

Cover: Image of "living wires" from the lab of Nikhil Malvankar, associate professor of molecular biophysics and biochemistry. Learn more on page 6.

Left: Wide receiver David Pantelis TC '25 helped the Bulldogs secure victory in The Game.

Right: Billie Tsien '71 and Deborah Berke. dean of Yale School of Architecture

Opposite: Rita Matta '21 PHD and Anjelica Gonzalez, professor of biomedical engineering, in the Gonzalez Lab





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An education of breadth and depth





Joan E. O'Neill, Vice President for Alumni Affairs and Development

AT YALE, WE BRING TOGETHER GREAT MINDS TO TACKLE THE MOST pressing issues facing our world. In this issue of *ELI*, we highlight how the individuals who make up this institution are addressing critical challenges. Yale is home to exceptional faculty members working at the leading edge of science and medicine. Funding from donors helps advance their work in many ways. One example is the Blavatnik Fund for Innovation, recently expanded by a new gift, which helps translate groundbreaking academic research into real-world products such as novel treatments for diseases and creative technological solutions to longstanding problems.

Of course, Yale is also home to outstanding students across disciplines. The university's ability to cultivate a talented and diverse student body hinges on accessibility for the most deserving students, regardless of their financial situations. At Yale School of Architecture and Yale School of Nursing, new scholarships are opening doors to students of all backgrounds. And at Yale Law School, students are empowered to pursue their passions, even if those jobs are lower paying, thanks to a pioneering program that offers educational loan repayment to those pursuing careers for the public good.

We also celebrate exciting events on campus, from dedicating 100 College Street to groundbreaking on Yale Divinity School's Living Village. These new spaces embody innovation, creativity, and boundless possibilities.

From trailblazing research to inclusive educational opportunities, your support lays the foundation for excellence at Yale. Your contributions have been the cornerstone in fostering an environment where the brightest minds converge to confront global challenges head-on, transforming groundbreaking ideas into tangible solutions with accessibility at the forefront.

Thank you for all that you do.

Sincerely,



Yalies for Service: Rahul Prasad '87 PHD

For One Yale





Rahul Prasad '87 PHD

The Yale campus was nearly empty when Rahul Prasad arrived from India in 1982. It was June, and most students had left New Haven for the summer. Prasad, who was engaged as a research assistant for a few months before beginning his graduate studies, spent much of his free time strolling the grounds and getting to know the layout of the university. One afternoon, a stranger approached him on the street and asked him his thoughts about Yale and New Haven. A few weeks later, Prasad crossed paths with the man again, and they struck up another conversation. Soon after the semester started, with campus abuzz, Prasad spotted him yet again on Hillhouse Avenue and stopped to chat. that to be incredibly enriching because I was able to Later, a friend who had seen them talking asked, "How do you know Bart?" Prasad was confused. His friend explained: "Bart Giamatti. The president of Yale."

For Prasad, those sidewalk encounters with the president are among his first memories of Yale, and his fondest. "Bart, in his way, made me feel like I belonged," he says. "And never for a moment, in all my years of close connection to Yale, have I felt that I

Prasad, now a retired physicist, has been a prolific volunteer for the university over the past three and a half decades. He has served as chair of both the Graduate School Alumni Association and the Yale Alumni Association—the first graduate school alumnus to one university," he points out. "It doesn't matter to do so. Currently, he serves as a member of the For Humanity campaign's Support for Students Advisory Group, on the board of the Yale Alumni Fund, and as president of the Yale Club of San Francisco, in addition to his own work as an investor and chair of two nonprofit boards.

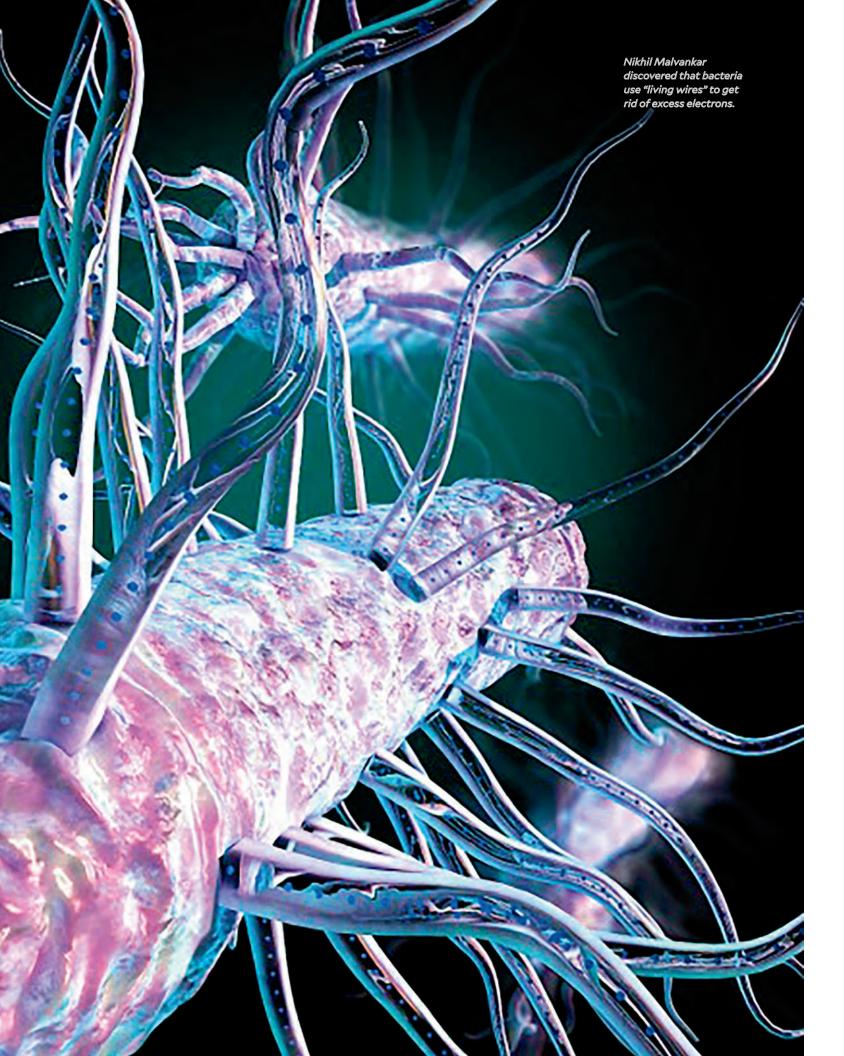
Prasad says his original motivation for volunteering was simple: "I believe that I am the person I am today because of my time at Yale. I grew into an adult here and learned how to think here. It was very easy for me to decide to give back to this great institution."

As for his motivation for continuing to volunteer for so many years, Prasad cites the experience of living in Helen Hadley Hall during his first year as a student. "There was such a diverse group of people in the dorm. I was an engineer; the person next door to me was a tuba player; a couple of doors down was a singer; and down the hall lived an art historian. I wound up finding get out of my own narrow silo and see the rest of the world." he recalls.

"There's nothing better than to be exposed to new experiences and perspectives. That should be true for your entire life. Through volunteering, I have connected with people I would never otherwise have run into. Thirty-five years from graduation, the group of Yalies whom I count as my friends is even larger today than it was when I was on campus."

Indeed, Prasad has been credited with helping to break down barriers between undergraduate and graduate and professional school alumni, fostering a deeper sense of belonging among all. "We belong whether we happen to be from Yale College or the graduate school or the School of the Environment. The collision with the person who has nothing to do with your orbit is so often what generates the spark that produces the next great idea or innovation." ■





Translating Ideas to Impact

The Blavatnik Fund for Innovation brings groundbreaking research from Yale to the world.

IN 2016, A GIFT FROM THE BLAVATNIK Family Foundation helped create Yale's flagship life science accelerator. Now, the foundation has made an additional \$40 million gift that will expand the number of research awards available to Yale faculty and support a wider range of biomedical research.

Run by Yale Ventures, a campus-wide initiative supporting innovation, the Blavatnik Fund for Innovation at Yale supports Yale faculty in translating academic life science research into high-potential healthcare solutions, resulting in spin-out companies, acquisition, or partnership with industry to deliver exciting new biomedical

Since its launch, the fund has supported 63 different projects through more than \$20 million in direct funding for research and fellowships, resulting in the creation of 19 spinoff companies, 3 projects that have achieved FDA Investigational New Drug (IND) status, and 4 clinical trials.

Projects supported by the fund have raised an additional \$254 million in outside funding beyond gifts from the Blavatnik Family Foundation.

"By supporting Yale faculty, researchers, and entrepreneurs, the Blavatnik Fund has accelerated groundbreaking scientific advances to improve people's lives," said philanthropist and foundation founder Len Blavatnik. "I am proud of the fund's enormously positive impact to date, and I look forward to many future discoveries and developments."

The fund also fosters promising entrepreneurs through the Blavatnik Fellows and the Blavatnik Associates in Life Science Entrepreneurship programs. To date, 20 post-graduate fellows and 70 graduate student associates have gained firsthand research experience through the Blavatnik

"By supporting Yale faculty, researchers, and entrepreneurs, the fund has accelerated groundbreaking scientific advances to improve people's lives."

Associates program. Members of the current class of associates are housed across the university, from Yale School of Medicine and Yale School of Public Health to Yale School of Management and Yale School of Engineering & Applied Science.

"By opening pathways for the flow of ideas from academic research settings into industry, the Blavatnik Fund has helped Yale accelerate the pace of new research and technology for the benefit of society," says Yale President Peter Salovey '86 PHD. "I am deeply grateful to Len Blavatnik for his ongoing support of Yale innovations."

Through training and operational funding, the Blavatnik Fund provides Yale faculty with mentoring, exposure, and networking with Yale's extensive entrepreneurial community. This support also advances research with high potential for improving patient care. A portion of the proceeds from successful ventures, license agreements, and product development is re-invested in the program to fund new research and innovation.

"Since the inception of the fund, the number of startups at Yale has doubled from an average of five per year to ten or more each year," says Blavatnik Fund director Morag Grassie. "This is generating highly skilled jobs, creating a demand for incubator space in New Haven, and building a vibrant biotech community. This additional \$40 million donation from the Blavatnik Family Foundation will enable us to further expand our impact." ■

Spotlight on Research Supported by the Blavatnik Fund



Live wires

Living things generate electrons as a byproduct of metabolism. As humans, we get rid of excess electrons through breathing in oxygen. But not all living things breathe like us. Bacteria that live in oxygen-limited environments underground or in water, for example, need other mechanisms to "breathe out" extra electrons.

A team led by Nikhil Malvankar, an associate professor of molecular biophysics and biochemistry at the Microbial Sciences Institute at Yale West Campus, discovered that some bacteria were getting rid of electrons via "living wires."

"We learned that these bacteria were using protein nanowires almost like snorkels to exhale electrons into soil or partner bacteria," Malvankar says. "This means that these living wires could transmit electricity, connecting living cells to the outside world."

The advantages—and potential applications—of these living wires are endless. They are biodegradable, regenerative, low cost,

and function well in extreme acidic environments. With help from the Blavatnik Fund, Malvankar has found potential applications for this technology in computing, light harvesting, infectious disease treatment, body sensors, and DNA sequencing.

"We are using billions of years of evolution to our advantage here," Malvankar says. "It's tough to beat nature's design."

Malvankar says that assistance from the Blavatnik team has been essential.

"The fund is a bridge between basic discoveries and commercially viable products that companies can acquire," Malvankar says. "Scientists aren't trained to think about what parts of our discoveries are patentable, or what experiments need to be done to make industry leaders confident in investing in our work. Having that private sector expertise from the Blavatnik team has been crucial. Without them, my discoveries would never be able to reach people."

Clean water, clear breathing

At a round table discussion with Yale physicians and researchers, biomedical engineering professor Anjelica Gonzalez met a pediatric emergency medicine doctor who shared with the group her experiences in Uganda and Rwanda, where she saw physicians struggle to treat babies with respiratory issues.

"The problem wasn't that the physicians didn't know how to treat the problem or that they didn't have the best and brightest technology," Gonzalez said. "It's that the existing technology was predicated on the assumption that doctors would have access to advanced infrastructure and to clean water."

But in much of the world, the sterile water needed to run these devices is hard to come by. So Gonzalez returned to her lab and began work on a device that could sterilize water while providing breathing support.

Now, thanks to Blavatnik Fund support, Gonzalez's technology is working toward gaining FDA approval.

"On top of the financial award itself, the Blavatnik team taught me so much about how a board and investors think about what it takes to bring a product to market," Gonzalez says. "The process is very different from how academics approach their work and so important for us to learn if we really want to make a difference."



Fighting antibioticresistant bacteria

In 1917, Félix d'Hérelle (Yale faculty, 1928–1933) discovered phages: viruses that infect and replicate only in specific bacterial cells. For more than a century, phages have been seen as potential alternatives to antibiotics.

Today, as the antibiotic resistance crisis leads to millions of deaths each year, researchers are turning to phages as a potential solution; using phages to attack bacteria can nullify antibiotic resistance.

"We discovered a phage in a lake in Connecticut and found that when we introduced it to antibiotic-resistant bacteria, the bacteria changed to evolve phage resistance—and those changes made the cells susceptible to antibiotics again," says Paul Turner, the Rachel Carson Professor of Ecology and Evolutionary Biology at Yale University, and microbiology faculty member at Yale School of Medicine.

Turner has moved into clinical trials on phage therapies for bacterial infections in the lung—something he says would have been impossible without support from the Blavatnik Fund.

"It's early, but we already have critical data showing that inhaling these phages can save people from needing lung transplants and very directly save lives," Turner says. "These treatments are particularly valuable for individuals with cystic fibrosis who are constantly under attack by bacteria that come into the lungs."



A lifeline for lupus

Lupus, an autoimmune disease that is among the leading causes of death for young women, has few successful treatments.

Demetrios Braddock, an associate professor of pathology at Yale School of Medicine, hopes to change that.

An expert in rare diseases and novel biologics, Braddock has developed an enzyme that appears to help lupus patients experiencing diffuse alveolar hemorrhage, a life-threatening complication where blood enters the lungs' airspaces.

"Federal funding sources want to support proven ideas for the most common diseases," Braddock says. "As a researcher who focuses on rare diseases and novel, out-of-the-box treatment ideas, it can be nearly impossible to access the resources necessary to bring these solutions to the world"

In initial testing, Braddock's enzymes were very successful in decreasing fatality rates. Now, his team is working to raise outside funding to manufacture the drugs and test more widely.

"Patients with rare diseases often feel completely abandoned, because they feel like nobody is thinking about their problems," Braddock says. "Knowing that people are working on promising lupus treatments gives them a lot of hope. The fact that the Blavatnik Fund supports those moonshots and helps bring them to life makes all the difference."

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Breaking Ground

Yale Divinity School's new residence hall will give more back to the environment than it takes.

ON OCTOBER 11, YALE DIVINITY SCHOOL (YDS) broke ground on the Living Village, which will be the largest "living building" residential project on a university campus.

Designed to meet the stringent standards of the Living Building Challenge, an international certification system that promotes sustainable design and construction, it also aims to deliver a moral and theological statement about the need to build in harmony with nature. The zero-carbon building will generate its own water and energy and will be constructed of recycled and environmentally safe materials.

Part of Yale's Planetary Solutions initiative, the project is supported by the generosity of longtime friends of YDS George and Carol Bauer and other donors.

The Living Village will set a new standard for sustainable design and embody the school's values, according to Gregory Sterling, the Reverend Henry L. Stack Dean of Yale Divinity School.

"It will set an agenda for the educational program of the school that will train students as apostles of the environment," Sterling said at the groundbreaking ceremony.



Local leaders including
New Haven Mayor
Justin Elicker '10 MBA,
'10 MEM and Katie
Dykes '00, '06 JD,
'06 MA, commissioner
of Connecticut's
Department of Energy
and Environmental
Protection, joined
members of the Yale
community for the ceremonial groundbreaking.

From left: Yale Divinity School Dean Greg Sterling, Yale President Peter Salovey '86 PHD, Carol Bauer, George Bauer, US Senator Richard Blumenthal '73 JD (D-CT), and Yale Provost Scott Strobel

Be the Key

Donors open doors to possibility for students.



DURING THE FOR HUMANITY CAMPAIGN, Yale aims to raise \$1.2 billion for scholarships and fellowships across the university. To date, generous donors have given more than \$800 million toward this goal in gifts to the endowment, annual gifts, bequests, and life-income gifts. Every gift helps to open the doors of Yale wider to talented individuals who join a student body that is diverse across all dimensions.



Opportunities unlocked



"I donate and support financial aid because as a first-generation college student, I would not have been able to attend Yale without the aid I received. I want to do my part to ensure that Yale can continue to provide a worldclass education to students who would not otherwise have that opportunity."

—Shannon Conneely '16, Yale Alumni Fund donor



"I've always been open about my big dreams, but a part of me wondered if they could ever come to fruition because of how expensive college can be. Receiving my financial aid package and realizing that finances wouldn't impede my education for the next four years was a relief, and such a humbling moment. I finally knew that the dreams I'd had since I was a child could become reality."

-Nathania Nartey MY '25, scholarship recipient

"Without financial aid, attending Yale would not be an option for me. I come from a singleparent household, and my mom works as a schoolteacher. Financial aid has opened the door for me to study alongside the brightest scholars in the world."

-Jacob Biggs MY '25, scholarship recipient



\$315

MILLION

MILLION

Your gifts close the gap

Each year, payout from Yale's endowment covers just a portion of the university's spending on scholarships and fellowships. The balance comes chiefly from general operating funds, which could be used elsewhere for things like research, faculty support, and academic programs. Donors who give to student scholarships and fellowships are key to sustaining Yale's commitment to affordability.

Financial aid budget for Yale University



Yale School of Nursing Receives Landmark Gift for Scholarships

The largest gift in YSN's history will make the school more accessible.



AT YALE SCHOOL OF NURSING (YSN), faculty, students, and staff are guided by a common belief that access to high-quality, patient-centered healthcare is a social right, not a privilege. The school prepares nurse leaders, scholars, and practitioners who aim to create a world with better healthcare for all.

However, the cost of education can deter promising students from attending YSN, especially those who are from historically underserved communities or who are looking to practice in those areas. Many students

take out loans to attend. Currently, the average student debt of a YSN graduate is more than \$100,000, a burden that makes it difficult to build a career in communities that cannot afford to pay higher salaries.

In September, YSN dean Azita Emami announced an \$11.1 million gift – the largest in the school's history – for scholarships, making YSN more accessible to students of all backgrounds and bringing the school closer to its goal of offering debt-free education for all students with financial need.

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"YSN's mission is better health for all people, and the Community Scholars Program is a signature effort toward making health equity a reality for all the populations we serve."

Full-tuition scholarships

The endowed gift from an anonymous donor will support the YSN Community Scholars Program, providing full-tuition scholarships to six students each year in the Master of Science in Nursing (RN-MSN) program for experienced nurses or the Graduate Entry Pre-Specialty in Nursing (GEPN) program for college graduates with non-nursing backgrounds.

Community Scholars are selected with consideration for both academic achievement and financial need, as well as a commitment to working with underserved communities and reducing health disparities among them. According to Dean Emami, the Community Scholars Program also helps to address a national nursing shortage and incorporates YSN programs as part of the solution.

"This unprecedented commitment will have a direct impact on students now and well into the future," says Dean Emami. "YSN's mission is better health for all people, and the Community



100 years of excellence

YSN, the world's first academic, autonomous school of nursing, celebrates its centennial year from September 2023–May 2024. Learn more at nursing.yale. edu/centennial.

Scholars Program is a signature effort toward making health equity a reality for all the populations we serve. Our students, our faculty, and our school refuse to accept that the status quo of longstanding and shameful health disparities is inevitable and unchangeable. This remarkable gift can put Yale within reach for applicants who show great promise as future nursing leaders but who might not otherwise afford a YSN education. Community Scholars will act as multipliers anywhere they choose to practice, advancing the goal of making healthcare more accessible for everyone."

Meeting the demands of the next century

"As Yale School of Nursing marks its hundredth anniversary, this wonderful gift supports a top priority for the school – becoming more affordable to students from all backgrounds," says Yale President Peter Salovey '86 PHD. "YSN was the first school within a university to offer nurses a full educational experience rather than an apprenticeship program, and it has continued in that groundbreaking spirit for the century since, shaping nursing in the United States. By ensuring the most talented students can afford to attend and graduate without significant debt, YSN will continue to be a leader in educating nurses and midwives who can meet the demands of the next century."

Unlocking \$50 million in endowed funds

The gift will be met with an equal contribution from the university, for a total of \$22.2 million, as part of a fundraising challenge within the *For Humanity* campaign. For every endowed gift made to the School of Nursing before June 30, 2026, the university will contribute an equal amount to the school's general endowment, up to \$50 million. Similar incentives for endowed gifts exist at Yale School of Medicine and Yale School of Public Health. ■



A Blueprint for Future Architects

The Billie Tsien Scholarship Fund honors an esteemed and admired architect dedicated to inclusion and community.

MORE THAN 80 PERCENT OF ARCHITECTS IN the United States are white, and three quarters are male, making architecture one of the least diverse professions, according to the National Council of Architectural Registration Boards.

Billie Tsien '71, a New York City-based architect and visiting professor at Yale who has led projects like the Obama Presidential Center in Chicago and the Barnes Foundation in Philadelphia, hopes that improving access to architecture education will help change those numbers.

Sharing that goal, Tsien's longtime business partner Tod Williams has created a full scholar-ship at Yale School of Architecture (YSOA) in her honor.

"Leaving architecture school with tens of thousands of dollars in debt and going on to make very little money for many years is a frightening commitment, especially for people from underrepresented backgrounds," Tsien says. "But not only is making architecture more diverse the right thing to do, it's a necessity. Architecture cannot be successful without people from different perspectives and backgrounds."

Honoring a role model

Williams began working with Tsien in 1977 and founded their architectural practice, Tod Williams Billie Tsien Architects, in 1986.

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Tsien and her students review design ideas before class.

"Not only is making architecture more diverse the right thing to do, it's a necessity. Architecture cannot be successful without people from different perspectives and backgrounds."

"Improving accessibility for architecture education is of utmost importance, and I am proud that this scholarship will allow more students to attend this incredible institution," Williams says. "Billie's influence has not only been crucial to our firm's success, but her dedication to making a better world through education, mentorship, and finding the humanism in architecture makes her a peerless role model for any aspiring architect. She epitomizes the values of YSOA and, in my opinion, there is no one more deserving of this honor."

"Tod and I have worked together for forty-six years, and we share a deep admiration for YSOA, where we have both taught for a long time,"

Tsien says. "There is a uniquely humane culture here, where everyone works to learn from each other rather than ruthlessly compete. We take care of each other, so I am very moved by the idea that it will be easier for talented students to access this education."

Seeking out new perspectives

This past September, Tsien's course at YSOA brought her and her students to the rainforests of Sitka, Alaska, where they worked on proposals for a new building at Outer Coast, a school that teaches through indigenous ways of learning.

The school's location provides challenges. The Tongass National Forest, the largest intact temperate rainforest in the world, and the Tlingit Native villages, home to thousands of indigenous Alaskans, face threats from development and climate change, creating a uniquely complex setting in which to build.

While the students were there to gather information for their proposals, they also enmeshed themselves in the local community through service projects that included constructing a smokehouse.

"The students were amazing," Tsien says.

"They immediately got to work drawing up framing plans, making cutting diagrams, laying out boards, and nailing everything together. It was a complete scramble, but it came together perfectly. I was so proud."

Tsien says that her students' commitment to collaboration over competition epitomizes the way she thinks about architecture education.

"We spoke with leaders from the Tlingit tribe who helped us understand how they see the world and its interconnectedness," Tsien says. "A person is related to a raven, is related to a fish, is related to the moss, is related to the bull kelp. We are all at the same level, and all have a responsibility to care for each other. This way of thinking really resonates with me and how I think of myself, my students, and my community."

A welcoming environment

Tsien's success as an architect could make her an intimidating professor, but her students are remarkably relaxed with her. Tsien jokes that it is hard to be intimidating once you have spent a week brushing your teeth together in the same freezing cold bathroom, but students credit her with fostering an intentionally warm environment.

"She really listens to us and works to help us become the best versions of ourselves, rather than molding our work to a preconceived idea," says Tini Tang '24 M.ARCH. "She takes the time to look at our work from our perspective, which is incredibly unique in architecture education, where professors at other institutions often instead just provide feedback on projects based on how they would approach them."

That culture of respect and collaboration is central to Tsien's teaching philosophy.

"I don't think that you can learn anything when you're trying not to cry," Tsien says. "For many years, architecture students would present their projects in front of juries who could be quite cruel, just ripping apart a project. I always hated that, because it was more about the juror posturing than trying to help a student learn. I am grateful that at Yale, we do things differently."

YSOA dean Deborah Berke says Tsien's teaching ethos makes her a perfect fit at Yale, as does her commitment to expanding accessibility.

"Efforts to increase financial aid are at the forefront of my work as dean," Berke says. "I am so grateful to Tod for establishing this scholarship in Billie's name. It will make a big difference in ensuring that the most qualified applicants can attend YSOA, regardless of their financial circumstances."

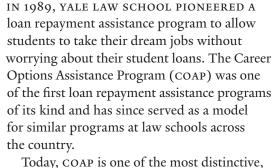


Tod Willams

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A Consequential Education

Loan forgiveness program helps law graduates work for the common good



generous, and flexible loan forgiveness programs available at any law school. In the thirty-five years since its inception COAP has disbursed \$58 million to more than 2,000 YLS alumni committed to making a difference in society.

COAP provides substantial post-graduation assistance with educational loan repayment for those law school graduates who choose lower paying positions and, as such, gives financial expression to the school's commitment to a full range of career opportunities. COAP is designed to cover the shortfall between graduates' educational loan payments and what they can afford to pay from modest incomes.



David A. Jones, Jr. '80. '88 JD and Mary Gwen

Wheeler '80, '87 MPPM

Now, a generous gift from David A. Jones, Jr. '80, '88 JD and Mary Gwen Wheeler '80, '87 MPPM will help guarantee COAP can

continue its mission of removing economic hurdles for YLS graduates. Jones and Wheeler made this contribution in memory of David's parents, David A. Jones, Sr. '60 JD and Betty Jones, esteemed supporters of Yale for nearly six decades.

"David and Mary Gwen's generosity ensures COAP will continue to fulfill its mission of breaking down financial barriers for our graduates," says Heather K. Gerken, YLS dean and the Sol and Lillian Goldman Professor of Law. "The Jones family has always been at the forefront of ensuring our graduates can pursue career opportunities afforded to them without the burden of crushing debt. With this latest gift, we also celebrate the enduring legacy of the Jones family at Yale Law School."

An early and influential supporter, Jones, Sr. played a pivotal part in the inception of COAP and became one of the program's foremost benefactors. In doing so, he solidified the program's foundation, establishing an enduring example for the legal community.

sustain COAP but also encourage broader investment in a diverse array of legal careers," says Jones, Jr. "COAP isn't just about alleviating financial burdens; it's about nurturing the next generation of advocates and leaders who will make a difference in the world."



"COAP isn't just about alleviating financial burdens; it's about nurturing the next generation of advocates and leaders who will make a difference in the world."

Reshaping opportunities

Some of the nation's top public interest lawyers. nonprofit leaders, and creative thinkers have been able to fulfill their great potential thanks to support from COAP, with ripple effects on millions of lives.

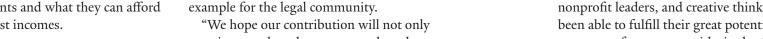
"I really owe the funders of the COAP program for paving the way for me to choose the path that I've chosen in civil rights law. And hopefully as a lawyer and as an advocate, I've

touched many people's lives since law school," says Cecillia Wang '95 JD, who currently serves as director of the Center for Democracy and deputy legal director at the ACLU.

YLS alumni who have benefitted from COAP have had an impact through their work at organizations such as the US State Department, Human Rights Watch, the Texas Defender Service, the New York State Attorney General, and the NAACP Legal Defense Fund.

"David and Mary Gwen's commitment to COAP reflects a deep understanding of the critical role it plays in our mission to educate leaders who will contribute to the betterment of society," says Gerken. "With this gift, they have reaffirmed our shared mission to educate and inspire leaders who will shape a more just and equitable world." ■

A view of the Sterling Law Building's courtyard



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Brain Boost

The dedication of 100 College Street marks a new era for the study of neuroscience at Yale.

From left: Inaugural Wu Tsai Institute Director Nicholas Turk-Browne '09 PHD, Dean of Faculty of Arts and Sciences Tamar Szabó Gendler '87, Yale Provost Scott Strobel, Clara Wu Tsai, Joseph C. Tsai '86, '90 JD, Yale President Peter Salovey '86 PHD, Dean of the School of Engineering and Applied Science Jeff Brock '92, and the Jean and David W. Wallace Dean of Yale School of Medicine Nancy J. Brown '81



IN EARLY DECEMBER, THE YALE COMMUNITY celebrated the dedication of 100 College Street, a new hub for cutting-edge research. The thirteen-story, LEED-certified building is now home to Yale's Department of Neuroscience in the School of Medicine, Department of Psychology in the Faculty of Arts and Sciences, and the Wu Tsai Institute, a university-wide neuroscience research initiative dedicated to the study of human cognition, which was launched in 2021 with a historic gift from Joseph C. Tsai '86, '90 JD and Clara Wu Tsai.

Situated strategically between Yale's central and medical campuses, 100 College Street is designed to foster interdisciplinary connection across the university. The renovated facility supports teaching and research with classrooms, laboratories, and the most advanced tools for brain imaging and data visualization. The layout of each floor emphasizes collaboration, and new pedestrian bridges provide easy indoor connections to the Sterling Hall of Medicine, Yale School of Public Health, and the biomedical research laboratories at 300 George Street.

"One hundred College Street is a cornerstone of New Haven's innovation corridor," said President Peter Salovey '86 PHD. "This building will allow us to move forward – boldly – in working across disciplinary, department, and school boundaries to produce world-altering discoveries in the field of neuroscience."

"This building will allow us to move forward—boldly—in working across disciplinary, department, and school boundaries to produce world-altering discoveries in the field of neuroscience."







Top: Gregory McCarthy, Henry Ford II Professor of Psychology, whose research focuses on the functional organization of the human brain, led an interactive demonstration of scalp EEG recordings.

Bottom left: Graduate students Aarthi Popat '29 PHD and Aaron Baker '28 PHD fielded questions about developmental psychology.

Bottom right: Kia Nobre, Wu Tsai Professor in the Department of Psychology and director of the Wu Tsai Institute's Center for Neurocognition and Behavior, presented some of her foundational discoveries about human perception, attention, and memory.

Unraveling the Complexities of Long COVID

Two donors support Akiko Iwasaki's groundbreaking research into post-acute infection syndromes.

IN JANUARY 2023, A YOUNG WOMAN suffering from Long COVID got up early in the morning, drove to a local state park, and ended her life. She was forty years old and the mother of two children, ages three and six.

For months, the woman had been confined to her bed after being diagnosed with myalgic encephalomyelitis/chronic fatigue syndrome (ME/CFS), a condition she developed following a COVID-19 infection. As her exhaustion, pains, and tremors worsened, she could barely move and lost her ability to speak. Pervasive brain fog made it difficult even to think.

Though its symptoms can be debilitating, ME/CFS has for decades been largely overlooked and even questioned as an illness by the medical and research communities. Meanwhile, suicide rates of people suffering from the condition have risen sharply. According to research in Britain and Spain, ME/CFS patients are six times more likely than the general population to die by suicide.

But there is hope. At Yale School of Medicine, Akiko Iwasaki, Sterling Professor of Immunobiology, is leading studies that are shedding new light on the mysteries of the unrelenting fatigue and other symptoms that can linger after COVID infection. Her research could provide answers not only to COVID "long haulers" but also to patients suffering from ME/CFS, chronic Lyme disease, and similar post–acute infection syndromes that are poorly understood.

"The pandemic has opened the world's eye to the fact that many chronic illnesses have been largely ignored, dismissed, and ridiculed," says Iwasaki, who is recognized as one of the most prominent investigators in the world on the immune response to COVID. "Long COVID has taught the world that these diseases are real, there is a biological basis for them, and we need to study them," she says. Her research on the biological features associated with Long COVID was published in *Nature* in August 2022 and September 2023.



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Recently, two generous donors made significant gifts to Yale School of Medicine to support Iwasaki's groundbreaking research. Philanthropist Emily Fairbairn designated a gift for Iwasaki's investigations of Long COVID and chronic Lyme disease. Carol Sirot has made a contribution to advance Iwasaki's work to identify a diagnostic biomarker for ME/CFS.

Combating chronic Lyme

Fairbairn's gift was inspired by a personal and altruistic mission. Her daughter was diagnosed

with chronic Lyme disease while a student at Harvard. That diagnosis led Fairbairn to uncover the source of her own years of physical suffering. She discovered that her entire family, including their dog, was grappling with chronic Lyme disease.

According to the CDC, approximately 476,000 Americans are diagnosed and treated for Lyme disease each year.

Today, Fairbairn channels her energy and passion into advocacy and supporting individuals battling chronic Lyme disease. "I empower individuals to reclaim mastery over their health

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Akiko Iwasaki

and vitality and advocate for education and the crucial research needed to combat Lyme disease," she says. When asked how others can support her mission, Fairbairn suggests, "Pay it forward. The most invaluable gift is the gift of giving."

Hope for ME/CFS sufferers

For Sirot, who was married to Gustave Sirot, a dermatologist and faculty member of Yale School of Medicine before his death in 1993, the decision to invest in Iwasaki's research came after reading about her efforts to discover a biomarker for ME/CFS. Currently, ME/CFS is mainly diagnosed based on its clinical symptoms. Finding a marker for ME/CFS could result in more reliable, faster diagnoses and could be

a step toward discovering treatments.

"I believe that there's a silver lining to every cloud," Sirot says. "The silver lining to COVID is having people hear about ME/CFS." Sirot herself suffers from the disease, and Iwasaki has given her hope that a biomarker can be found. "Without that hope, people with ME/CFS have nothing," she says. "I'm glad that her research includes ME/CFS, Long COVID, and Lyme disease, and that she has a robust network of collaborators whom she is bringing to the table."

Sirot hopes that her gift will help generate more awareness about ME/CFs. According to an Institute of Medicine report, between 836,000 and 2.5 million adults in the US are estimated to suffer from the condition, with annual health-care costs and lost productivity between \$17 billion and \$24 billion.

"It's vitally important to the global community and not just to this country—that Dr. Iwasaki's research has far-reaching implications. Through my philanthropy, I also want to create health equity and provide comfort to those suffering."

"It's vitally important to the global community — and not just to this country — that Dr. Iwasaki's research has far-reaching implications," she says. "Through my philanthropy, I also want to create health equity and provide comfort to those suffering. We cannot accomplish this unless we work with each other. That's what philanthropy is all about. We're all mere specks of dust unless we work with others to achieve."

Searching for underlying causes

Although Long COVID, ME/CFS, and chronic Lyme disease are triggered by different pathogens, because they often share similar symptoms—including fatigue, unrefreshing sleep, dysautonomia, and pain—Iwasaki believes they share similar pathologies. "If we can identify even with one of these diseases what an underlying cause of disease is, then we can apply that knowledge to prevent and treat other kinds of post—acute infection syndromes," she says.

With 75 million people worldwide now suffering from Long COVID according to the World Health Organization, Iwasaki is devoting substantial effort to studying the many forms that Long COVID takes, as well as potential therapies.

So far, her research has found increased levels of active antibodies against viruses such as the one that causes Epstein-Barr in some patients with Long COVID, indicating a reactivation of latent herpesviruses. She has also demonstrated that the level of cortisol in patients with Long COVID is lower than in other groups, and that there are changes in T cell and B cell activation.

Additionally, Iwasaki has teamed up with

Harlan Krumholz, the Harold H. Hines, Jr. Professor of Medicine (Cardiology) at Yale School of Medicine on a research study to test whether fifteen days on the oral antiviral Paxlovid can improve the health of people living with Long COVID. They have also together launched the Yale LISTEN Study, which strives to learn more about Long COVID, post-vaccine adverse events, and the corresponding immune responses. They both hope to discover clinical insights on potential markers for diagnostic testing and targets for future interventions.

In June 2023, Iwasaki received the Else Kröner Fresenius Prize for Medical Research in Frankfurt, Germany. This prestigious honor recognized her "groundbreaking contributions in the areas of diseases of worldwide significance" and provided additional support for her current and future investigations of post-acute infection syndromes.

In September, Yale School of Medicine officially launched its new Center for Infection & Immunity (CII), established within the Department of Immunobiology, with Iwasaki as its director. The research through CII will focus on the pathobiology of Long COVID, ME/CFS, and post-treatment Lyme syndrome. The other arm of the center will focus on disease prevention.

Iwasaki attributes her continued research efforts in part to the generosity of donors. "I'm deeply grateful to Emily Fairbairn and Carol Sirot for their support," she says. "Thank you for believing in my team and our research in finding the answers."





Top: Emily Fairbairn

Bottom: Carol Sirot

Yale Innovation, Illuminated

Yalies gathered in Boston and Washington, DC.

From left: Elenoe "Crew" Smith '12 PHD (cell biology), Nenad Sestad '99 PHD (neuroscience), Kia Nobre '93 PHD (neuroscience), Stephen Strittmatter (neurology), John Krystal '84 MD (psychiatry), and Abhishek Bhattacharjee (computer science)

More than three hundred members of the Yale community gathered at the Seaport Hotel on Boston's waterfront. Attendees mingled with speakers at the event's reception.





Unlocking the Secrets of the Human Brain

BOSTON

For millennia, both philosophers and scientists have worked to answer the fundamental questions of how the human mind operates. Today, Yale experts are building a comprehensive understanding of the brain, answering the questions at the core of human identity and building the tools needed to treat neurological disease. Yale pioneers discussed how machine learning is bringing insights into the mechanisms driving human behavior, why new therapies could be a turning point in Alzheimer's treatment, and more.

THE FOR HUMANITY ILLUMINATED EVENT series gathers the Yale community for evenings of inspiration and connection in support of the For Humanity campaign and Yale's potential to improve the world. This fall, the series traveled to Washington, DC, and Boston, Massachusetts. Watch videos from each event and learn more at forhumanity.yale.edu.

NEXT UP: Watch the livestream online, or join us in Palm Beach, Florida, on February 7, Dallas/Fort Worth, Texas, on April 30, and Seattle, Washington, on June 14.



Oona Hathaway '97 JD, the Gerard C. and Bernice Latrobe Smith Professor of International Law at Yale Law School (left), and Bisa Williams '76, senior fellow at the Yale Jackson School of Global Affairs (right)

Robert Klee '99 MES,
'04 JD, '05 PHD, lecturer
at Yale School of the
Environment and managing director of clean
energy programming at
Yale Center for Business
and the Environment







The Last Word: Pericles Lewis

An Education of Breadth and Depth

Pericles Lewis is dean of Yale College and the Douglas Tracy Smith Professor of Comparative Literature and professor of English. Before being appointed dean in 2022, Lewis served as vice president for global strategy, vice provost for academic initiatives, and founding president of Yale-NUS College.



You're about halfway through your second year as dean. As you look ahead, what are some of your top objectives?

We are continually innovating to make sure that we're offering the best possible liberal education, and there are a variety of academic strengths that we can build on. For example, I am very keen on strengthening the connection to our collections and providing students even more opportunities to encounter works in person and up close. In addition, our science departments offer many opportunities for undergraduates to become involved in advanced research, and we can facilitate more of that. We are also working to enhance offerings in computer science and engineering.

While we pride ourselves on the breadth of a Yale College education, we also offer opportunities for students to develop truly specialized expertise while they're here. This is an important dimension of the college. One way that this happens is through strong partnerships with Yale's professional schools, which allow students to supplement their broad liberal educa-

tions with exposure to possible career paths that are of interest to them. I hope to continue, deepen, and grow those partnerships.

In addition, to ensure that the education we provide remains top-notch, we must sustain Yale College's generous financial aid program and ensure that every student can afford to attend Yale and thrive while they are here.

Support for scholarships is central to the For Humanity campaign. Can you talk about the importance of financial aid in Yale College?

We will continue to invest in financial aid to ensure that Yale College is accessible to every student who is admitted, regardless of need. Resources for financial aid help us continue to be a leader in welcoming and educating talented students from all backgrounds, and I am grateful to all donors who support scholarships for students. The diversity of our student body is part of Yale's excellence, and we are committed to upholding it.

Today, the number of students who are eligible for the Pell Grant, a federal grant awarded to undergraduates with exceptional financial need, is nearly twice as high as it was a decade ago, and the number of undergraduates who are the first in their families to attend college has increased by more than 60 percent over the past ten years. We recognize that students from these groups may benefit from special support, so we have developed programs to help with the transition to college and give those in need additional financial resources for necessities like winter clothing.

In what ways is a broad, liberal education relevant today?

Many of the values of a liberal education are long-standing, if not eternal: cultivating leadership, ethical character development, citizenship. Yale students gain these skills through their coursework and within their residential college communities. Our students are exposed to a broad range of perspectives through their peers, their teachers, and the wide range of material they study. The liberal education in a residential setting allows students to learn the things necessary to succeed when they graduate, not only in their careers, but also as citizens, as members of the community, and as thoughtful people.

Photography

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Renzetti (right)
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Page 3: Courtesy of Yale Athletics
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