Celebrating philanthropy's catalytic impact on Oregon Health & Science University and Doernbecher Children's Hospital | Fall 2022

Ignite *Magazine*

Inside the Issue

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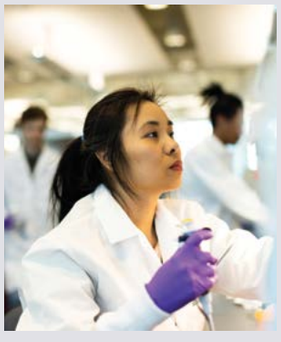

On the Cover:
Thuy Ngo, Ph.D., in her lab at the Knight Cancer Institute's CEDAR Center

Pedro Oliveira / PedrontheWorld.com

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Pedro Oliveira / PedrontheWorld.com

Dear Readers,

Welcome to *Ignite Magazine*: the Oregon Health & Science University Foundation's new, twice-yearly publication for sharing stories of inspiration, innovation and impact from across OHSU.

We named this publication *Ignite* because that's what philanthropy does: It provides fuel to the sparks of curiosity, compassion and courage at OHSU. We are excited to bring you stories of giving and the many different ways our donors ignite the power of philanthropy to advance OHSU's missions of healing, teaching, discovery and advocacy.

Ignite Magazine also represents a renewed direction in storytelling for the OHSU Foundation. The in-depth features, profiles and news updates will center the people of OHSU: the researchers striving to understand and cure; the students working hard to create a more accessible and equitable future of health care and science; the professionals who set the standard for care at our hospitals and clinics; the patients and families for whom we create a brighter tomorrow; and the philanthropists who are inspired to give back.

The people of OHSU — their impact, their passion and their hope — energize us at the OHSU Foundation every day. We hope you find the stories here as inspiring and meaningful as we do.

In this issue, you will find stories about cutting-edge research to improve early detection of illnesses; how OHSU Doernbecher Children's Hospital is fighting food insecurity; how one family's journey to find a diagnosis inspired them to partner with OHSU; and more stories of generosity and progress. You will also find the latest and greatest news from OHSU, as well as a look back at interesting moments from OHSU's history.

We also invite you to visit our website at **www.ohsufoundation.org**. Whether you prefer to read, watch or listen, the website has you covered with a plethora of stories of impact.

With excitement and gratitude,
The *Ignite Magazine* Editorial Team


Jordan Sleeth / OHSU EdCOMM

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Oregon Health & Science University
FOUNDATION

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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Igniting the Power of Philanthropy

As I reflect on the past few years, I am reminded of the important mission we pursue on behalf of the people we serve in the state of Oregon and beyond.

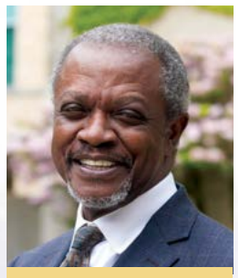
Throughout tumultuous and uncertain times, the support from our community has been a bedrock. Indeed, we have been effective and have had greater impact because of donors like you.

Responding to a global pandemic has tested our abilities and stretched our people like never before. Driven by empathy, compassion and a dedication to our missions, vision and values, OHSU members have led the state of Oregon's COVID-19 response while continuing to care for as many patients as possible, educating the next generation of health care professionals and pursuing research that will positively influence future health outcomes. These contributions have occurred despite increasing economic uncertainty; disparities and inequities even more exposed by the pandemic; a social justice reckoning; socio-political polarization; and historic environmental incidents such as wildfires.

What we have accomplished in research, education and patient care in the face of these challenges is certainly meaningful and rewarding, but it has taken a toll on our members and stressed the foundations of our university, as it has at other premier academic health centers nationwide.

We know donors share the same mission-driven passion that fuels the people who work and learn at OHSU. On the following pages, you'll read inspirational examples about the impact giving has on OHSU's ability to create a healthier future for all through early disease detection, food allergy-focused research and much more. Igniting the power of philanthropy will continue to be crucial to our post-pandemic recovery; indeed, it is now more important than ever.

Your ongoing support will be essential to OHSU's ability to continue excelling in teaching, healing and discovery. Thank you for your dedication to OHSU and your commitment to enhancing the health and well-being of those in Oregon and beyond.



"Your ongoing support will be essential to OHSU's ability to continue excelling in teaching, healing and discovery."

Danny Jacobs, M.D., M.P.H., FACS

Jordan Sleeth / OHSU EdCOMM

Joe Rojas-Burke / OHSU

Luiz Bertassoni, D.D.S., Ph.D., shows an example of a "bone in a dish." This engineered material replicates human bone tissue and is being used to explore disease processes and treat large bone injuries.

Stopping Disease Before It Starts

OHSU innovations in early detection are revealing ways to spot cancer, vision loss, dementia and other conditions at their earliest, most treatable stages.

by Michael MacRae, staff writer

"If only we had caught it earlier." It's a tragically familiar reaction when a patient receives a grave diagnosis. Our society's most dreaded and debilitating health conditions — cancer, heart disease, dementia, blindness — often take root years before they cause troublesome outward symptoms. Timely detection of the earliest signs of nascent disease can save precious time, allowing physicians to take quick action to solve problems before they start.

Although the life-saving promise of early detection is well-established, the needle-in-a-haystack search for clinically relevant early-stage disease indicators has been stymied by limitations in current screening technologies. But that's beginning to change. With the support of its donors, OHSU is at the forefront of a growing global community of scientists and clinicians developing a new generation of more precise, patient-friendly tools for early detection of cancer and other serious diseases.

Better Tools for a Closer Look

Today's routine screening methods for conditions such as breast, colon or prostate cancer have saved many lives. They can and do help medical teams pinpoint signs of disease while there is still time to take decisive action. But not always. Even the best of today's standard tests are not sensitive enough to find and precisely characterize the molecular-level precursors of disease before they develop the capability to threaten a patient's health. Consequently, too many patients are diagnosed only after their disease has progressed too far to be effectively treated.

At OHSU, researchers envision a very different approach to disease detection — one that is simple, painless and cheap, and that catches life-threatening diseases before they can cause problems for patients. Imagine a future when women's annual breast cancer checks are achieved as part of a routine blood draw. When a noninvasive vision test might also reveal invisible warning signs of heart disease or diabetes. Or when a neurologist can conclusively diagnose Alzheimer's disease while there is still time to slow its progression.

Sadik Esener, Ph.D., director of CEDAR at the OHSU Knight Cancer Institute

That future is based on the development of clinical tools and techniques that catch signs of diseases before they start so doctors can stop them before they cause irrevocable harm. Early detection researchers are focused on finding and characterizing more nascent indicators of disease than previously imaginable. In the process, they are opening the door to a future of precision medicine — where treatments are designed to address the unique biological drivers of each patient's illness.

This future is coming into reach, but it has not been easy. The pace of progress in early detection technology has been glacial, in part because federal research funding prioritizes the next blockbuster drug. However, recent and dramatic technological advances in genomic sequencing, supercomputing and high-resolution microscopes are creating exciting new possibilities in early detection research. Powerful image processing technologies are giving researchers a sub-molecular glimpse into the inner workings of human cells and tissues. Combined with modern techniques of DNA analysis, machine learning and artificial intelligence, these technologies are helping them learn to recognize and understand the early markers of disease progression, and to imagine creative ways to measure and treat it before it becomes lethal. Private support from individual philanthropists, corporations and private foundations has enabled many of the vital discoveries and developments that are accelerating the pace of progress in early detection.

Donor-Driven Discovery

Philanthropic support has helped OHSU develop unsurpassed expertise in this emerging field over the past 20 years and continues to play a vital role in moving promising ideas from the laboratory into clinical settings. Through the landmark Oregon Opportunity campaign from 2000 to 2007, OHSU enlisted donors and the state of Oregon to raise more than $500 million in private and public support to elevate OHSU's capacity for bioscience innovation and discovery. Donor dollars enabled OHSU to recruit exceptional researchers and construct the Hildegard Lamfrom Biomedical Research Building, providing state-of-the-art laboratory space and key enabling technologies in early detection such as advanced magnetic resonance imaging (MRI), bioinformatics, next-generation sequencing and biomedical engineering.

And that was just the beginning. OHSU drew international attention to the promise of early detection in 2013 through the Knight Cancer Challenge fundraising campaign, an unprecedented — and as yet unsurpassed — two-year philanthropic effort that raised $1 billion for cancer research at OHSU. The tangible result of this headline-making drive was two-fold: the seven-story, 320,000-square-foot Knight Cancer Research Building (KCRB) on OHSU's South Waterfront Campus and the creation of the building's principal tenant, the OHSU Knight Cancer Institute's Cancer Early Detection Advanced Research Center (CEDAR).

CEDAR's mission is to accelerate progress in the early detection of cancer — developing new, less-invasive tests to spot emerging tumors at the most treatable stage and exploring new ways to differentiate among harmless, slow-growing or potentially lethal tumors. CEDAR actively recruits exceptionally innovative scientists to join its ranks. This unique think tank within the Knight Cancer Institute is a bastion

of multidisciplinary team science where researchers at all levels of experience contribute their boldest ideas for high-risk/high-reward projects.

"We are at a pivotal scientific moment as many new approaches, such as fluid biopsies for detection and immunotherapies for treatment, are emerging," said CEDAR Director Sadik Esener, Ph.D., the Wendt Family Endowed Chair in Early Cancer Detection and professor of medicine in the OHSU School of Medicine. "We have built an outstanding team that leveraged the pioneering work that was already underway at OHSU, and rapidly established a global set of collaborations with industry and other leading academic institutions to play a pivotal international role in this area."

Esener's team is working to shorten the time it takes to move a great idea from the laboratory into the clinical setting. Using philanthropic dollars to emulate the fast "go/no go" decision-making approach of a private company, CEDAR puts new ideas to the test in rigorous proof-of-concept studies that rapidly determine which ones have potential and which do not. The best ideas are fast-tracked for further development while less successful projects are sent back to the drawing board or discontinued. The goal is to identify and invest in early detection technologies that can then be transferred to a spin-off company or industry partner for further development and regulatory approval — part of CEDAR's mission to support the growth of Oregon's bioscience business sector.

Synthetic Bones, Real Solutions

Many CEDAR-driven ideas are already poised for impact. Take, for example, the "bone in a dish." CEDAR member Luiz Bertassoni, D.D.S., Ph.D., and coworkers developed an engineered material that

Boone Speed / BooneSpeed.com

precisely replicates the structure and biological functioning of human bone tissue. Grown in a Petri dish, this synthetic copy has all the features of real, living bone — including a 3D mineral structure populated with bone cells, nerve cells and endothelial cells that organize themselves into functioning blood vessels. Bertassoni's team uses the "bone in a dish" as an experimental model to answer important questions in early detection research.

"With this model system, you can start asking questions about how bone cells attract different types of cancers, how cancer cells move into bone and how bone takes part in the regulation of marrow function," said Bertassoni, who is an associate professor of restorative dentistry in the OHSU School of Dentistry.

This work and similar projects inspired the launch of the Knight Cancer Precision Biofabrication Hub in the KCRB where, under Bertassoni's leadership, researchers will expand on tissue engineering technologies to build complex models of early cancers for research. The research has also led to the creation of a spin-off company, Humarrow, Inc., that hopes to commercialize a technology for generating exact, living copies of a cancer patient's unique bone marrow cells in an experimental model for testing leukemia therapies. By trying out different drug combinations on this synthetic marrow before giving them to the patient, doctors can find the optimal treatment for the patient without losing critical response time to trial and error, which often happens in oncology.

Upgrading the Annual Blood Draw

Another CEDAR member, Thuy Ngo, Ph.D., an assistant professor of molecular and medical genetics in the OHSU School of Medicine, has led the development of a promising blood test designed to reveal the early signs of two lethal cancers — liver cancer and multiple myeloma — in people known to be at risk for these diseases. The test looks for molecules called messenger RNA — or mRNA — which carry instructions from genes. These structures routinely "escape" from cells and circulate in the blood.

Rosalie Sears, Ph.D., the Krista L. Lake Chair in Cancer Research

If a cancer cell is present, those escaped mRNA will carry evidence of genetic instructions to create more cancerous cells.

Until recently, scientists had no way to capture this evidence, Ngo said. "A few years ago, not many people believed cell-free messenger RNA could be reliably detected in the blood because [mRNA] is prone to degradation. We found a way to handle it, and we are among the first to apply it in cancer and precancer early detection."

The research lays the foundation for developing inexpensive assays. "You don't need any fancy equipment for doing this," Ngo said. "Any central lab with standard equipment can do the work."

CEDAR's scientific reach extends beyond the basic science lab and into the community, through clinical trials and population-based research. On the strength of the Knight Cancer Institute's expertise and leadership in early detection, the institution was selected by health care innovator GRAIL, Inc., as one of only five U.S. test sites for a groundbreaking clinical study of an early detection blood test for multiple cancers (see story on page 12). Building on this expertise, CEDAR is launching new clinical trials with GRAIL and additional industry partners focused on either multicancer tests or disease-specific blood tests.

Jumpstarting Pancreatic Care

Beyond CEDAR, other researchers across OHSU are also seeking new approaches to early detection. For example, pancreatic cancer is a relatively rare disease, yet it has one of the highest mortality rates of all cancers. Why? Because it is almost always detected at a late stage. Pancreatic tumors can develop unnoticed for years because they cause no noticeable symptoms until they become dangerous and begin to spread to other organs.

"Over 80% of patients with pancreatic cancer have the disease detected too late to even have a chance at curative multidisciplinary therapy," said pancreatic surgeon Brett Sheppard, M.D., FACS, co-director of OHSU's Brenden-Colson Center for Pancreatic Care, the William E. Colson Chair of Pancreatic Disease Research and a professor and vice chair of clinical operations and quality for the Department of Surgery in the OHSU School of Medicine. "Our center is deep in research protocols to develop new blood- and saliva-based biomarkers to help detect pancreatic cancer earlier."

The perennial lack of progress in diagnosing and treating pancreatic cancer, pancreatitis and other pancreatic diseases inspired Norman and Linda Brenden and the Colson Family Foundation to join philanthropic forces in 2013 with a $25 million gift to establish the Center, which is co-led by Rosalie Sears, Ph.D., a professor of molecular and medical genetics in the OHSU School of Medicine and the Krista L. Lake Chair in Cancer Research. Since then, the Brendens have continued to support the center with gifts of $5 million, $15 million and, most recently, $10 million.

OHSU's robust program of early detection research isn't exclusive to cancer. Groups across the university are exploring innovative new ways to find and address other health problems before they start.

The Eyes Have It

Harnessing the power of advanced artificial intelligence and high-resolution ocular imaging, OHSU's Casey Eye Institute is poised to transform the early detection and

"Over 80% of patients with pancreatic cancer have the disease detected too late to even have a chance at curative multidisciplinary therapy."

Brett Sheppard, M.D., FACS

treatment of eye disease — and eventually other systemic health problems.

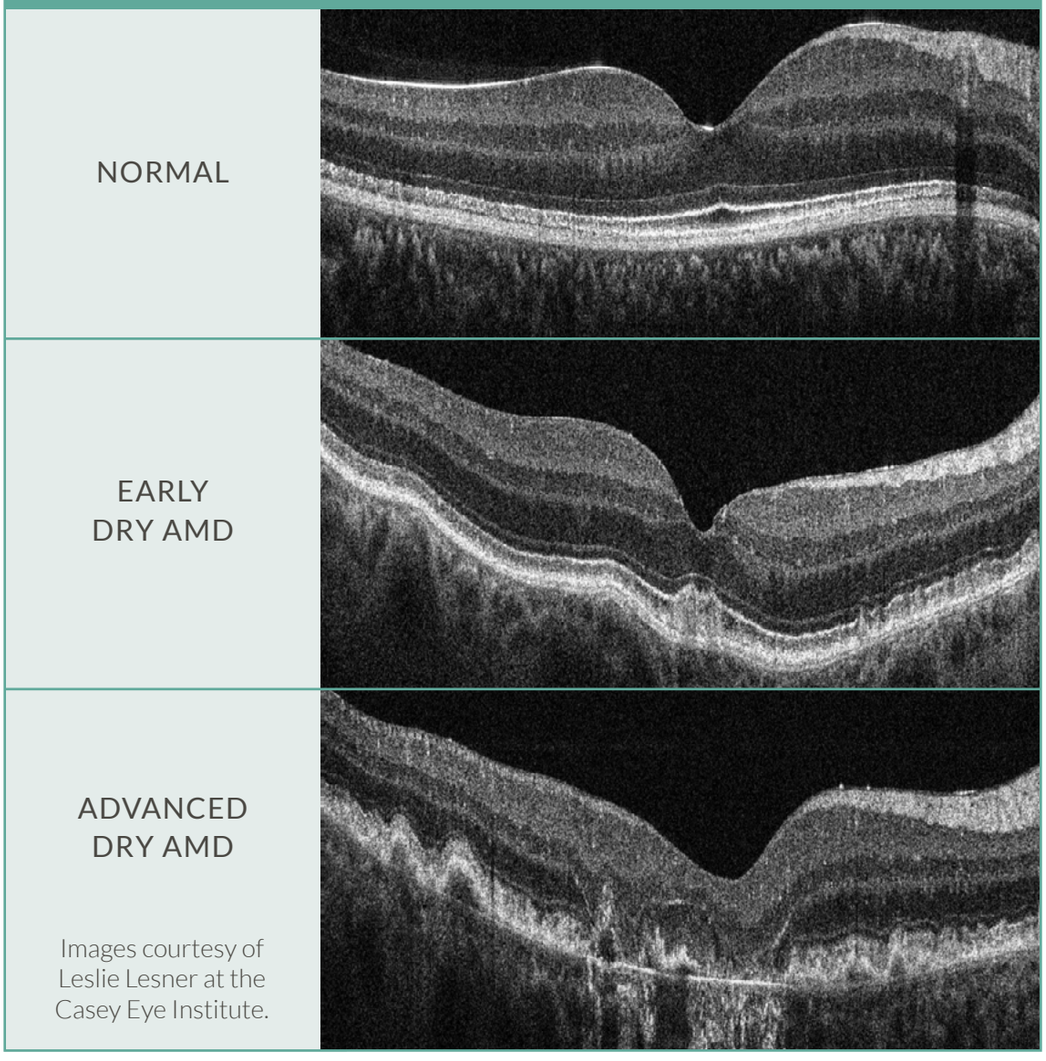
Optical coherence tomography (OCT), a critical ocular imaging technique developed by Casey Associate Director David Huang, M.D., Ph.D., is today's most effective method for capturing ultrahigh-resolution, 3D images of the retina. Ophthalmologists use OCT to diagnose many vision-threatening eye diseases, including the three leading causes of blindness: age-related macular degeneration (AMD), diabetic retinopathy and glaucoma. This technology's ongoing development, when combined with breakthroughs in artificial intelligence to recognize disease patterns in these images, is giving rise to the emerging field of "oculomics."

"The technologies we have developed can detect common eye diseases with exquisite sensitivity," Huang said. "But they can also be used to detect retinal amyloid plaques in Alzheimer's disease or changes in retinal blood flow due to cardiovascular diseases. We are ready to expand the reach of these technologies to a broader population." Huang is a professor of ophthalmology and biomedical engineering as well as the Martha and Eddie Peterson Professor of Ophthalmology in the OHSU School of Medicine.

In the decades to come, it is likely that oculomics will make it possible to catch the early warning signs of multiple sclerosis, Alzheimer's disease, stroke, cardiovascular disease, diabetes and many other disorders by examining the eye.

The concept of oculomics as a multipurpose diagnostic method is in its infancy and will require much more study before it is ready for routine clinical use. In the meantime, the underlying OCT technologies are making significant inroads against the most complex, challenging forms of AMD.

ULTRAHIGH-RESOLUTION OCT IN DRY AMD



Images courtesy of Leslie Lesner at the Casey Eye Institute.

Macular degeneration manifests itself in two distinct ways: the "wet" type, which is caused by the growth of abnormal blood vessels, and the "dry" type, which arises when retinal cells begin to atrophy (waste away). OCT's ability to visualize the processes behind wet AMD has enabled the development of a number of new treatments to stop vision loss. Going forward, the challenge is to develop new OCT methods for the less-detectable and harder-to-treat dry form.

"In dry AMD, our advances in imaging have made it possible to visualize the degeneration of the layers in the retina

David Huang, M.D., Ph.D., the Martha and Eddie Peterson Professor of Ophthalmology

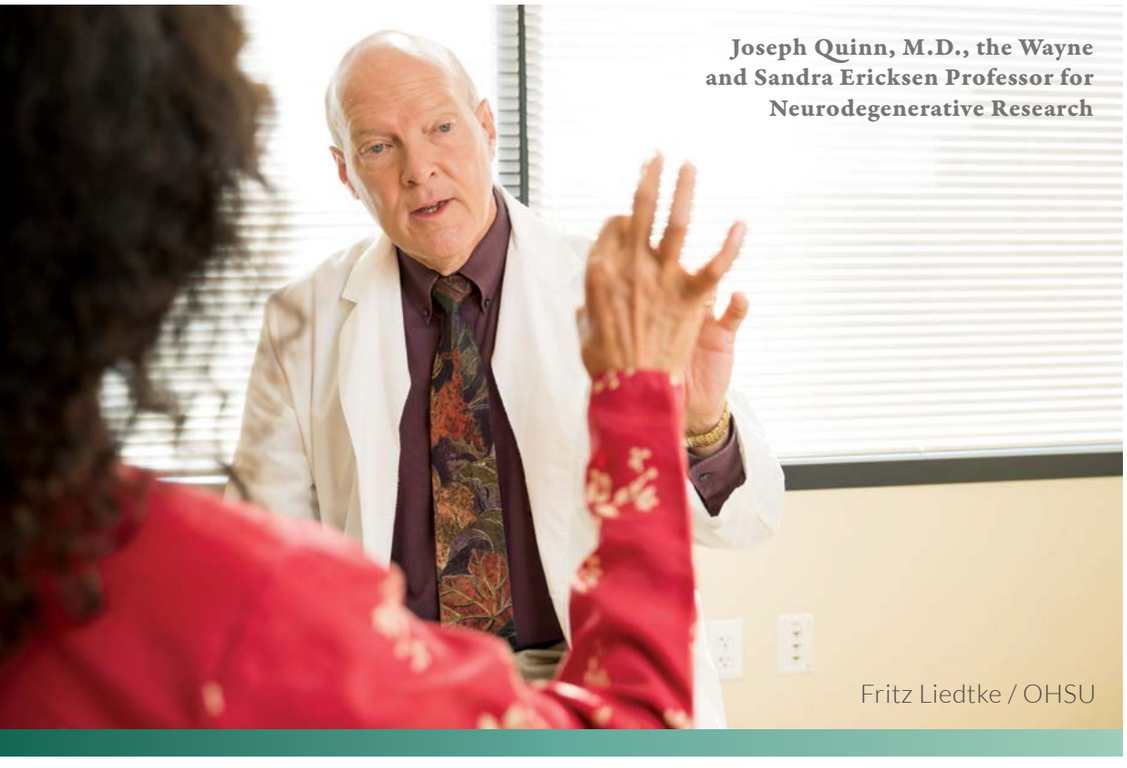
Julie A. Saugstad, Ph.D., a professor in the OHSU School of Medicine

before vision is affected. Detecting these changes is key to early diagnosis, as well as assessing the effectiveness of potential new drugs to treat dry AMD," said Huang, who holds the Martha and Eddie Peterson Professorship in Ophthalmology. His team continues to develop new OCT techniques that, combined with high-performance computing, will help patients retain the gift of sight throughout their lives.

Seeking Clues to Brain Disorders

Many OHSU researchers are striving to improve existing technologies. But some teams seek to create diagnostic tools for diseases that have defied early detection for generations. In the case of Alzheimer's disease — the nation's seventh leading cause of death and the most feared disease among older Americans — a conclusive diagnosis requires a post-mortem examination of brain tissue. Although there is no cure, studies show early intervention can significantly slow progression and improve the quality of life for both patients and caregivers. The Alzheimer's Association projects the disease will impact 12.7 million people over the age of 65 by 2050, underscoring the urgency to confront this growing public health challenge.

Julie A. Saugstad, Ph.D., a professor of anesthesiology and perioperative medicine and of molecular and medical genetics in the OHSU School of Medicine, is leading a multidisciplinary team studying novel biomarkers that could predict the onset of Alzheimer's and also help distinguish the disease from other forms of dementia. In collaboration with physician-researcher Joseph Quinn, M.D., holder of the Wayne and Sandra Ericksen Professorship for Neurodegenerative Research and director of the Parkinson Center and Movement Disorders Program in the OHSU School of Medicine, the team focuses on the possible use of microRNAs as a patient-friendly test for early Alzheimer's indicators. MicroRNAs are structures that work together with messenger RNA to regulate gene expression. Though existing primarily within cells, messenger RNA, microRNAs and other non-coding RNAs have been detected in most body fluids. MicroRNAs found in cerebral spinal fluid may hold clues about the abnormal chain of events in the central nervous system that give rise to Alzheimer's and other dementias. The team is focusing on identifying and evaluating a number of microRNA-based biomarkers through basic research and clinical trials.



Joseph Quinn, M.D., the Wayne and Sandra Ericksen Professor for Neurodegenerative Research

Fritz Liedtke / OHSU

A Philanthropy-Fueled Revolution

These dedicated teams, novel studies and game-changing discoveries are only a portion of OHSU's programs in early detection research. Though there are a variety of approaches and aims, each project demonstrates the power of philanthropy to open new doors in biomedical research. Whether by creating endowed chairs and professorships that help OHSU retain and attract top research talent; supporting the acquisition of state-of-the-art research equipment; establishing dedicated research centers; funding innovative research; or providing financial aid for students and trainees; OHSU donors are closing the innovation gap and opening up limitless life-saving possibilities.

The Promise of Early Detecton: How One Blood Draw Found Cancer

Joyce Ares in her home. Fritz Liedtke / OHSU

Scan QR CODE
to read more of Joyce's story

Oregonians like Joyce Ares are living proof of the power of early detection and the life-saving benefits OHSU's leadership in the field brings to the state.

Joyce's early detection story begins with a visit to OHSU's Casey Eye Institute for help with a retinal condition. While there, she learned of a number of opportunities to participate in medical research studies — one of the hallmarks of an academic health center like OHSU.

"I believe healthy people need to participate in medical research," she said.

As it turns out, Joyce had cause to worry about her health — a fact that might have gone unnoticed had she not signed up for the PATHFINDER study at the Knight Cancer Institute. This trial evaluates an experimental blood test developed by GRAIL, Inc., that shows promise for detecting the early presence of multiple cancers. If cancer signs appear, the test can identify the location in the body the signal may be coming from.

Concerning signs on Joyce's initial test prompted additional testing that showed, to her surprise, that she had cancer. OHSU researchers and clinicians zeroed in on the location and type of her cancer: Hodgkin's lymphoma in a single lymph node in her armpit. Because Joyce's cancer was caught so early, her course of chemotherapy and radiation was shorter than it might have been, and follow-up tests every three months reveal she is now cancer-free. She is now back to her garden and other favorite activities.

"I didn't think they were going to find cancer," she said, "But the idea of the test is to find cancer early so it can be treated before it's life-threatening. If you can find cancer in its early stages, you are so far ahead of the game."

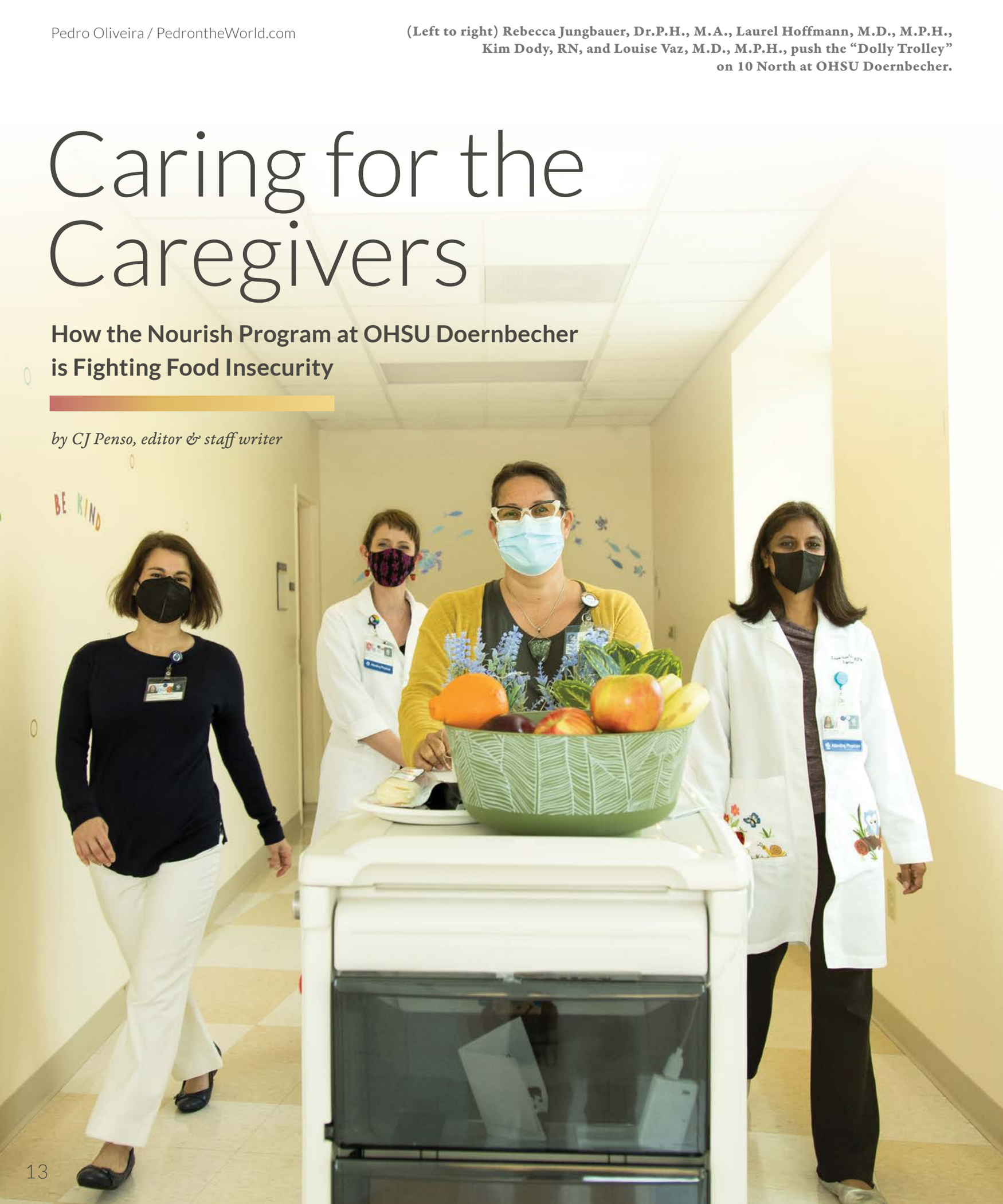
Pedro Oliveira / PedrontheWorld.com

(Left to right) Rebecca Jungbauer, Dr.P.H., M.A., Laurel Hoffmann, M.D., M.P.H., Kim Dody, RN, and Louise Vaz, M.D., M.P.H., push the "Dolly Trolley" on 10 North at OHSU Doernbecher.

Caring for the Caregivers

How the Nourish Program at OHSU Doernbecher is Fighting Food Insecurity

by CJ Penso, editor & staff writer



One evening in 2017, Mary* brought her child to the emergency department at OHSU Doernbecher Children's Hospital. After hours of tests and meetings with doctors, her child was admitted.

It was late, the cafeteria was closed at that hour and Mary had skipped dinner while they were in the ER. Morning came, but she didn't want to leave her child's bedside because she was scared she'd miss the doctors on rounds. More than 16 hours passed before she finally ate.

Mary's story is one of hundreds that inspired the creation of the Nourish program at OHSU Doernbecher.

Evidence and Experience

Nourish is the brainchild and passion project of Louise Vaz, M.D., M.P.H.; Laurel Hoffmann, M.D., M.P.H.; Kim Dody, RN; Rebecca Jungbauer, Dr.P.H., M.A., and Anne Bateman, RN (ret). Its mission is three-fold: Prevent hunger for caregivers during hospitalization; destigmatize the experience of needing food resources; and identify families experiencing food insecurity at home to connect them to community food resources that can ease their transition to outpatient care. The Nourish team runs the program as volunteers outside of their respective roles at OHSU.

* Name changed

Nourish emerged from the Most Vulnerable Project (MVP), a research study Vaz and several Doernbecher collaborators started in 2017 with funding from the Friends of Doernbecher and the Collins Medical Trust. Vaz is an infectious disease specialist at Doernbecher, as well as an associate professor of pediatrics (infectious diseases) in the OHSU School of Medicine. Her research has focused on exploring social determinants of health that impact outpatient care.

MVP surveyed 265 patient families about their experiences at Doernbecher and the non-medical challenges they faced while their children received inpatient care. What the MVP found was daunting: 1 in 3 families at Doernbecher are unable to afford basic needs — such as food, housing or utilities — at the time of their child's hospitalization.

"It was humbling when you see it on a piece of paper," Vaz said. "I think we all have our individual stories, but we don't take the big context into it."

Vaz and the MVP team turned to Bateman for insight on how to help. At that time, Bateman worked with the Quality Safety Team, which is responsible for involving patients' caregivers, or "parent-partners," in the policies and programs at Doernbecher. Together, they conducted focus groups with parents and asked them to rank their unmet needs.

Parents overwhelmingly identified hunger as their greatest challenge.

WHAT ARE SOCIAL DETERMINANTS OF HEALTH?

Many factors can impact a person's health. While medical care is a major component, the general agreement is that it contributes to only 10% to 20% of a person's overall well-being. Social Determinants of Health (SDOH) is the term for those other 80% to 90% of factors. The U.S. Centers for Disease Control and Prevention (CDC) defines SDOH as "conditions in the places where people live, learn, work and play that affect a wide range of health and quality-of-life risks and outcomes."

SDOH factors can be strengths, such as consistent employment or access to school gardens, as well as detriments, such as unstable housing, incarcerated parents or environmental pollutants.

Hoffmann explains, "I think of them as factors that are outside of my immediate control to help the health of my patients and families."

> **"Every family at Doernbecher is food insecure...because no parent wants to leave their child's bedside for even a minute."**

Rebecca Jungbauer, Dr.P.H., M.A.

Food Insecurity and Patient Care

Food insecurity is a pervasive social issue both nationally and within Oregon. A child's hospitalization often exacerbates food insecurity for families and can create insecurity among those who haven't experienced it before.

"Every family at Doernbecher is food insecure," Jungbauer said. "Whether they're poor or wealthy, because no parent wants to leave their child's bedside even for a minute. They would rather go without food themselves than leave their child."

Having a child in the hospital is an inherently stressful experience. Parents are often scared: that they'll miss a doctor on rounds, that they'll get bad news or that they aren't equipped to handle their child's changing needs. The Nourish team noticed that caregivers sidelined their self-care in order to be present for their children.

During the MVP focus group, one mother confessed, "I would take what [my son] didn't eat — it was pretty much glossed over — that is how I ate for two weeks."

Many patients are too young to notice or understand when their caregivers forego food, but every patient is impacted when their caregiver goes hungry. When caregivers don't eat, it impairs their ability to be fully present for their children during a critical time. Hunger affects the ability to understand information, plan ahead and advocate for patients with staff.

Vaz and her team decided they needed to do something about hunger among caregivers. They knew that by tackling this issue while families are at Doernbecher, they could lay the foundation for higher quality care in outpatient settings.

"We felt motivated to move on something that we knew was a problem. We were trying not to feel paralyzed by the gravity of the problem or how big and interrelated it is," Vaz said. "Moving forward and making a difference with one thing can have cascading effects that might impact a family in a positive way. So even though it seemed daunting, we wanted to try something, however small it was. And that's where we are with Nourish."

So, they took action.

Filling the Eligibility Gap

Today, if you visit inpatient units 9 North, 9 South or 10 North, the Pediatric Intensive Care Unit (PICU) or the emergency department at Doernbecher, you might see an unassuming cabinet with

FOOD INSECURITY IN OREGON

According to the Oregon Food Bank, 1 in 8 Oregonians faces hunger. That means more than 500,000 of our neighbors struggle with food insecurity. "Food insecurity" is the state of being without reliable access to sufficient quantities of affordable, nutritious food.

Food insecurity in Oregon has been exacerbated in recent years by the COVID-19 pandemic, economic fluctuations and environmental emergencies such as wildfires, ice storms and toxic algae blooms. Food insecurity and hunger are common SDOH risk factors.

Food insecurity is prevalent, but often "invisible," which means it can be hard to track and intervene. The OHSU community is taking action to combat food insecurity among students with the creation of the OHSU Food Resource Center.

a plaque that reads "Annie's Pantry." The pantries are unlocked and stocked with non-perishable foods.

They're the lasting legacy of Bateman, their namesake, whose determination to get families fed before her retirement in 2020 created the first eligibility-free caregiver hunger program at OHSU. Any family can access the array of foods in the pantry. The only requirement: having a family member who is currently receiving care at Doernbecher.

The Nourish program manages these pantries as part of its mission to combat food insecurity.

Doernbecher currently has food programs available for some of the families in need. "Fulton Trays" are available for caregivers who live more than 50 miles away or who are currently breastfeeding the patient. Yet Dody notes that the majority of people using Annie's Pantries are ineligible for any program, such as families who live in Portland but are unable to afford transportation home and mothers who are breastfeeding a patient's younger sibling. This eligibility gap is where the Nourish program sees the greatest room for change.

"We saw the ways people were falling through the cracks and going hungry," Dody said. "We just want to make sure that everybody is taken care of."

The Nourish team received seed funding for the pantries from a private donor with a surprising connection. For many years, Bateman assisted with the palliative care of an adult patient. That patient's daughter, in a gesture of gratitude and support, made a one-time gift of $5,000 to help get the pantries created and filled. This generous donation ensured that Bateman could achieve her goal of establishing the pantries before her retirement.

Dody takes stock of the available food in the Annie's Pantry in the family lounge in 10 North.

However, Dody, who now fills Bateman's role on the Quality Safety Team, says the Nourish team has more fundraising to do. The pantries have been so successful that current demand required the program to spend the entirety of the seed funding within four months.

Rite Aid Healthy Futures Exceeds Expectations

In October 2021, the Nourish team applied for $95,000 from the Rite Aid Healthy Futures Connecting Communities grant program. They hoped to use those funds to increase the accessibility of the pantries, create universal food insecurity screenings for patient families and include fresh foods in their offerings.

Rite Aid Healthy Futures counteroffered with $140,000 — a rare decision in grant-making.

"We couldn't believe it," said Vaz. "I think someone there recognized our efforts and saw, maybe, a similar vision."

This grant has empowered the Nourish team to start building a sustainable future for the program. They opened the newest Annie's Pantry in the emergency department and established the "Dolly Trolley" mobile pantry that reaches parents in isolation. They are also ordering refrigerators, which will enable them to include more fresh foods in their offerings.

Most critically, they will hire a program coordinator. This person will be responsible for creating partnerships with ▶

“Moving forward and making a difference with one thing can have cascading effects that might impact a family in a positive way.”

Louise Vaz, M.D., M.P.H.

community organizations like the Oregon Food Bank and Veggie Rx; collaborating with Medicaid brokerages on meal reimbursements; and ultimately building a program that will continue to support caregivers long after the Nourish team joins Bateman in retirement.

They also see the Nourish program as an opportunity for Doernbecher on the national stage.

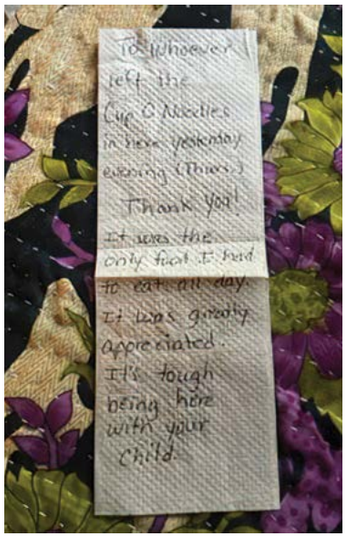
“This could really launch the importance of [this work] out to other hospitals and have a ripple effect with Doernbecher as the national leader and model,” Jungbauer said. “That’s a lot of future benefits from just a single grant.”

Nourish and the Future

Vaz, Hoffmann, Jungbauer and Dody dream big, but they are also realists. They understand that, given fiscal challenges, they must continue to seek other ways to sustain their program, including philanthropic support. They regularly apply for grants and have submitted another grant application to Rite Aid Healthy Futures.

“If somebody wants to give us unlimited money, we will do the most amazing things,” Jungbauer said with a laugh. “But for now, we’re doing what we can with what we have.”

What they can do today is visible in the wards of Doernbecher through the grateful smiles and anonymous notes from parents who no longer need to choose between going hungry and leaving their sick child’s bedside.



A handwritten note left for Kim Dody, RN, by a grateful parent. It reads, *“To whoever left the Cup-O-Noodles in here yesterday evening (Thurs.): Thank You! It was the only food I had to eat all day. It was greatly appreciated. It’s tough being here with your child.”*

Pedro Oliveira / PedrontheWorld.com

Finding New and Joyful Connection After Autism Diagnosis

Five-year-old Hawk Lamb is autistic and struggles to use language in a conventional way, but he's an excellent communicator. His parents, Dowry and Nate Lamb, went to see Hannah Sanford-Keller, M.S., CCC-SLP, a speech pathologist at OHSU's Child Development and Rehabilitation Center (CDRC).

"Hannah set a positive tone right from the start," said Dowry. "It was the way she spoke about being neurodivergent, what it means. She told us there were many families out there going through the same thing and provided the baseline information we needed to make sure that Hawk could progress to the best of his ability. It felt more empowering than gloomy."

Hawk is anything but withdrawn and isolated these days. Hawk's natural persistence, combined with his family's support and work with Sanford-Keller, has empowered him to use new and joyful ways to interact with the world.

Scan >
to read Hawk and Hannah's full story

White Coat Day Resumes In-Person After Three-Year Hiatus

On Aug. 12, 2022, the OHSU School of Medicine welcomed its newest group of medical students in person for the first time since the start of the coronavirus pandemic. White Coat Day is a long-standing tradition for new students. It consists of a ceremony where incoming students symbolically slip on their white coats for the first time.

"This ceremony is a remarkable rite of passage," said David Jacoby, M.D., interim dean of the OHSU School of Medicine. "It's the moment when students cross over from the sustained effort of getting into medical school to actually joining an amazing group of peers and a team of faculty and staff who will now walk alongside them. For us at OHSU, this ceremony is about renewal of purpose, a reminder that we are not only here to advance health and care for our patients. We have the honor of nurturing the next generation of physicians."

OHSU students during the 2022 White Coat ceremony

THE CLASS OF 2026 IS THE MOST DIVERSE ONE IN OHSU HISTORY:

- **88%** are Oregonians or of Oregon heritage
- **69%** identify as female
- **36%** come from a disadvantaged background
- **33%** come from racial or ethnic backgrounds other than white
- **25%** come from a rural background
- **23%** come from a racial or ethnic group underrepresented in medicine
- **2** have completed military service

Generous Gift Establishes First-of-its-kind Food Allergy Center

Family is everything to Dale and Julie Burghardt. So, when their grandson, Harrison, suffered a severe allergic reaction to eating oatmeal at 5 months of age, the experience was traumatic for the entire family.

The Burghardts, who hail from Molalla, Oregon, now reside in Las Vegas while spending their summers being close to their grandkids in Lake Oswego. They recalled the stress of being on the phone with their daughter back home in Oregon as Harrison was rushed to Doernbecher Children's Hospital.

"We were 1,000 miles away as our daughter, Kelsey, was driving our grandson to the emergency room, talking her through it and keeping her safe," said Dale Burghardt. "It's a feeling of helplessness and a lot of stress."

Over the next two months — marked by two more terrifying episodes, trips to the emergency room and a food trial plan developed by an OHSU dietician — their pediatrician was able to diagnose baby Harrison with food protein-induced enterocolitis syndrome (FPIES).

Unlike more commonly known peanut, tree nut or seed allergies, FPIES can occur with foods much more common for babies, such as oatmeal, rice, sweet potatoes, bananas or green beans. Most children eventually grow out of this condition. But in the meantime — as the Burghardt family learned — the process of diagnosing FPIES and managing symptoms such as severe vomiting and diarrhea can be dramatic and traumatizing for families.

"It was such a relief just knowing what was wrong so Kelsey and her husband, Zach, could develop a roadmap of how to deal with it," Dale Burghardt said.

The Burghardt family's very personal experience with such a severe, hard-to-diagnose food allergy inspired their interest in helping other families like theirs. After exploring options with the OHSU Foundation, the couple made a $5 million philanthropic commitment to establish the Burghardt Food Allergy Center in the OHSU School of Medicine. As a result, Oregon's only academic health and research institution will become the home of the Pacific Northwest's first and only comprehensive food allergy-focused center for research, patient care, community outreach and provider education.

Dale & Julie Burghardt outside of their home with Shyam Joshi, M.D.

Jordan Sleeth / OHSU EdCOMM

Their generous gift will support startup costs for the center, including establishing a new endowed chair for an exceptional faculty member specializing in food allergies, enhanced clinical services, new research projects and clinical trials. The center will be located within the current OHSU Allergy and Immunology Clinic led by Shyam Joshi, M.D., an assistant professor of medicine and head of allergy and clinical immunology at OHSU. It is expected to open in 2023.

"It's going to be game-changing, not only in our region, but for the country," Joshi said.

The center's Portland location will enable OHSU to serve patients across Oregon, Washington, Alaska, Idaho and Montana. According to Joshi, the Burghardt's gift will also advance OHSU's efforts to attract top talent, deepen its research into the

prevalence of food allergies, advance the search for improved treatments and educate providers so they can diagnose and treat food allergies more quickly and effectively.

"Our number one motivation was to help spare other families from going through the stress and anxiety our family went through before finding out Harrison had FPIES," Dale Burghardt said. "We reached out to OHSU because of its great reputation, the fact that it's the largest teaching hospital in the state and because we felt we had the potential to achieve the greatest results working with OHSU. We were extremely happy when OHSU quickly shared their vision for a food allergy center, which will have a much broader impact than we had ever envisioned."

Today, Harrison is a healthy 5-year-old who recently started kindergarten in fall of 2022.

"He handles not being able to eat some foods that other kids are eating really well," Julie Burghardt said. "He just says, 'I'm allergic,' and moves on."

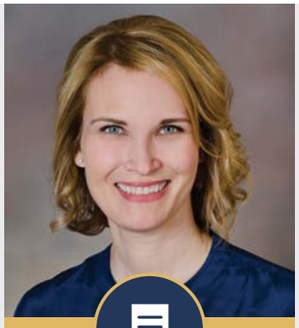
Reflecting on the impact the center will have on other families and their health care providers navigating food allergies, Dale Burghardt said, "We felt we were in the right place at the right time to make the center happen. We were fortunate to be successful in our business, and now it's our time to give back."

New Director of the Center for Women's Health Aims to Close Reproductive Health Disparities

The School of Medicine named Maria Rodriguez, M.D. '04, R '08, M.P.H., as the new director of the Center for Women's Health. As a professor of obstetrics and gynecology in the OHSU School of Medicine and a physician-scientist, Rodriguez specializes in the intersection of health, economics and policy.

"At the Center for Women's Health, we have the privilege of caring for people — mainly girls and women — through key transitions and pivotal moments in their lives," said Rodriguez. "I'm excited to lead the Center for Women's Health because there remain systemic factors and inequities within our society that drive disparities in girls' and women's health across the lifespan. Our mission includes direct clinical care, research, advocacy and education."

With Rodriguez's leadership and commitment to health equity and systems improvement, the center positions its strengths as a leader in clinical care, education, policy and research at this critical juncture in the history of women's health care in the U.S.



Scan >
to read Dr. Rodriguez's full interview

School of Nursing Distinguished Alumni Award Recipient Leans Into Loving Service

School of Nursing Distinguished Alumni Award recipient Lydia Bartholow, B.S. '10, M.N. '12, D.N.P. '16, PMHNP, CARN-NP, has committed her entire professional career to providing health care for vulnerable and marginalized populations. As the associate medical director of Portland's Central City Concern Substance Use services, Bartholow is dedicated to delivering health services to people experiencing houselessness, substance use disorders, toxic stress and oppression.

Bartholow says that studying at OHSU strengthened her interest in caring for underserved populations: "It really gave me some good scaffolding to think about how to do this work."

Offering mental health care to these communities can often lead to burnout for health care providers. She likens her work to a sort of spiritual journey and advises that "leaning into lovingkindness sort of diverts the energy from going towards burnout to instead going toward a commitment to serving a really vulnerable community of people."

Scan >
to read about Lydia's impactful career

A Gift 80 Years in the Making

Brothers Richard Cook, 87, and McKenzie (Ken) Cook, 85, literally grew up in the shadow of OHSU on Marquam Hill. The Cooks' connection to OHSU Doernbecher Children's Hospital began when Ken was struck by a car and received care on that familiar hill.

"As a young lad of about 4 years of age, I ran across the street to follow my brother Richard and got struck by a car on Veteran's Hospital Road," recalls Ken.

That experience with OHSU inspired the brothers to make planned gifts to Doernbecher. Both Richard and Ken have completed estate plans that commit a portion of their wealth to Doernbecher. Their gifts will contribute to life-saving care for the youngest and most vulnerable of patients in years to come.

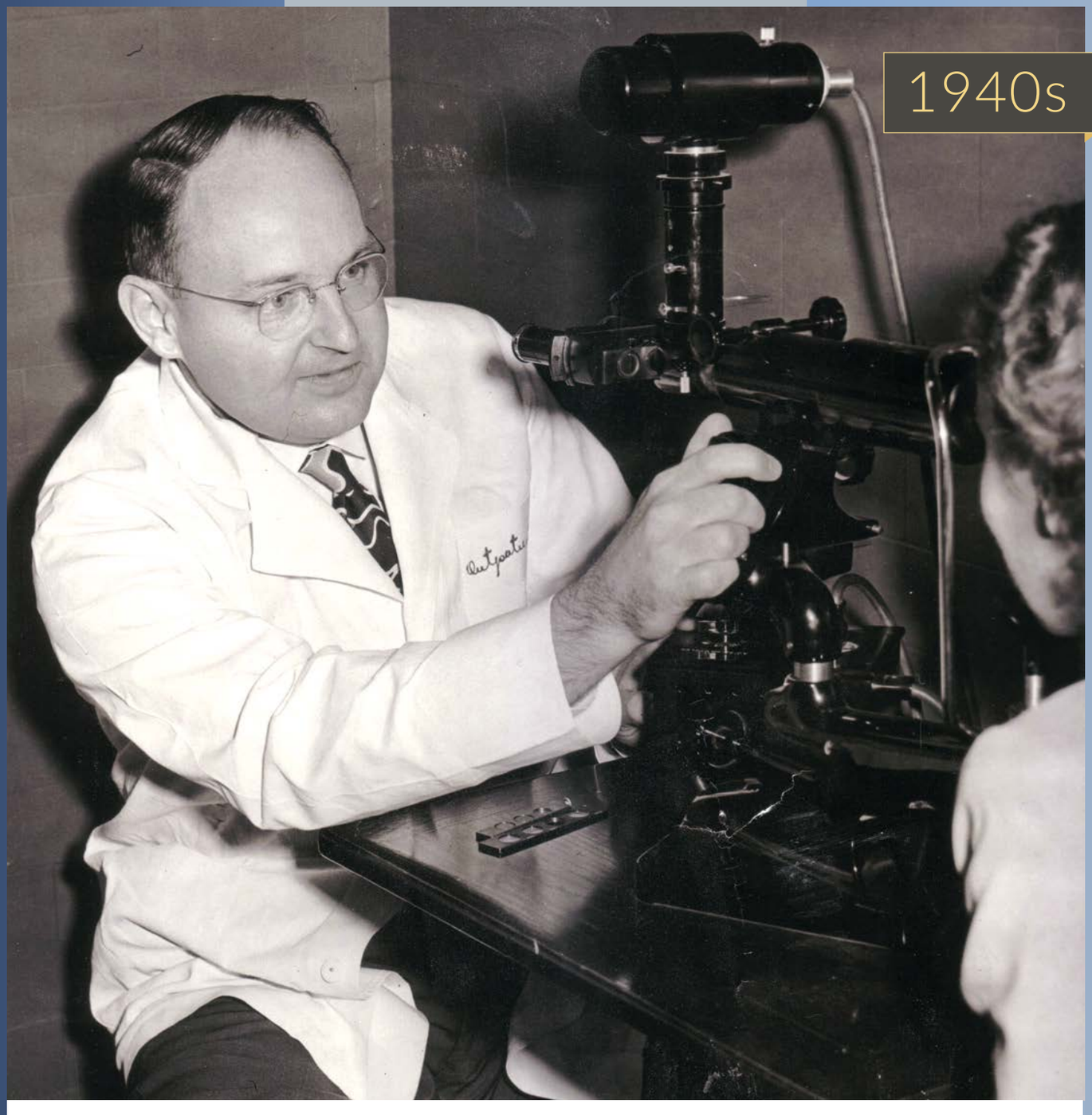
"Planned gifts can truly make a difference in the lives of our patients and their families; hearing their story and meeting the brothers shows how one experience in a hospital can change the trajectory for a person. Ken and Richard's gift ties in the legacy of their story into the fabric of Doernbecher," says Dana A.V. Braner, M.D., FAAP, FCCM, Credit Unions for Kids chair, professor and chair (Department of Pediatrics), physician-in-chief, OHSU Doernbecher Children's Hospital.

The Cooks' gifts are in memory of their aunt, Sarah Cook, who was the head nurse at Doernbecher Children's Hospital.

Richard Cook (left) and Ken Cook (right) pose with the OHSU Foundation's Sasha Steiner at Doernbecher Children's Hospital

Scan >
to hear Ken and Richard share their story

A Look Back : Early Detection



Kenneth C. Swan, M.D., photographs an anonymous patient's fundus — back of the eye — using an ophthalmoscope. The Bausch & Lomb binocular indirect mounted ophthalmoscope in this picture was considered cutting edge for its time. It allowed ophthalmologists a magnified and three-dimensional view into the eye, which they used to detect eye diseases such as glaucoma and macular degeneration. Residents fondly referred to this model as "The Bazooka" due to its size and difficulty of use.

Image and information adapted from the Historical Collections & Archives exhibit, "A Selected History of Retinal Illustrations, 1851–1900 and Beyond," curated by Donald L. Blanchard, M.D., for the OHSU Library. Thank you to Meg Langford of the OHSU Library for her research and assistance.

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Mark your calendars for **November 29**
giveday.ohsufoundation.org **Giving Tuesday** *kicks off the season of giving!*

THANK YOU, family

Family isn't always about who we are related to — it's the people in your life who lift you up; the ones who stick by you when you need them most and empower you to live your best life.

That's the kind of family we've created through Doernbecher Freestyle.

On October 28, the Doernbecher Freestyle family of donors, health care providers, Nike visionaries and patient-designers came together to celebrate all we've accomplished together.

Since 2004, this remarkable partnership between OHSU Doernbecher Children's Hospital and Nike has raised more than $31 million to help save lives, develop new treatments and provide the best care for kids.

We are so grateful for your support.

Jaren, Dario, Riddhi, Kylee, Emerson and Coley revealed their one-of-a-kind collections at an unforgettable Freestyle event celebrating hope, perseverance and a community so supportive, it's family.

Look for the Doernbecher Freestyle XVIII Collection available in early 2023!

To learn more about Doernbecher Freestyle, visit doernbecherfreestyle.org.

DOERNBECHER Freestyle