

Having been introduced to the nascent field of nuclear medicine during his residency at the University of Maryland at Baltimore Hospital, Charkes was then offered the opportunity to start a nuclear medicine department at Einstein Medical Center in Philadelphia in 1962.

Charkes was a clinician, teacher and mentor, as well as a prolific researcher. He authored hundreds of research papers. In 1991, he was honored with the Berson/Yallow Award of the Greater New York Chapter of the Society of Nuclear Medicine, and in 2014, he received the George Charles de Hevesy Nuclear Pioneer Award from the Society of Nuclear Medicine and Imaging.

Charkes was also an expert woodworker, and he enjoyed traveling, sailing, hiking, playing the piano, fencing, attending the theater and following the Phillies.

He is survived by his beloved wife, Nancy, whom he met while they were undergrads at Columbia College; children Susan, Evan and Alice; and five grandchildren.

**Wayne T. Hanebrink**, a former associate dean of Arts & Sciences at Washington University, died July 22 after a fall. He was 83.

Born in Cape Girardeau, Mo., Hanebrink earned both bachelor's and master's degrees from Southern Illinois University Carbondale. In 1973, he earned a doctorate from WashU's Department of History in Arts & Sciences, training as a historian of modern Britain.

Hanebrink joined the WashU staff as an assistant dean of Arts & Sciences in 1969. After retiring in 2002, he helped coordinate WashU's sesquicentennial celebrations, which took place the following year, and later served as president of the Society of Professors Emeriti and as an English-language tutor for international graduate students.

Hanebrink is survived by his wife of 61 years, Annaliesa; the couple met and married as students at Southern Illinois. Other survivors include his son, Paul; brother, Gary; niece, Sarah; and nephew, Travis.

**Col. Robert Hemm**, BSChE '42, DSc '53, died March 17 at the age of 100.

Born June 20, 1921, in St. Louis, he graduated from Cleveland High School in 1938 before attending Washington University on a four-year scholarship. Graduating in 1942, he was commissioned as a 2nd Lt. USAF Reserve.

His World War II military service included instructing in Texas, researching in Ohio and working in Hollandia, New Guinea. He worked for Mallinckrodt Chemical Works after the war before being recalled to active duty in 1951. In 1953, he earned a doctorate from WashU and later an MBA from Auburn University.

The rest of his military career included assignments at the Air Force Materials Lab in Ohio, Air Technical Intelligence in Germany, training with industry in Utah, research management at Systems Command and the Air Staff, and teaching at the Air War College. He retired in 1977 as commander of the Air Force European Office of Aerospace Research and Development in London.

After retiring, Hemm served as executive secretary of the National Materials Advisory Board of the National Academy of Sciences until 1983. Hemm was also an active member of the International Association of Lions Clubs from 1953 until his death.

**Andrew A. Kagan**, AB '69 (archaeology), passed away May 3.

Kagan was an internationally noted art historian and art adviser. He was also a critic of art, music and architecture and wrote for the *St. Louis Globe-Democrat* under the name "Aarno Kane." He was the author of six books, translated into seven languages, including *Absolute Art*, *Marc Chagall* and *Paul Klee/Art and Music*, which served as the basis for exhibitions in Norway, France and Germany.

Kagan earned a bachelor's degree from Washington University and a master's degree and doctorate from Harvard University, where he was a Kingsbury Scholar and held the Harvard Traveling Fellowship. Kagan had been critic-in-residence at Bennington College and a visiting professor of art history at Washington University.

He and his wife, Jayne, were strong supporters of Washington University, and the main staircase in the John M. Olin Library — that ties together each of the library's five levels, offering different study spaces, book collections and works of art — is named for the couple, the Andrew and Jayne Kagan Grand Staircase.

From 1975 to 1990, he served on the editorial board of *Arts Magazine*. He was an enthusiastic golfer and world traveler. He is survived by his wife, Jayne; sister, Nina Radman; and brother-in-law, Phil Radman.

**Noah Philip MacMillan**, BFA '11, died July 31 at the age of 33 from the complications of colon cancer. He was surrounded by his loving family at his childhood home in Takoma Park, Md.

MacMillan was a dedicated illustrator, killer chef, marathon runner, soccer player and ardent Arsenal fan. He was always up for adventure and loved learning more about the world through travel, eclectic reading and an open ear to those he met along the way.

He cultivated a wide circle of devoted friends who repeatedly describe him as kind, generous, funny, talented and humble. "All calm and charisma and easy brilliance," as one of his adoring brothers put it. He "made being a loving, kind person seem so effortless and so cool," in the words of the other.

In D.C., MacMillan attended Aidan Montessori School, Lowell School and Edmund Burke School. After earning a BFA degree in communication design from WashU, he resided in St. Louis for several years, working as a freelance illustrator and teacher in the communication design program, before moving to Los Angeles and then Brooklyn. In New York, he entered an MFA program for illustration as visual essay at the School of

Visual Arts. His last two years were spent in places that were important throughout his life: Fairlee, Vt., and Takoma Park.

MacMillan's boundless creativity outlives him through the art he left behind. His illustrations were featured in such publications as *The New York Times*, *Smithsonian Magazine*, *Sports Illustrated*, *Riverfront Times* and this magazine. He created large-scale works, including for the Chicago Loop ("Float" at State and Adams streets) and City Museum of St. Louis (see pp. 42–43). He loved to draw soccer and was hired to illustrate the beautiful game by Major League Soccer, EA Sports FIFA and *Howler Magazine*. His last job was announced in October by the U.S. Postal Service: A stamp featuring one of his illustrations celebrating women's soccer will be released in 2023.

MacMillan will forever be remembered by his fiancé, Hitomi Inoue; two brothers, Julian and Seth MacMillan; parents, Jeffrey MacMillan and Lucinda Leach; many close extended family members; and an expansive community of devoted friends and colleagues. (The family has started a scholarship in his honor — the Noah Philip MacMillan Portfolio Plus Scholarship — that will support a high school art student in the summer program at Washington University, which was a pivotal early step for MacMillan and his development as an artist. Visit [giving.wustl.edu/MacMillanScholarship](http://giving.wustl.edu/MacMillanScholarship) to learn more.)

**Joseph Reid**, who worked as a master carpenter at Washington University for 42 years, died Aug. 20, in Branson, Mo. He was 72.

A U.S. Army veteran, Reid worked as a carpenter in Facilities Planning & Management from 1976 until his retirement in 2018.

**Carol Letwin Rosenbaum**, JD '74, died March 18.

A native Chicagoan, Rosenbaum was a graduate of the University of Illinois, Champaign-Urbana and Washington University School of Law, where she was the first woman to attend part time.

Rosenbaum worked for 23 years as an attorney for the U.S. Army Troop Support Command in St. Louis. She had a quiet presence, but her wit could be pointed and she could be quick to laugh. She was an excellent cook and adored books, opera, classical music, travel, word games and mah jong.

She is survived by two daughters, Ellen Rosenbaum (Uwe Kraft) and Gail Rosenbaum Doeff (Erik); and two granddaughters, Nina and Lauren Doeff. She was preceded in death by her husband, Fred J. Rosenbaum.

**Jacob Schaefer III**, the Charles Allen Thomas Emeritus Professor of Chemistry in Arts & Sciences at Washington University, died June 27 in St. Louis. Schaefer was one of the world's experts in solid-state nuclear magnetic resonance (NMR). He was 83 years old.

Schaefer was born in San Francisco and lived in Chicago, Los Angeles and Portland, Ore., as a child. He earned a bachelor's degree in chemistry from Carnegie Institute of Technology in 1960 and a PhD in physical chemistry from the University of Minnesota in 1964.

Schaefer joined Monsanto Company as a research scientist in 1964 and worked on the determination of the microstructure of copolymers using solution-state NMR.



He joined the faculty of Washington University in 1986. Schaefer's research specialty was high-resolution solid-state NMR, a method that offers a powerful, atomic-level probe of the structure and dynamics of insoluble biological and synthetic chemical compounds.

Author of more than 300 scientific publications, he was the co-inventor of cross-polarization magic-angle spinning and rotational-echo double resonance techniques, both of which are now standard methods used throughout the world. The Schaefer research program at Washington University made contributions in biology and polymer science through solid-state NMR measurements on large and heterogeneous materials that were not suited to diffraction or solution-state NMR measurements.

Schaefer is survived by his wife, Diana Dicks; children Jill Myers, Jacob IV and Thomas Schaefer; grandchildren Sarah, Emily and Matthew Myers, and Jacob V and Ian Schaefer; and his first wife, Jane Schaefer.

**David H. Warren**, a grant analyst in the Office of the Vice Chancellor for Research at Washington University, died July 17 at his home in Olivette, Mo. He was 66.

A Baltimore native, Warren joined the university in 2016.

Warren earned a bachelor's degree in writing seminars from Johns Hopkins University in 1978 and a doctorate in British literature from the University of Missouri-Columbia in 1987.

"He drew on his incredible ability with language and his attention to detail to teach, write and edit over an eclectic career and in every part of his life, always with the utmost creativity, a witty touch and the care of someone who wanted every single word to count," the family said in an obituary.

His daughter, Ariel Lyons-Warren, is a WashU alumna, having earned an MD/PhD degree in 2014.

Warren is survived by his wife, Rhona Lyons; daughters Ariel, Abra, Mital and Pardes; granddaughters Amalia and Ayla; brothers Matthew and Steven; mother, Rita Warren; nieces and nephews; and many friends.

The following death notices were submitted from May 1, 2022–Aug. 31, 2022. Please contact Advancement Services at [WUADDataChange@wusm.wustl.edu](mailto:WUADDataChange@wusm.wustl.edu) to report the death of an alumnus or alumna. Please submit full obituaries for consideration to [wustlmagclassnotes@wustl.edu](mailto:wustlmagclassnotes@wustl.edu).

## 1940-1949

**Robert V. Hemm**, EN42, SI53; March '22  
**William J. Dodd**, LA48; June '22  
**David J. Kaskowitz**, FA49; June '22  
**Joseph L. Runtz**, EN49; June '22  
**Eugene L. Staton**, EN49; July '22  
**Dorothy (Roucka) Upchurch**, UC49; June '22

## 1950-1959

**Shepard A. Ellis**, EN50; May '22  
**Gordon L. Higgins**, EN50; May '22  
**Patricia (Minor) Taylor**, LA50; June '22

**Sanford A. Bank**, BU51; May '22  
**Mina (Fredkin) Meyer**, LA51; June '22  
**Robert H. Duemler**, LA52, MD56; July '22  
**William G. Kalert**, FA52; Feb. '22  
**Erwin R. Rabin**, LA52, MD56; May '22  
**Michel D. Silva**, LA52; June '22  
**Richard A. Glenn**, GR53; May '22  
**Walter Kemper**, FA53; May '22  
**W. Layton Stewart**, BU53, LW57; June '22  
**Jesse P. Wiggins**, LA53; July '22  
**Norma (Lartz) Clark**, BU54; June '22  
**Marian (Dillie) Auer**, NU55; June '22  
**Allan G. Brodhead**, BU55; May '22  
**N. David Charke**, MD55; April '22  
**Irving L. Cooper**, LW55; May '22  
**Edward G. Dewein**, LA55; May '22  
**Jean (Sutton) Reed**, NU55; May '22  
**Phyllis (Orr) Rosenthal**, BU55; May '22  
**Richard J. Simon**, FA55; May '22  
**Ernest A. Bryant**, GR55; July '22  
**Jerold B. Katz**, LW57, BU57; July '22  
**Kenneth G. Mayhan**, EN57, SI60; May '22  
**Arthur O. Von Rump**, DE57; July '22  
**Walter A. Huber**, SW58; May '22  
**Kenneth L. Ball**, GR59; June '22  
**John J. Beirne**, EN59; June '22  
**Raymond B. Doerhoff**, GR59; May '22  
**Robert A. Gairns**, UC '22  
**Janolyn (Mueller) Hardin**, OT59; May '22  
**Joan (Tolman) Mayer**, LA59; May '22  
**Raymond J. Meyer**, EN59; May '22  
**William D. Olson**, LW59; July '22  
**Katherine (Lynch) Thomas**, SW59; May '22

## 1960-1969

**Martin J. Baron**, LA60; June '22  
**Jordan A. Cohen**, BU60; May '22  
**Wayne W. Enderling**, AR60; Aug. '22  
**John Leidig**, EN60, SI66; May '22  
**Jacqueline V. Lone**, GR60; July '22  
**Amanda (Chura) Schoonmaker**, LA60; July '22  
**Medford S. Webster**, GR60; May '22  
**Terrence Russell Bettendorf**, BU61; July '22  
**Jane (Smith) Shurtz**, UC61; May '22  
**John J. Stretch**, SW61; May '22  
**Robert E. Fister**, UC62; July '22  
**Peggy M. Gibstine**, UC62; June '22  
**Melvin Kraus**, EN62; May '22  
**Ned O. Lemkemeier**, LW62; June '22  
**Thomas E. Lowther**, LW62, UC98, GR99, GR20, UC20, July '22  
**Betty (Sissom) Sachtleben**, UC62, SW66; May '22

**Richard L. Smythe**, UC62; May '22  
**Ned L. Snider**, MD62; May '22  
**William C. Stack**, UC62; June '22  
**Ronald J. Wachter**, HA62; July '22  
**Raymond J. Champion**, GR63; Aug. '22  
**David L. Nelson**, MD63; June '22  
**Richard I. Porter**, MD63; May '22  
**James W. Davis**, FA64; July '22  
**Gary A. Eberhardt**, UC64; July '22  
**Louis W. Hart**, SI64; June '22  
**Norman T. Simms**, GR64, GR69; June '22  
**Eugene S. Clarke**, DE65; May '22  
**Leah (Littlefield) Kahler**, LA65; May '22  
**Mary (Marsalek) McGill**, LA65; June '22  
**John D. Peckham**, AR65; July '22  
**Richard M. Summerville**, GR65; July '22  
**Sanford L. Baum**, AR66; May '22  
**M. Michael Gaia**, UC66; May '22  
**Christiane (Wade) Luehrs**, GR66; July '22  
**James B. Lyon**, DE66; Aug. '22  
**Kenneth B. Steinback**, BU66; July '22

**John A. Clizbe**, GR67; May '22  
**Louis J. Reith**, GR67; May '22  
**Frederick A. Stebbins**, UC67, April '22  
**Robert L. Stuntz**, UC67; June '22  
**Omar G. Evans**, UC68; May '22  
**Pamela (White) Hadas**, LA68, GR70, GR73; June '22  
**Andrew A. Kagan**, LA69; May '22  
**Richard L. Korte**, LA69; May '22

## 1970-1979

**James A. Buckenmyer**, GB70; June '22  
**Mark A. Kimler**, EN70; Aug. '22  
**Rosalyn (Paul) Moss**, LA70; May '22  
**Roger C. Yaw**, AR70, GA74; Sept. '21  
**Milton A. Ross**, UC71; July '22  
**Robert B. Wheeler**, HA71; June '22  
**Daniel E. Carruthers**, PT72; May '22  
**Loren A. Crown**, MD72; May '22  
**Benjamin R. Zaricor**, LA72; June '22  
**Harry L. Esserman Jr.**, LW73; Aug. '22  
**Wayne T. Hanebrink**, GR73; July '22  
**Julia (Crawford) Jordan**, GR73; May '22  
**Franklin E. Foster**, LW74; Aug. '22  
**Cathy J. Neuman**, AR74; July '22  
**Carol P. (Letwin) Rosenbaum**, LW74; March '22  
**Mark G. Arnold**, LW77; Aug. '22  
**Lisa (Kapp) Evanson**, AR77, Aug. '22  
**William C. Richardson**, GF77; May '22  
**Johanna (Wineberg) Stewart**, FA77, LA78; May '22  
**Nancy E. Thornton**, GR78; July '22  
**Emmett J. Conroy**, UC79; May '22  
**Ronald J. Seiffert**, BU79; May '22  
**Shirley H. Simmons**, GR79; May '22

## 1980-1989

**Gary P. Mares**, DE81; July '22  
**Michael D. Ames**, UC82; May '22  
**Terri Combs-Orme**, SW82; May '22  
**Daniel L. Schmidt**, LW83; July '22  
**Bradley S. Schwartz**, LA83, GR91; May '22  
**Jane E. Burton**, SW84; Aug. '22  
**Curtis L. Marsh**, LW85; May '22  
**Richard G. Becker**, LA86; May '22  
**Timothy H. Barzegar**, DE88; May '22  
**Robert H. Nichols**, GR88, GR92; June '22

## 1990-1999

**Betty L. Ransom**, SW92; May '22  
**Thruston W. Pettus Jr.**, AR98, May '22  
**Blase W. Boettcher**, GR99; May '22

## 2000-2009

**Jaipal Singh**, AR02, GA09, GA09; May '22

## 2010-2019

**Alyssa E. Anzalone-Newman**, LA11; June '22  
**Noah P. MacMillan**, FA11; July '22  
**Evelyn A. Smith**, SW11; June '22  
**Michael W. Pierce**, SW13; Aug. '22

## 2020-2029

**Justin Hardy**, BU21, BU22; May '22



Photo: Washington University Archives



### Remembering Compton

Arthur Holly Compton (playing banjo) was Washington University's ninth chancellor, serving from 1945-53. Previously a professor and head of the physics department, Compton conducted X-ray scattering experiments in 1922 that demonstrated the particle nature of electromagnetic radiation. At the time, the idea that light had both wave and particle properties was not easily accepted. Through his research at WashU, Compton demonstrated that each ray behaved as a particle, conserving both energy and momentum in collisions with electrons. This provided the first proof that X-rays — already known to show distinctly wave-like properties — could also behave as particles, confirming a long-standing but largely ignored prediction by Albert Einstein. Compton's discovery stimulated the development of quantum mechanics and was recognized with the Nobel Prize in 1927. Visit [source.wustl.edu/2022/12/compton-effect/](https://source.wustl.edu/2022/12/compton-effect/) for more.



**Aim for the stars**

The view from XL-Caliber, a high-powered telescope created by WashU researchers that was launched from Sweden this summer. See more of WashU's research in space and beyond in "Boundless" — visually stunning in-depth storytelling that highlights more of the human capacity to imagine: [source.wustl.edu/2022/08/boundless/](https://source.wustl.edu/2022/08/boundless/).

Photo: WashU/XL-Caliber mission