

Ignite

Magazine



A NEW ERA OF CANCER CARE

OHSU is leading us into a new age of understanding a disease that has afflicted humans from the very beginning.



Inside this Issue

OHSU's Miranda Lim, M.D., Ph.D., is shedding new light on how a good night's rest can help mitigate cognitive decline

The Schlesingers have called Portland home for generations. Their recent gift to OHSU is the latest in their legacy of giving back

From cats to shoes to video games, this fall showcased the creative ways our community supports Doernbecher

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Message from OHSU Foundation President Kate Azizi

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Donor support of Oregon Health & Science University sparks the flame of hope for a healthier future for all. *Ignite Magazine* captures those sparks and turns them into stories of impact, inspiration and innovation — stories of lives made brighter by OHSU's exceptional people and programs, and by our community of generous supporters.

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This past summer, my family and I made the cross-country drive from South Carolina — our home for four years — to Portland and my new position as president of the OHSU Foundation.

The attraction of the beautiful Pacific Northwest — a city famous for its soccer, running and food — and the opportunity to lead fundraising in support of one of the premier academic health centers in the U.S. was the opportunity of a lifetime. Three months in, I am pleased to report that my family and I have happily settled into our new home and life in Portland. Professionally, I am thrilled to be engaged with the brilliant minds transforming health care at OHSU, our talented team at the Foundation and an inspiring community of generous supporters.



Kate Azizi, M.B.A., CDE

My life's work has been to raise funds for academic medicine and science, and I am passionate about it. Research, education and care impacts everyone, and the work at OHSU can impact not just the Oregon community, but people around the world. The development of a new therapy or discovery of a new gene can change how people with disease survive and thrive. Students educated at OHSU will care for patients in cities, suburbs and rural areas of Oregon, and they will also bring their expertise to other institutions around the country and around the world. And patients and families getting care at OHSU hospitals and clinics will go on to impact communities around the state and beyond. There is nothing more important than health, and that's why I feel raising funds for OHSU is so critical.

If we haven't had a chance to meet yet, I look forward to the opportunity in the near future and to learning more about what fuels your passion for OHSU.

With gratitude,

A handwritten signature in black ink that reads "Kate Azizi". The signature is written in a cursive, flowing style.

Message from OHSU Interim President Steve Stadum

It feels good to be back home at OHSU. It is an honor to serve as interim president and reconnect with many familiar faces; I also look forward to meeting those of you with whom I have yet to cross paths.



Steve Stadum, J.D.

Throughout my career I've come to appreciate the unique energy found at academic health centers. Something special happens when education, research and health care intersect, and in Oregon that place is at OHSU. My passion for OHSU comes from spending

17 years being a part of this mission-driven community, and helping it grow to become one of our nation's premier academic health centers.

I started at OHSU back in 1999 as general counsel and corporate secretary. At that time, OHSU was only a few years into its transition from a state agency to a public corporation. With additional operational flexibility, better access to capital and more tools to develop our programs, we faced new opportunities and challenges. Along with our ambitions, we also recognized the importance of accountability. As such, I led the establishment of our institution-wide regulatory compliance program, hired our first integrity officer, led development of the first Code of Conduct and enhanced our civil rights office.

With limited space on Marquam Hill and a need to expand facilities to accommodate expected growth, I was also heavily involved in the strategic expansion of our campus from 1999 to 2006. I co-led the team that

"I am also humbled by your steadfast commitment and have enjoyed reconnecting with so many wonderful OHSU friends."

— Steve Stadum, J.D.



The Doernbecher Freestyle 20th anniversary gave us so much to celebrate.

On October 18, the Doernbecher Freestyle community of donors, health care providers, Nike visionaries and patient-designers came together to celebrate two decades of healing, inspiration and creativity. Since 2004, this extraordinary partnership has raised more than \$40 million to ensure lifesaving care is always there for kids — no matter what.

All of this has been made possible through the unwavering support of OHSU Doernbecher Children’s Hospital health care teams, sneakerheads, athletes, Nike staffers, sponsors and donors like you. **Thank you for being a part of this incredible journey — and here’s to the next 20 years.**

Look for the Doernbecher Freestyle 20 Collection available January 2025! To learn more about Doernbecher Freestyle, visit doernbecherfreestyle.org

directed the Oregon Opportunity legislative initiative, which resulted in a \$200 million state investment in OHSU research programs (funded through the national tobacco settlement), matched by more than \$350 million in philanthropy. While the Biomedical Research Building and Kohler Pavilion were under construction, I led the project to build the Portland Aerial Tram and acquire and develop OHSU’s South Waterfront campus. After serving under Presidents Peter Kohler and Joe Robertson, I became chief operating officer of the Knight Cancer Institute where, based on the vision and transformative precision medicine era launched by Dr. Brian Druker, I co-led the successful \$1 billion fundraising campaign for cancer research.

I left OHSU in 2016 for Fred Hutchinson Cancer Center, where I served as executive vice president and chief operating officer until 2022, then became a special adviser to the director until I retired in September.

I am proud to have worked alongside so many dedicated professionals in their service to advance the essential missions of OHSU and Fred Hutch. I am also proud to have been involved with many transformative projects at these institutions — but they were not achieved without the support of our donor community.

In challenging times, I remained anchored by staying true to my values and remembering the mission and vision that drive our work — the same things I intend to do in this interim role. I am also humbled by your steadfast commitment and have enjoyed reconnecting with so many wonderful OHSU friends.

I look forward to engaging with you in the coming months to help reignite the power of philanthropy and prepare us for the next chapter of OHSU’s future, which is bright.

Sincerely,

THANK YOU TO OUR DOERNBECHER FREESTYLE SPONSORS!

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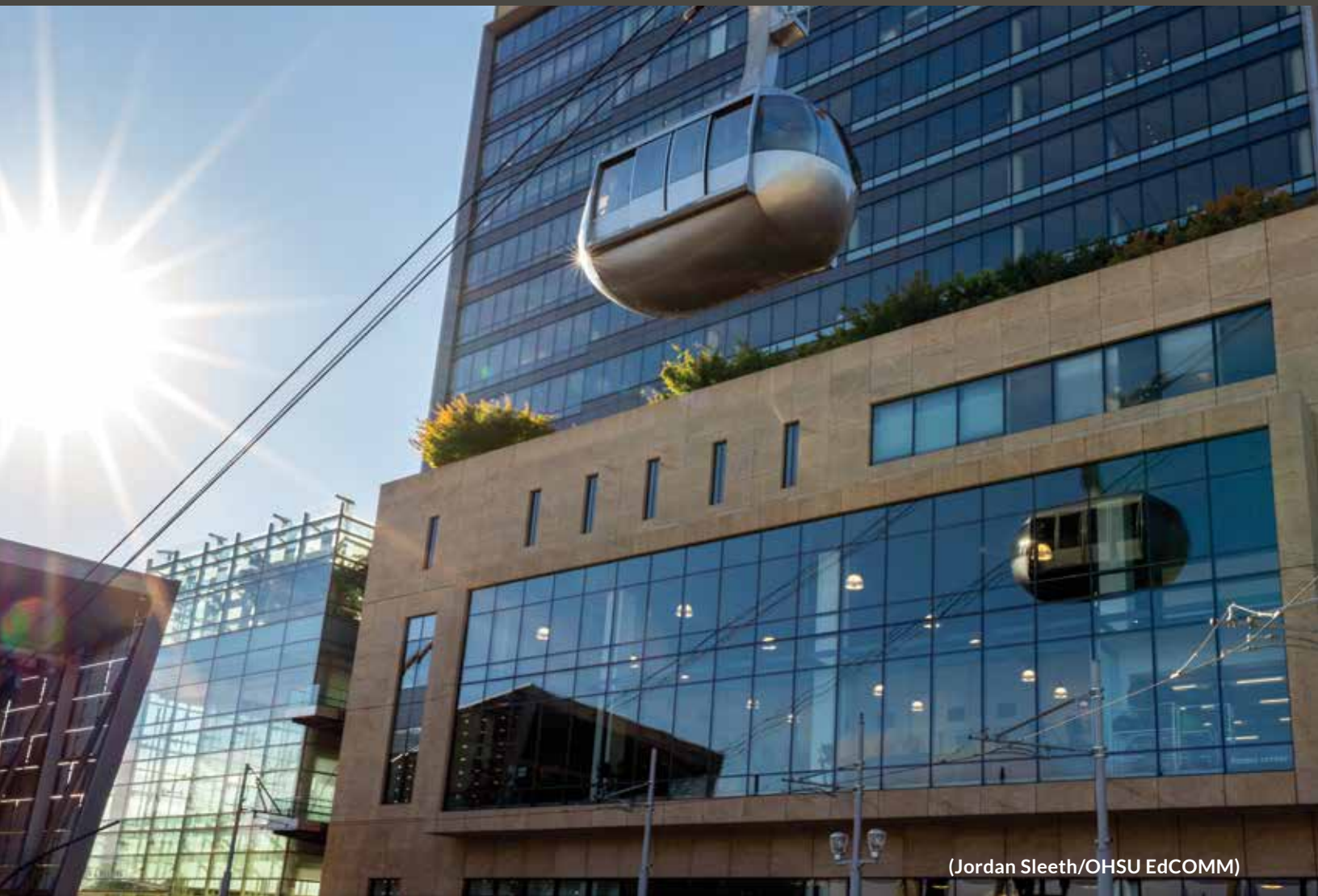
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FOUR PILLARS OF IMPACT



(Jordan Sleeth/OHSU EdCOMM)

Groundbreaking, transformative and life-saving work happens across OHSU and OHSU Doernbecher Children's Hospital every day.

Researchers push the edges of science in pursuit of new answers. OHSU students expand, embrace and redefine the future of health. Clinical teams provide exceptional, patient-centric care.

Here are four selected stories that illustrate donor impact across the missions of research, education, health care and advocacy. Philanthropic support makes the life-saving work of OHSU and Doernbecher possible.

Cancer biologists often deal with overwhelming amounts of data when studying the disease, which can bog down research and make potential cures harder to find. Thanks to his expertise in machine-learning, Zheng Xia, Ph.D., is developing new bioinformatics tools to help cancer researchers unearth answers that may have been impossible to find due to the complexity and vastness of the data.

“I felt it very worthy of my effort to go into this field... For me, it’s very important to be guided by significant biological or clinical questions, but because my background is engineering, I don’t know the clinically important questions,” Xia said. “Through collaborations, I learn how to think about problems and how biologists generate hypotheses, which in turn motivates the design of novel algorithms.”

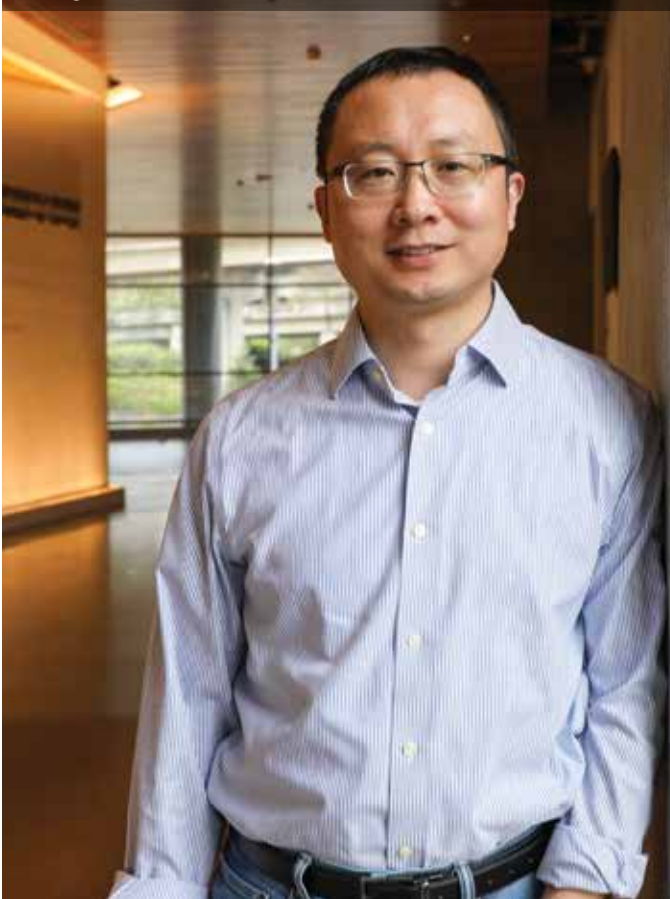
Xia, an associate professor of biomedical engineering at the OHSU School of Medicine and member of the Center for Biomedical Data Science — a joint project of the OHSU Knight Cancer Institute and the University of

Oregon — is currently using his engineering skills to better understand the transformation and interactions of cells in the tumor microenvironment at single-cell resolution. Xia and his lab colleagues have recently developed PENCIL, a pioneering machine-learning model that uses a strategy called “learning with rejection,” which gives the system the ability and freedom to reject low-confidence predictions.

By rejecting irrelevant cancer cells and focusing on the relevant ones, PENCIL can recognize gene signals missed by standard models. The strategy, Xia explained, “aligns with what Confucius once said: ‘It is true wisdom to say we do not know the answer to a question about which we are unsure, and to only respond to questions about which we have high confidence.’”

“This is a very new idea,” Xia said. “I think we are the first to apply learning with rejection in biomedical research... I feel there’s never been a better time to be doing big-data analysis and machine learning for translational cancer research — the DNA of the Knight Cancer Institute.” ■

Zheng Xia, Ph.D. (Christine Torres Hicks/OHSU)



“I feel there’s never been a better time to be doing big-data analysis and machine learning for translational cancer research — the DNA of the Knight Cancer Institute.”

— Zheng Xia, Ph.D.

EDUCATION

Teshia Wilburn distinctly remembers the first time she was called to a career in nursing. At just 8 years old, she felt compelled to help others following a medical emergency within her family.

Wilburn's aunt was taken to the hospital for difficulty breathing, where she ended up undergoing quadruple bypass surgery. Afterward, Wilburn wondered how the medical system could have intervened earlier to answer her aunt's previous calls for help.

"She had seen her primary care provider numerous times, and all he said was, 'Oh, you're just having anxiety.' Because she had gone so many years being misdiagnosed, it built up on itself," Wilburn remembered. "It was within that very moment that I became so fascinated with the inner workings of the heart."

Not only did the event spark Wilburn's fascination with the heart, but it also ignited her devotion to educating underserved populations within medicine. To follow that purpose, Wilburn looked to OHSU. She is now a second-year student pursuing her bachelor's degree from the School of Nursing.

"OHSU does so well with wanting to collaborate and bring diversity in and make it patient centered. That's the way that they teach in school; the curriculum is so patient focused," Wilburn said. "Those things really spoke to me, which is why I wanted to make sure I got my education at OHSU. I felt like our core goals and values aligned."

Wilburn's passion helped lead her to be named a 2024 Johnson & Johnson Our Race to Health Equity Diversity Nursing Scholar, a scholarship that bolsters a diverse health care professional pipeline by increasing BIPOC representation among nurses. Beyond the financial support she received, Wilburn said the scholarship was emotionally encouraging as well.

"I was truly speechless because it meant that somebody saw me and believed in what I wanted to do and the type



Teshia Wilburn (Photo courtesy of OHSU School of Nursing)

of footprint I really wanted to leave in nursing," she said. "If that's something that can be seen on a national level, it gives me so much hope and so much aspiration — the possibilities of what I can do are endless."

Acknowledging that a career in medicine isn't often the easiest path to take, Wilburn said for her, the rewards of nursing greatly outweigh any costs. She looks forward to entering the field after graduation and putting her practical skills to good use, a dream she's maintained since childhood.

"I am really looking forward to being that bright light and that positivity for my patients. I want to make sure that each patient I meet knows I'm here for them, I care about them, and that they're a person and they have value to me," Wilburn reflected. "That's the joy that I get out of it." ■

READ MORE

OHSU students are vital to a healthy future. Learn more about OHSU School of Medicine student Mai-Loan Nguyen ohsuf.org/nguyen and OHSU School of Dentistry student Whitney Warth ohsuf.org/warth.

Reproductive health and rights are not only important for individual health and well-being; they're also essential for community development. When someone is empowered to make informed choices about their reproductive health, it can interrupt generational cycles of poverty and help people reach their full potential.

The OHSU Center for Women's Health and Center for Reproductive Health Equity, directed by Maria Rodriguez, M.D., M.P.H., has a powerful mission, bridging research and health care to become a national leader for reproductive health. Rodriguez's research focuses on the intersection of medicine, policy and economics, and she also provides obstetrical and gynecological care at the Center for Women's Health.

Rodriguez, a professor of obstetrics and gynecology in the OHSU School of Medicine, has helped countless patients on their reproductive journeys during her time as a provider. In recent years following the overturn of *Roe v. Wade*, she's seen an uptick in out-of-state visitors looking for help they may not be able to seek in their home states due to new laws. One patient Rodriguez saw came from across the country after struggling with her mental health.



Maria Rodriguez, M.D., M.P.H. (Christine Torres Hicks/OHSU)

"She was thrilled when she became pregnant. However, she had the same sort of anxiety and depression that a lot of people do, and during pregnancy, it became so much worse. The hardest part about this was she could not find a provider willing to take care of her," Rodriguez explained. "A developing baby generally does best when you take care of the pregnant person, and a mom's mental health is incredibly important for her well-being and that of her child. But she didn't get that message. She flew to us thinking her only option was to have an abortion, get the treatment she needed for her mental health and then try to get pregnant again."

Rodriguez realized that the patient needed mental health support during her pregnancy and connected her with an OHSU reproductive psychiatrist. "We were able to get her the help she needed, and we heard from her that she and her baby are happy and healthy and doing very well."

In testimony to her work, Rodriguez was nominated to the OHSU board of directors by Gov. Tina Kotek this past September for her ability to bring together researchers, educators and health care professionals to achieve better care for people across Oregon.

"We live in interesting times, and while there's a lot of uncertainty, I think there's a lot of reasons to be positive as well," Rodriguez said. "We have the willingness and the collaboration across the state ... to really make positive change for health and equity. This isn't just an opportunity we have; it's a responsibility we have." ■

LISTEN

Listen to Dr. Rodriguez speak on the importance of reproductive health equity in our audio story: ohsuf.org/rodriguez-audio



Jacquelyn Brubaker and Gerard Cox (Photo courtesy of Jacquelyn Brubaker and Gerard Cox)

Patient with flesh-eating disease credits OHSU for saving his life

Gerard Cox's experience comes back to him in fragments.

It was April of 2022. Cox and his partner, Jacquelyn Brubaker, were planning an Oregon vacation. Leading up to their flight, however, Cox felt off. Initially, his symptoms were minor. Then, one after another, they grew. By the time the couple arrived at their destination on the Oregon Coast, Cox had an infection around his groin, was struggling to walk, had yellowing skin and noticed pus secreting from his navel.

"I really could tell then something was going wrong," Cox said. "I knew I was in trouble."

A rush to Willamette Valley Medical Center. Emergency surgery. The shocking diagnosis: necrotizing fasciitis —

flesh-eating disease. His care team at Willamette Valley did what they could, but Cox's condition was deteriorating.

"I got a call, and it was Gerard's doctor," Brubaker said. "He was like, 'There's one bed at the OHSU Trauma Center. If we don't get him there tonight, he will not make it.'"

Cox arrived at OHSU on April 19, 2022 — a day he and Brubaker have taken to calling "Gerard's Alive Day."

"That's the day OHSU and Dr. Swann saved his life," Brubaker said.

Cox was treated by trauma surgeon Maj. Jacob Swann, M.D., who trains at OHSU through the Army Military Civilian Trauma Team Training program. During the initial surgery, Swann and his team searched Cox's body for pockets of infection, removed dead tissue and placed six drainage ports and a wound vacuum. Cox was placed in an induced coma and had four surgeries over his first five days at OHSU. After the fourth operation, he was pulled

“OHSU is the reason I’m sitting here. We are beyond grateful for the care we received there.” — Gerard Cox



out of his coma. Though his condition was improving, he underwent another four surgeries over the next two weeks. On May 16 — one month after Cox was admitted to Willamette Valley — Cox was discharged from OHSU.

“Jac and I wanted to grab everybody’s name on the way out so we could send them cards and pictures,” Cox said. “They saved my life, but they made that month in the hospital such an enjoyable experience. The entire staff — the doctors, the nurses, the techs — they were so upbeat and positive.”

Today, Cox and Brubaker live in Eugene, Oregon, where they spend their free time enjoying the state’s beauty.

“OHSU is the reason I’m sitting here,” Cox said. “We are beyond grateful for the care we received there.”

“We are out here appreciating Gerard’s second chance at life every day, every weekend, every moment,” Brubaker said. “The only reason Gerard is here is because of OHSU. There’s no question about that.” ■

TAX-WISE WAYS TO SUPPORT OHSU

Making a bequest to OHSU costs nothing today and helps create a healthier tomorrow. Access our free will-making tool or learn about the many options, including gifts that pay you an income for life, by visiting plannedgiving.ohsufoundation.org, or by calling us at 971-369-9099.



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Mark and Josh Schlesinger
(Josh Friesen/OHSU Foundation)

A LEGACY OF GIVING BACK

The Schlesinger Family Foundation's support of the inpatient addition is a testament to their love of Portland

By Josh Friesen

Ralph and Bunny Schlesinger established the Schlesinger Family Foundation in 1981 with the goal to help strengthen Portland, a city their family had called home for generations.

Today, the Schlesingers' mission to support the Rose City continues with their pledge to support the first named space in the upcoming inpatient addition hospital expansion on Marquam Hill at OHSU. The Schlesinger Family Foundation's gift to the expansion project is the latest in its legacy of impact that began over four decades ago.

"We all want to make a positive impact in our community, to create a legacy that transcends generations, that goes beyond yourself," said Josh Schlesinger, president and CEO of Schlesinger Companies, board member of the Schlesinger Family Foundation and member of the OHSU Foundation board of trustees. "Our family specifically values the pursuit of knowledge, the care and well-being of our neighbors and the environment. OHSU checks all those boxes."

Pieces of the Schlesinger legacy are scattered not just across Portland, but throughout the Pacific Northwest and Southern California. The Schlesinger Family Foundation supports endowed scholarships at 12 universities, including OHSU, Portland State University,

the University of Portland, Portland Community College, the University of Oregon, Oregon State University and the University of Puget Sound Masters in Teaching program. The foundation also supported a named patient room at Randall Children's Hospital at Legacy Emanuel and was a longtime sponsor of the Virtuoso Evening event, which raised over \$2 million for local nonprofits dedicated to diabetes research, treatment and education.

Together, the Schlesinger Family Foundation's philanthropic investments in health care, higher education and environmental sustainability create a mosaic of impact that has helped shape the region's landscape.

"How does one help and give back to a community that has been good to us?" asked Mark Schlesinger, president of the Schlesinger Family Foundation and partner and senior property manager at Schlesinger Companies. "I live here. I've raised my children here. My children are raising my grandchildren here. This is another opportunity to give back to this community so that we — the collective we, all of us — pay it forward."



“We all want to make a positive impact in our community, to create a legacy that transcends generations, that goes beyond yourself. Our family specifically values the pursuit of knowledge, the care and well-being of our neighbors and the environment. OHSU checks all those boxes.”

— Josh Schlesinger



(Aaron Bieleck/OHSU EdCOMM)

The heart of the OHSU Hospital Expansion Project — slated for completion in spring of 2026 — is a new, 513,000-square-foot building nestled between OHSU Doernbecher Children’s Hospital and the OHSU Casey Eye Institute. In response to the region’s growing need for increased hospital capacity, the inpatient addition will increase OHSU’s bed count by nearly one-third and will be dedicated primarily to providing advanced cancer treatments and complex surgical care. As these services settle into the new building, it will open space to expand and enhance OHSU’s capacity to provide inpatient cardiovascular and neurological care.

Josh Schlesinger learned more about the expansion project as he acclimated to his new role on the OHSU Foundation board of trustees, and he became convinced it was the best way to invest not only in OHSU, but in Portland as well.

“OHSU and the people who work there are such significant parts of the community,” he said. “There are so many stories that come out of OHSU every day about people’s lives that have been impacted in a positive way. For our family foundation to be a part of that, to be a part of the inpatient addition, it was an easy yes.”

“OHSU does amazing things,” added Mark Schlesinger. “There will be someone in this building in the not-too-distant future whose life will be changed, be saved, by the great work of the people that work for OHSU.”

The Schlesingers’ long-lasting legacy of care and compassion is a testament to the pride they hold for their city and their belief in their neighbors.

“Portland is part of the ethos of our family,” Josh Schlesinger said. “This is where we live. This is the community we’re a part of. We want Portland to be successful. We want people in Portland to be successful. Having access to high-quality health care is a critical ingredient to that.” ■



Unlocking brain health through better sleep

By Darby Kendall

It's often said that sleep is the best medicine, and Miranda Lim, M.D., Ph.D., is on a mission to prove the proverb right.

A good night's rest can make all the difference in someone's day, but how much shut-eye we get also has powerful implications when it comes to brain health. Lim, a physician-scientist and co-director of the OHSU Layton Aging and Alzheimer's Disease Research Center and the Sleep & Health Applied Research Program (SHARP Lab), studies sleep in relation to a variety of disorders to get to the bottom of how it impacts the brain.

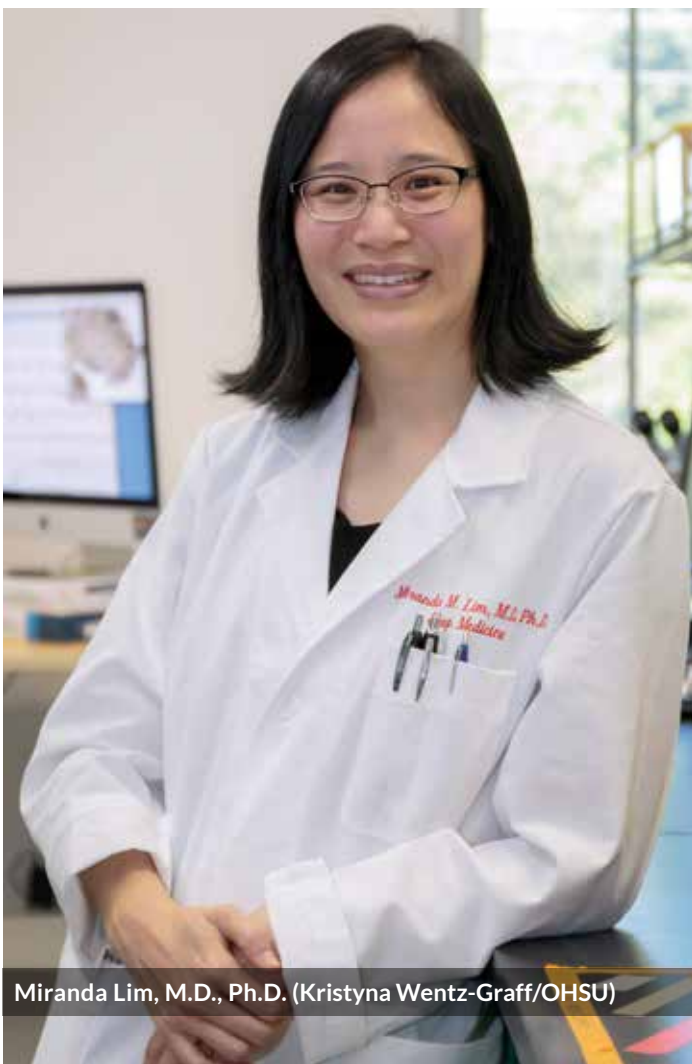
"Every single person has a personal story about sleep, and it makes such a big difference to our quality of life, our outlook, our relationships, the things that make us most human and that we value," Lim said. "Understanding why

sleep is important and uncovering the biology, that's what drives me most as a scientist and as a neurologist."

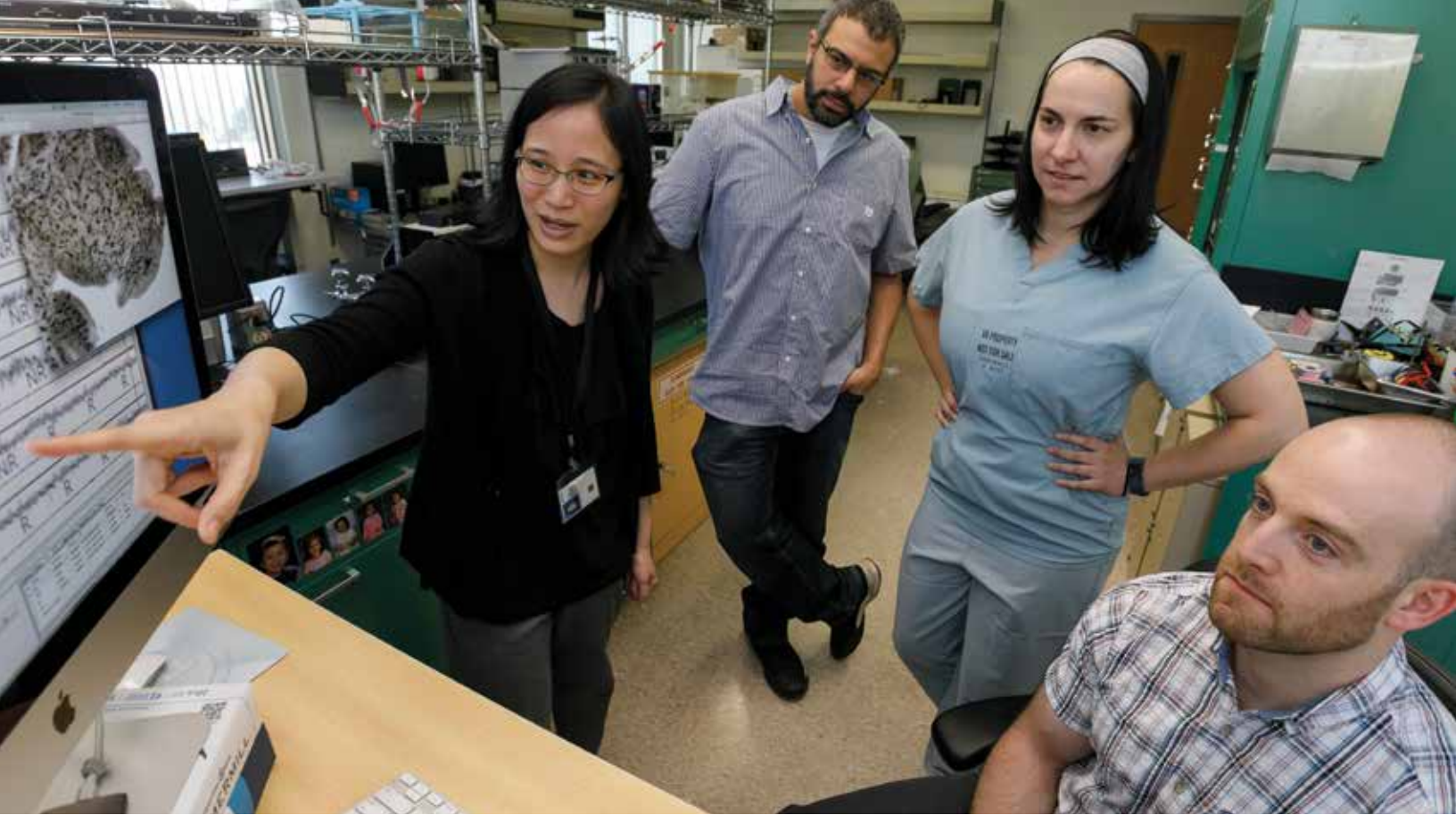
The study of sleep in relation to dementia is a relatively new field, with the science on it growing only over the past 15 years. A revelation during Lim's time as a neurology resident at Washington University in St. Louis inspired her to pursue the subject.

"We ended up making the first discovery that sleep deprivation accelerates the pathology that you see in the brains of Alzheimer's patients. There's something about the biology of sleep that probably helps to wash the brain and inhibit the aggregation of these toxic proteins that can cause memory loss, and even Parkinson's and motor problems," Lim explained. "I was hooked on sleep from that point onward."

At the SHARP Lab, Lim covers a broad range of neurological topics with her research, breaking down her work primarily into three stages of life. She believes that in order to truly uncover the function of sleep, one has to understand its function across the lifespan. In infancy and childhood, sleep can help shape proper brain development, and lack of sleep may affect the likelihood of developing autism — "it turns out that children with autism have significantly reduced amounts of rapid eye movement (REM) sleep. There's something really important about the function of REM sleep early in life in shaping social development and how the brain grows." In her studies on young and middle-aged adults, Lim examines risk factors that predict neurodegeneration, such as chronic impaired sleep due to concussion or post-traumatic stress disorder, which are known risk factors for dementia. For older adults, Lim studies the brain and sleep patterns in relation to Alzheimer's and Parkinson's disease.



Miranda Lim, M.D., Ph.D. (Kristyna Wentz-Graff/OHSU)



(Left to right) Miranda Lim, M.D., Ph.D., Nadir Balba, Carolyn Jones, Ph.D., and Jonathan Elliott, Ph.D., talk at their research lab at the Portland VA Medical Center. Lim and her team research how sleep disruption during development affects spine density later in life. (Kristyna Wentz-Graff/OHSU)

DISCOVERING A PRECURSOR TO PARKINSON'S DISEASE

One significant dimension to Lim's work is her partnership with the Portland VA Medical Center, where she serves as a neurologist evaluating and treating veterans with sleep disorders. Lim noticed an unusually high percentage of veterans with REM sleep behavior disorder, also known as RBD, when people physically and vocally act out their dreams, sometimes causing severe injuries to themselves or their bed partners. Nearly 5% of all veterans in Lim's sleep lab were found to have RBD, and the statistic jumped up to 20% for veterans who sustained a traumatic brain injury with post-traumatic stress disorder as well. Lim was intrigued by the high numbers of RBD she was seeing in her clinic, because, after reviewing other studies, she learned it was tied to neurodegenerative conditions.

"It turns out, over 90% of people with this disorder end up developing Parkinson's disease," Lim said. "This might be the earliest disease manifestation before we know someone's going to develop it, and it's an amazing opportunity to intervene."

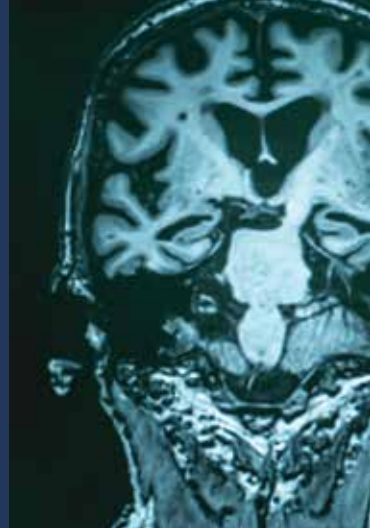
This discovery provides a unique opportunity to help patients earlier, before the onset of Parkinson's, when treatments are more likely to be effective. Civilian populations are affected by RBD as well, with up to 1 in 100 people impacted by the disorder, so Lim's research could have wide-reaching impact in early intervention with Parkinson's disease.

TREATING DEMENTIA WITH DEEP SLEEP

Chronic sleep deprivation can greatly affect the aging brain. When we sleep, the brain flushes away beta amyloid,

“I think that our society places a lot of emphasis on people who are young. As we get older, we relearn different perspectives and ways of dealing with things that can only come with age. I live to support aging in a way where people can still achieve all the things they want to achieve.”

— Miranda Lim, M.D., Ph.D.



a protein that clusters together to form Alzheimer’s-causing plaques between nerve cells in the brain. The less sleep someone gets, the greater the buildup of beta amyloid they’re likely to have, increasing their chance of developing dementia later in life.

Though the link poses concerns for those who struggle with sleep, Lim looks at the discovery with optimism — those who are at risk for dementia can be screened before signs of Alzheimer’s ever arise, and their sleep quality can be preventatively improved. “If sleep is something that can help mitigate risk for Alzheimer’s and Parkinson’s, then we should be really paying attention to it,” Lim emphasized.

“I think that our society places a lot of emphasis on people who are young. There is this tendency to ignore or forget people as they get older, and I think that does us a disservice,” Lim said. “As we get older, we relearn different perspectives and ways of dealing with things that can only come with age. I live to support aging in a way where people can still achieve all the things they want to achieve.”

GROUNDBREAKING RESEARCH EMPOWERED BY PHILANTHROPY

An essential part of what keeps Lim’s work going is the philanthropic support of the Layton Aging and Alzheimer’s Disease Research Center. The additional funding through private philanthropy allows expanded sleep data collection and strengthens efforts to serve diverse communities, a priority for Lim, who is deeply committed to advancing DEI.

“Recent philanthropy has allowed us to support important outreach efforts to our local community, in particular to historically underrepresented and marginalized groups in Oregon,” Lim said. “Philanthropy has been such a key catalyst for our work in the Center. It allows us to do cutting-edge research that is high-risk, high-reward, early in developmental stages — true instruments for change.”

Having co-led the Layton Aging and Alzheimer’s Disease Research Center for over a year now, Lim is energized by the progress sleep science has in store. She envisions a future where sleep research not only deepens our understanding of aging, but also transforms the way we approach dementia prevention and cognitive health.

“I’m excited for the vision for the next five years to include more about sleep health and understanding how sleep fits into this overall picture of healthy aging and cognition, including risk for dementia,” Lim said. “I think there’s a lot to be done. It would be wonderful to tie all those pieces together and tell a new story that has sleep as a driving force for our health and well-being.” ■

LISTEN

OHSU researchers are taking novel approaches to learning more about Alzheimer’s disease. Listen to OHSU neuroscientist Stephen Back, M.D., Ph.D., the Clyde and Elda Munson Professor of Pediatric Research, discuss how philanthropy helped him and his team make a surprising discovery that could lead to breakthroughs in treatment for Alzheimer’s: ohsu.org/neuroscience.




A NEW ERA OF CANCER CARE

OHSU is leading us into a new age of understanding a disease that has afflicted humans from the very beginning.

By Josh Friesen





Humanity has spent millennia unlocking cancer's secrets — learning its processes, how to treat it, live with it, cure it. OHSU is leading us into a new age of understanding a disease that has afflicted humans from the very beginning.

Of all the questions Flavio Rocha's patients ask, there's one that vexes him the most. One that keeps him up at night. One he's spent a career in surgical oncology trying to answer.

"Did you get all of it?"

"Patients always have that question as soon as they wake up from surgery," he says. "In my mind, it's always, 'Yes, I got all the cancer I can see and feel,' but I know in several cases, there's going to be microscopic disease. As a surgeon, I can't remove every single cell of cancer; I have to rely on other therapies to do that job. So, how do we get to the point when I can say, 'Yes, we got all your cancer, and we're going to prevent it from coming back'? There are lots of encouraging things on the forefront."

Rocha is physician-in-chief of the OHSU Knight Cancer Institute, the Hugh Hedinger and Georgeina Hedinger Chair of Surgical Oncology and division head of surgical oncology in the OHSU School of Medicine. A surgical oncologist who specializes in treating liver, pancreatic and biliary cancers, Rocha believes in leveraging everything at his disposal at OHSU in the holistic treatment of his patients.

The Knight Cancer Institute boasts an extensive cancer-fighting repertoire and is world-renowned for its innovative approaches in early detection, clinical trial research and outreach, and immunotherapy treatments. Gleevec, a revolutionary cancer drug primarily developed at OHSU and approved by the FDA in 2001, paved the way for the institute's continued leadership in the field of precision oncology. The institute is also identifying and solving for how

“If we can turn cancer into a manageable, chronic disease, we’ll be able to achieve what we ultimately want, which is reducing cancer death and morbidity.” — Flavio Rocha, M.D.



Flavio Rocha, M.D., FACS, FSSO
(Josh Friesen/OHSU Foundation)

to address gaps of inequity that disproportionately affect underserved and underrepresented populations.

And when the ribbon is cut on the new, 14-floor inpatient addition to the OHSU Hospital in the spring of 2026, OHSU will further expand its ability to provide complex cancer treatment — the impact of which will reverberate throughout Portland, Oregon and the entire Pacific Northwest.

“It’s exciting to see the science behind what we do,” Rocha said. “We’ve learned so much. We’ve made tremendous progress. There are also things that remain unsolved. The more we boost our research into cancer biology and cancer treatment, the more we can serve all populations in need. That’s where I see us in the future.”

Our triumphs of yesterday signal a bright tomorrow. Scientific breakthroughs are leading to more individualized, holistic treatment strategies that span a patient’s entire health journey, and the Knight Cancer Institute’s vision of a world freed from the burden of cancer is perhaps more attainable than ever. But forecasting the reasons for hope on the horizon requires a deeper understanding of the past — a tale of discovery almost as old as humanity itself.

A CHAOTIC, ANCIENT DISEASE

The number of cell divisions a person experiences each day is comparable to the number of galaxies in the known universe — the exact figure resides somewhere in the neighborhood of the hundreds of billions. Each division is a virtually imperceptible yet essential building block, a biological function critical in the growth and maintenance of the complex, organic machines we call our bodies.

Those cells are packed with DNA, and every time a cell splits, it copies its genetic code over to its daughter cell. But DNA replication, unsurprisingly, is no walk in the park, and mistakes are common. Fortunately, our bodies

come equipped with sophisticated detection and repair processes that catch and correct the vast majority of those errors almost instantaneously.

Some errors, however, can slip past the checks and balances.

“If this new cell acquires a mutation that unhooks the brakes for division, then that cell will become cancerous,” Rocha said. “This is what we call an oncogene. When an oncogene gets activated, it does what it knows best: starts dividing. That, at a molecular level, is what’s happening. That’s cancer.”

Despite cancer’s complexity, its underlying molecular mechanisms have stayed the same — even over the course of millennia. In 2016, a team of scientists discovered evidence of osteosarcoma in pieces of foot bone and spine from a pair of hominin samples 1.7 and 2 million years old, respectively. When tested against a modern osteosarcoma specimen, the cancers looked identical.

The takeaway? Cancer isn’t the modern malady we once thought it was. Cancer, it seems, is a natural byproduct of multicellular life, a phenomenon that emerged right alongside us humans. Unearthing its biological and historical roots lends important context that influences how researchers develop treatments and prevention strategies.

“There’s been a huge evolution in how we diagnose and manage cancer,” Rocha said. “Chemotherapy, radiotherapy — those were the earliest tools we had. But now as we move on to a more molecular age, we’re really learning more about the DNA of cancer.”

END CANCER AS WE KNOW IT

If cancer is an inherent genetic process, can it truly be cured? Researchers are still searching for an answer.

But can cancer be controlled? Managed? Molded into a treatable, chronic disease? We're already well on our way to achieving that goal.

According to the American Cancer Society, cancer mortality has decreased by 33% nationwide since 1991. Our tools are better at finding early signs of cancer, enabling doctors to provide lifesaving treatments sooner. Immunotherapies boost and modify the body's immune system to better recognize and attack cancer cells. One immunotherapy, CAR T-cell treatment, the FDA approval of which was secured thanks in part to the Knight Cancer Institute's role as a major clinical trials site, has revolutionized care for children with leukemia and adults with hard-to-treat blood cancers.

The advent of the landmark drug Gleevec, developed by Brian Druker, M.D., CEO of the Knight Cancer Institute and JELD-WEN Chair of Leukemia Research at OHSU, turned a once-lethal form of leukemia into a manageable disease. Gleevec was the first medicine designed not to kill cancer cells outright, but rather to fix the genetic coding error behind their frenzied growth. Precision oncology — the field that emerged from Gleevec's development — is the targeted treatment based on the unique DNA profile of a patient's tumor, allowing oncologists to home in on a cancer's molecular signature and tailor-make more effective and less toxic treatments.

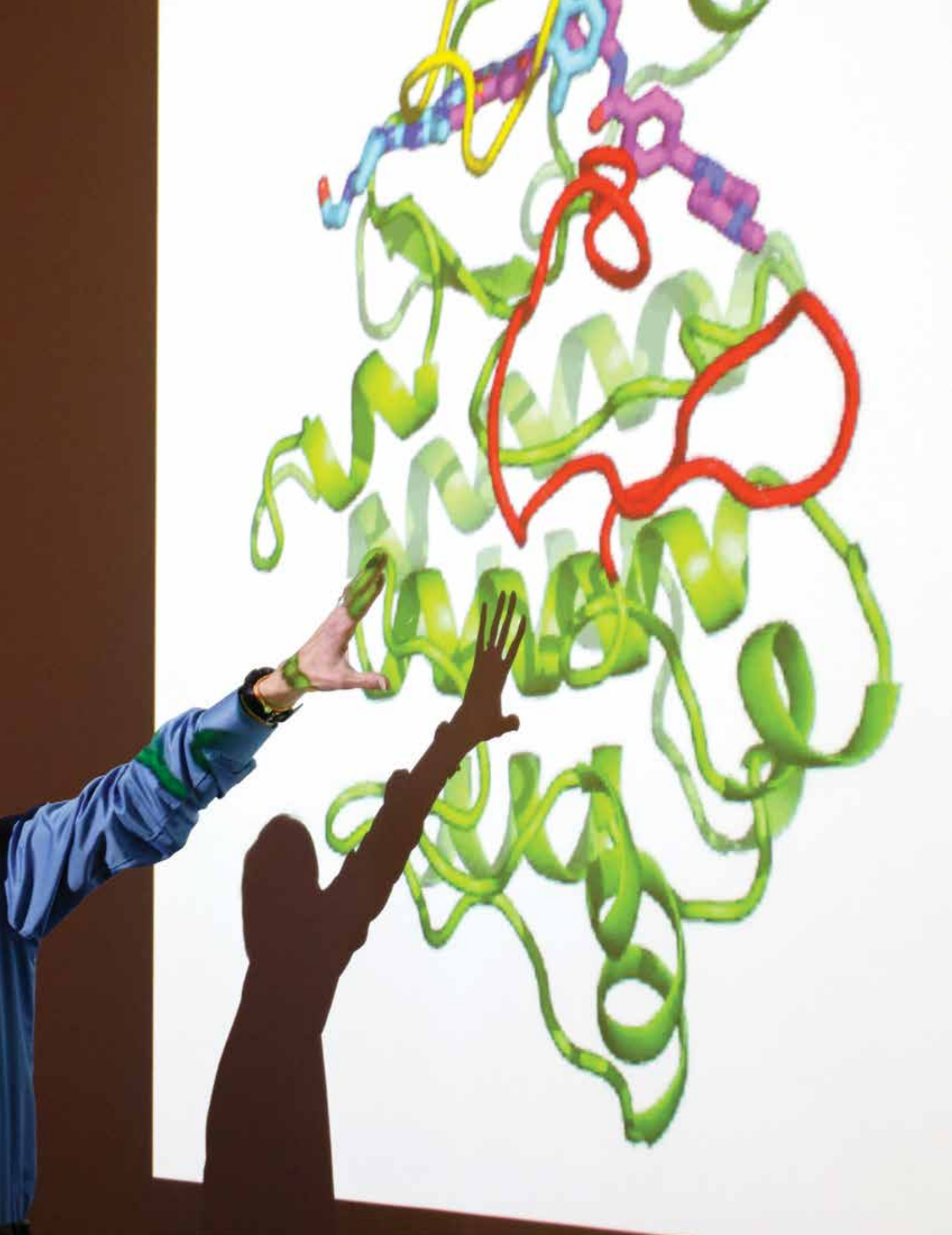
"Learning more about cancer allows us to do two things," Rocha said. "One, find precision treatments that will knock out certain cancers, and two, minimize toxicity of treatment. If we can turn cancer into a manageable, chronic disease, we'll be able to achieve what we ultimately want, which is reducing cancer death and morbidity."

The path ahead isn't without obstacles. Cancer disproportionately harms some populations more than others. Financial, geographical, environmental and racial factors all influence who is affected the most. Black populations suffer higher cancer mortality rates than

Brian Druker, M.D., shows how Gleevec works as he gives a presentation to students from the Creative Science School, during a visit to OHSU, March 9, 2018.

(Kristyna Wentz-Graff/OHSU)






Individuals living in rural areas, including in Oregon, are more likely to be diagnosed with and succumb to cancer and less likely to be involved in prescreening or clinical trials.



WATCH



The OHSU Knight Cancer Institute's mobile outreach van is one way OHSU strives to make cancer care more equitable and accessible. View the documentary-style short film *Healing Within Reach* at healingwithinreach.com to learn more.



all other populations for many types of cancers. Cancer patients in lower income brackets receive less treatment than their wealthier counterparts. Individuals living in rural areas, including in Oregon, are more likely to be diagnosed with and succumb to cancer and less likely to be involved in prescreening or clinical trials.

And recently, researchers have noticed cancer impacting younger generations more, a trend Rocha is currently studying.

“This is a disturbing trend we’re seeing nationally: younger and younger people presenting with early-onset cancer, which is between the ages of 18 to 49,” he said. “We haven’t been able to pinpoint exactly what the cause is, but it has triggered us to be more proactive about screening a population that typically was not eligible for screening.”

Between efforts to make cancer clinical trials more inclusive, collaborations like the Healthy Oregon Project and the Knight Cancer Institute’s Community Partnership Program, and outreach initiatives such as the institute’s mobile outreach van, OHSU is striving to narrow the systemic gaps behind these inequities.

“This is a big movement not just here, but nationwide,” Rocha said. “These are all things we as an institution [need to address], especially at OHSU, whose primary mission is to serve the people of Oregon and the surrounding area. That’s the way we see our mission.”

‘I AM TREMENDOUSLY EXCITED’

New treatments. New scientific fields. New understandings. The Knight Cancer Institute has made a habit out of changing the narrative of — and approach to — cancer.

Next on its to-do list of groundbreaking innovations: rebuilding cancer care from the ground up. The institute’s brightest minds are leveraging everything they’ve learned

to improve cancer care from a patient's initial visit all the way through to survivorship.

The upcoming inpatient addition, part of the OHSU Hospital Expansion Project, is a major step toward realizing that goal.

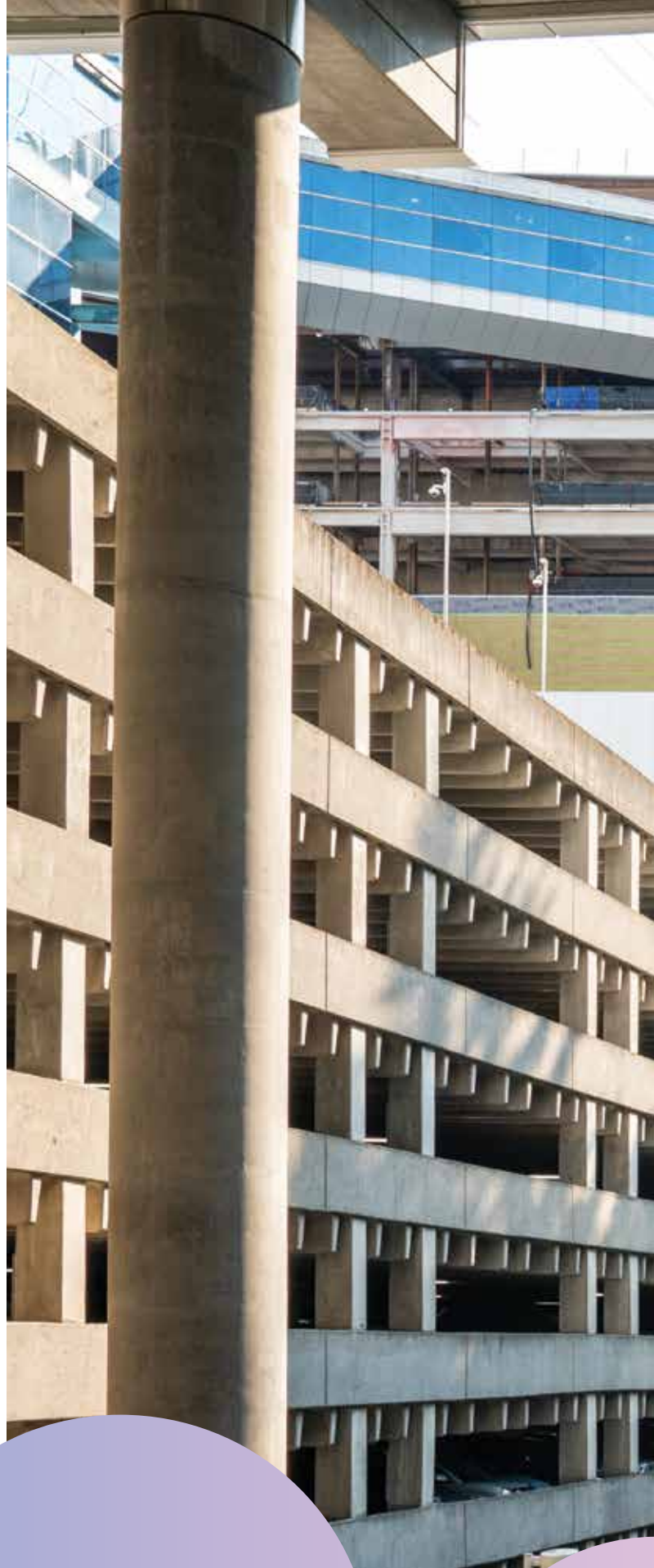
"I'm tremendously excited about this," Rocha said. "The inpatient addition is going to give us the opportunity to have more patients treated and will give us the flexibility to accommodate patients in a new space that's designed with collaboration and integration in mind."

The 14-story, 513,000-square-foot inpatient addition will eventually increase OHSU's total bed count by nearly one-third. Nestled on Marquam Hill alongside the main OHSU Hospital, the Kohler Pavilion and OHSU Doernbecher Children's Hospital, the new building will be a bustling hub of interdisciplinary care. For Rocha and his colleagues, that means more access to innovative cancer therapies, surgical treatments and clinical trials.

"The building's going to allow us to better coordinate our patient care and bring all our specialists to one place," he said. "If you need a radiologist, a pathologist, a specialty surgeon, they'll come to that building and see you."

OHSU's upcoming inpatient addition is the latest in humanity's long and winding cancer journey. Our eternal quest to understand cancer, to reveal the molecular truths from beneath its enigmatic shroud, has brought us to this moment. Each new century, year, month and day is another step forward into a new era of cancer.

"If cancer is just part of being human, the question becomes, 'Can we control it? Can we make it less lethal? If we can't cure it, can we manage it?'" Rocha said. "I think, absolutely, yes." ■





“The inpatient addition is going to give us the opportunity to have more patients treated and will give us the flexibility to accommodate patients in a new space that’s designed with collaboration and integration in mind.”

— Flavio Rocha, M.D.

(Aaron Bieleck/OHSU EdCOMM)

Creativity and heart shine through community programs supporting OHSU Doernbecher Children's Hospital

By Josh Friesen

From colorful “Coraline” cat statues in downtown Portland to celebrating 20 years of Doernbecher Freestyle, this fall was an exciting season of creative, enthusiastic support for OHSU Doernbecher Children's Hospital. The OHSU Foundation joins Doernbecher in extending our heartfelt gratitude to everyone who participated, championed, organized, donated and imagined with us.





In the LAIKA studios, Doernbecher patient Rosie (pictured) worked with Katy Hughes, LAIKA's lead scenic painter, on the design of her cat sculpture.

(Photo courtesy of LAIKA)

Coraline's Curious Cat Trail

If you took a stroll through downtown Portland between Aug. 2 and Oct. 13, you might have noticed a few colorful cat statues perched along the sidewalk.

The Portland Metro Chamber partnered with Portland-based film studio LAIKA for a fun feline fundraising campaign, Coraline's Curious Cat Trail. In celebration of the 15th anniversary of the studio's breakthrough children's animated film, "Coraline," the free art trail featured 31 nearly 6-foot-tall cat sculptures scattered across Portland's downtown and the surrounding area. The statues were painted by a variety of local artists and auctioned off, with proceeds supporting Doernbecher.

One of the pieces was designed by 9-year-old Rosie, a Doernbecher patient who was diagnosed with spina bifida shortly after she was born. Rosie has faced numerous medical challenges, including eight surgeries — all of which she and her family navigated with the expertise and compassion of her care teams at Doernbecher. Rosie's statue, dubbed "The Hero Sculpture," stood near the OHSU Knight Cancer Research Building on OHSU's South Waterfront campus.

"My statue reminds me of my creativity and to keep curious, clever and a bit tricky," Rosie said. "My mom says that these are the magical traits that help kids like me, who have medical issues, overcome those and get to lead amazing lives." ■



WATCH

Curious, clever and a bit tricky!
Meet Rosie: ohsuf.org/rosie



Timberline Daydream

What do you get when you combine live music, costumed mountain bike riders and good brews with stunning, scenic mountain views?

Timberline Daydream, of course.

For the second consecutive year, Doernbecher collaborated with the historic Timberline Lodge for a fun-filled day on Mount Hood. Presented by Columbia Sportswear and Sorel, Timberline Daydream has raised nearly \$350,000 for Doernbecher, with this year's event raising over \$150,000.

The event kicked off in the morning with a mountain bike race presented by Gresham Subaru in which riders — decked out in wild, vibrant costumes — competed for prizes by speeding down the Timberline Bike Park. Live music was provided by local bands and artists Red Light Romeos, The Builders and The Butchers, Tony Smiley, and Hit Machine. Patrons enjoyed craft beers in the beer garden provided by Mt. Hood Brewing Co. ■



GET INVOLVED!

Next year's Timberline Daydream event is slated for summer 2025. To learn more, contact supportdch@ohsu.edu or visit timberlinelodge.com/events for updates.



(Photo courtesy of Timberline Lodge)



(Zamrznuti Tonovi/Shutterstock)

Extra Life Gamers Raise \$1 Million for Doernbecher

Doernbecher’s Child Life program began participating in Extra Life — a fundraising video gaming platform and community of Children’s Miracle Network Hospitals — in 2010. The program has now cumulatively raised more than \$1 million, a significant and impressive milestone for the gamer-fueled initiative. JB Bressler, a gamer from Portland who now lives in Milwaukee, Wisconsin, streams his video game playthroughs via the online live-streaming service Twitch and has helped support Doernbecher through Extra Life from the beginning.

“When we’re streaming, we know why we’re there,” he said. “We’re raising money for charity and having a good time. That’s really the fun of it — shooting the breeze and having some laughs with your friends but knowing that you’re there to raise awareness and raise money. It’s a great feeling.” ■



GET INVOLVED!

Want to get involved with Extra Life? Learn how at extra-life.org.



20 Years of Doernbecher Freestyle

This October marked the 20th year of Doernbecher Freestyle.

As part of a remarkable partnership between Doernbecher and Nike, young patients design a limited-edition Doernbecher Freestyle Collection with all profits benefiting the hospital. This year's patient-designers Jillian, Connor, Sophia, Tima, Quin and Ja'Kai joined the more than 100 inspiring Doernbecher patients whose incredible stories and artistic designs have helped changed lives since 2004. Across two decades of impact, the extraordinary partnership between Doernbecher and Nike has raised more than \$40 million.

"Our future lies in our children, and every year, Doernbecher Freestyle shows us that our future is in excellent hands," said Dana Braner, M.D., FAAP, FCCM, Credit Unions for Kids Chair in Pediatrics, physician-in-chief of Doernbecher and associate dean of children's health at OHSU.

Each Doernbecher Freestyle design tells a story about courage, hope and resilience, and represents the patient-designers' individual journeys, passions and personalities. The proceeds from their designs go toward supporting Doernbecher's mission to bring healing to children throughout the region. ■



Former patient designers and guests celebrate during the finale of Doernbecher Freestyle 20, held on October 18, 2024.

(Jordan Sleeth/OHSU EdCOMM)



LEARN MORE
Learn more about Doernbecher Freestyle at doernbecherfreestyle.org

“Our future lies in our children, and every year, Doernbecher Freestyle shows us that our future is in excellent hands.” — Dana Braner, M.D., FAAP, FCCM



WATCH



Doernbecher Freestyle started as an idea around a kitchen table. Twenty years later, we're celebrating the tremendous impact of this truly inspiring program. Learn more in this retrospective video at ohsuf.org/freestyle-20.



Oregon Health
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FOR HEALTH AND HOPE

When we come together, our impact multiplies. Your support helps to expand OHSU and OHSU Doernbecher's care for those who need it most, helping us build a healthier future for all.

Explore all the ways you can give the gift of health & hope this season at ohsufoundation.org/waystogive



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