CORPS OF DISCOVERY

Creating fellowship and shared purpose in the lab
A disruptive force for the public good

Every issue I share a message with our readers. This time I’ve invited Dr. Joe Robertson, OHSU president and distinguished alumnus of the school, to give his perspective. I could not have said it better. Thank you.

— Mark Richardson, M.D., MBA, dean, OHSU School of Medicine

Dean Mark Richardson invites you to learn more at www.ohsu.edu/som and contact him at somdeanoffice@ohsu.edu.

FROM THE DEAN

Dr. Joe Robertson

ON THE COVER

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PHOTO

Brian DalBalcon

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A Ph.D. graduate fashions a career in graphics.
Evolution of the Ph.D.
By Rachel Shafer

Attracting and educating high-quality Ph.D. students is an essential part of the OHSU School of Medicine’s mission. While the school’s Ph.D. programs are very successful by traditional measures – publishing papers and landing jobs, for example – the broader landscape for graduate education and biomedical research around the U.S. is shifting in dramatic ways. Funding sources that support the training of Ph.D. students are diversifying, creating a funding environment that is more competitive and less predictable. Jobs for Ph.D. graduates are increasingly found outside of academic labs. Industry scientist. Health policy analyst. Patent attorney. Data architect. Science writer. And the practice of science itself is changing. Today, the solitary investigator working on a highly-specific question is shifting to team-based, transdisciplinary approaches focused on broad problems.

To continue successfully preparing scientists for the future needs of Oregon and the nation, OHSU’s Ph.D. programs must adapt.

Enter creativeIDEAS (Innovating Doctoral Education for Aspiring Scientists). This committee of graduate faculty, students and postdocs is leading an initiative to reimagine the school’s Ph.D. programs in ways that align with anticipated changes.

“What the committee’s task is to figure out how to continue to train students to be successful scientists, yet prepare them for the extended range of careers available to them, as well as use this opportunity to enhance collaborative research projects at OHSU,” said Robert Dvoušín, Ph.D., committee chair and professor of physiology and pharmacology in the OHSU School of Medicine. The committee will analyze existing programs, collect ideas and gather input from a variety of stakeholders – including alumni – and study peer institutions. At the end of the year, it will propose a set of recommendations to the school community.

One additional goal of creativeIDEAS is to identify needed innovations that will also help attract philanthropic dollars for an endowed fund to support students.

“This is a once-in-a-lifetime opportunity to design and build the graduate program of our dreams, one that is exciting and innovative, that takes advantage of our research and clinical strengths and that will meet the needs of our students and faculty for years to come,” said Allison Fryer, Ph.D., associate dean for graduate studies in the OHSU School of Medicine.

Have ideas? Want to get involved? Email Jessica Walter at walter@ohsu.edu.

Reimagining early detection of cancer
By Joe Rojas-Burke

The OHSU Knight Cancer Institute has named a leader for its major new initiative to detect life-threatening cancers early and precisely.

Sadik Esener, Ph.D., is one of a very small number of scientists with the skills, experience and track record of innovation necessary to guide the initiative to success, said institute director Brian Druker, M.D.

“Our goal requires that we completely reimagine early detection,” Dr. Druker said. Dr. Esener, an engineering professor from the University of California, San Diego, has made significant contributions in diverse fields: nanotechnologies for delivering cancer drugs, biosips and microfluidic devices for analyzing blood and advanced optical applications in computing. He directed a Center for Cancer Nanotechnology Excellence funded by the National Cancer Institute.

The early detection initiative was made possible by OHSU’s successful completion of the $1 billion Knight Cancer Challenge from Phil and Penny Knight. Dr. Esener will transition to OHSU this summer.
The path of possibility

Written by Tiah Lindner, photos by Steve Hambuchen

Independence, Ore., sits on a wide, lazy bend in the Willamette River in the green-until-it-hurts farmlands of the central Willamette Valley. With a population of around 8,000 and a downtown brimming with history, Independence is quintessentially small-town America.

However, for Independence native Andrea Nuñez Morales, the child of immigrants from Michoacán, Mexico, the dream of becoming a physician seemed far away from the vantage of that same postcard-pretty town.

“My parents only had the opportunity to go to sixth grade in Mexico, and I’m the oldest of my siblings, so in some ways I had to figure out a lot of things on my own,” she said.

The experience is the same for many first-generation college students who succeed in getting a college education, but are left feeling lost once the time comes to leverage an undergraduate degree into a career.

Even as a pre-med and biochemistry student at Willamette University in nearby Salem, Ore., Nuñez Morales felt overwhelmed by the options.

“It wasn’t until college that I realized that people went on mission trips abroad, that they did research in the summer and pursued internships,” she said. “It was stressful to hear about all the things that I should have already started doing. I felt behind.”

But Nuñez Morales was tenacious. She started exploring medical careers as many college students do, through volunteer and entry-level medical jobs, first as an emergency medical responder and later as a medical scribe and Spanish medical interpreter.

She also attended the OHSU Summer Equity Research Program the summer between her junior and senior year of college. The program, run by the OHSU Center for Diversity and Inclusion, is an eight-week experience designed to give diverse students an immersion in research settings. Paired with clinicians, scientists and graduate students, college students gain hands-on involvement with research as well as the opportunity to explore individual career paths.

“Growing up, I didn’t encounter many Latino physicians,” Nuñez Morales said. “That’s part of the reason why the Summer Equity Program was significant. My peers and I had the opportunity to shadow and work with OHSU researchers and physicians, many of whom come from backgrounds similar to ours.”

She gained from the OHSU program much more than she anticipated: vital connections to mentors and role models and a more extensive understanding of the career options available to her.

Today, Nuñez Morales is an M.D. student in the OHSU School of Medicine, part of the second class in the school’s transformed curriculum, YOUR M.D., and active in the Latino Medical Student Association.

“As an Oregonian, I always wanted to attend OHSU,” Nuñez Morales said. “The Summer Equity Program showed me why I wanted to be here and how someone from my background could take that desire from dream to reality.”

After finishing medical school, Nuñez Morales hopes to put her language skills to use serving the Spanish-speaking community in Oregon.

“At home

Nuñez Morales returns home often on weekends to visit her family in Independence, Ore. She worked in nearby agricultural jobs, along with family members, before pursuing premedical experiences.
Prescription for an Epidemic

By Harry Lenhart

OHSU and its graduates are finding ways to slow Oregon’s opioid epidemic.

They threaten to go to patient advocates. They threaten to file formal complaints.

Eve Klein, M.D. ’11, knows well the “massive pressure” patients put on physicians to prescribe hydrocodone, oxycodone, morphine, codeine and other powerful opiate painkillers.

“The threats are verbalized, they’re direct and they’re not subtle,” said the neurologist, a fellow in OHSU’s Addiction Medicine program.

Dr. Klein spent four years practicing in chronic pain management but left that subspecialty partly because of how punishingly aggressive patients were in demanding opioids.

“You have patients who’ve been on opioids for 20 years or more, they’re disabled, they can’t work, their families are dysfunctional, and they’re dying,” said Melissa Weimer, D.O. R ’12, MCR, assistant professor of medicine at the OHSU School of Medicine and medical director of CODA, Oregon’s largest substance abuse treatment center. “Trying to help people like that is pretty challenging because it’s a way of life for them.”

That challenge is confronted every day by Drs. Klein, Weimer and dedicated physicians and scientists at OHSU and around Oregon who are working to quell the prescription-opioid epidemic—a slow-moving tsunami engulfing the nation. In fact, in 2013 Oregon ranked second in the nation for non-medical use of prescription painkillers and, for a time before that, led it.

Encouragingly, a state and national push to curb the epidemic is under way. And OHSU and its graduates are playing a significant part aimed at improving outcomes for individuals with opioid-use disorders and their families.

Guidelines

Opposing the initiatives are new prescriber guidelines aimed at reining in the dispersion of opioids for chronic pain.

Roger Chou, M.D. ’98, director of the Pacific Northwest Evidence-based Practice Center at OHSU and professor of medicine in the OHSU School of Medicine, co-authored the first-ever, federal, non-VA guidelines for prescribing opioids for chronic pain outside the context of active cancer treatment, palliative or end-of-life care.

Issued in March by the U.S. Centers for Disease Control and Prevention, the recommendations were summed up in the slogan, “Start Low. Go Slow.”

Dr. Chou’s inquiries into the use of opioids for chronic non-cancer pain date back to 2009. He and the Evidence-based Practice Center led development of clinical guidelines for the use of chronic opioid therapy in non-cancer pain for the American Pain Society and the American Academy of Pain Medicine after a systematic review of the literature.

He led another review last year under contract with the U.S. Agency for Healthcare Research and Quality focusing on long-term opioid therapy, which was used in a National Institutes of Health Pathways to Prevention workshop.

“We have very little data on long-term benefits for chronic, non-cancer pain and the short-term benefits are relatively small,” said Dr. Chou. “We tend to prescribe to people who are at higher risk, people who have a history of substance-use disorders, who have psychiatric and medical co-morbidities. And those are the people we should be most cautious about.”
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Katrina Hedberg, M.D. ’85, MPH, state health officer and state epidemiologist, is organizing a task force to develop state guidelines for Oregon providers.

Last year, OHSU’s Dr. Weimer spearheaded Portland-area consensus on safe-prescribing standards. And Oregon’s 16 CCsO, which together manage the Oregon Health Plan (Medicaid) population, are also establishing guidelines, moving patients to doses below 100 morphine equivalents per day.

These regional efforts were inspired, in part, by the early work of Jim Shames, M.D. R ’78, medical director of Jackson County Health and Human Services in Medford, Ore. In response to the high rates of opioid abuse in Southern Oregon, Dr. Shames organized the Southern Oregon Pain Guidance Group in 2011 to disseminate practice guidelines and provide online prescriber education.

Guidelines work, according to a study led by Dr. Weimer and colleagues published January in the journal Substance Abuse and covered by Forbes magazine. Almost 40 percent of patients in the study were able to achieve a set opioid-dose threshold, researchers found, by undergoing opioid tapers — that is, slowly decreasing their opioid dosages over a year-long period following research by the U.S. Department of Health and Human Services, a whole-patient approach to treatment of opioid-use disorders through a combination of medication, counseling and behavioral therapies yields the best outcomes.

In March, the federal government awarded eight, Oregon health centers – from Prineville to Grants Pass, North Bend to Portland – $2.67 million in Affordable Care Act funding to expand comprehensive, substance-abuse services to underserved populations.

The money will help those clinics — including one at OHSU — hire additional providers and social workers and create opioid-treatment registries. A step in the right direction for whole-patient wellness.

Pathways

When people with opioid-use disorders land in the hospital, they present an array of challenges, not least of which is their medical complexity. At OHSU, an innovative effort aims to support hospitalized adults with substance-use disorders on their path to recovery.

Honora Englander, M.D. R ’06, associate professor of medicine in the OHSU School of Medicine, leads the OHSU Improving Addiction Care Team (IMPACT). Often people are hospitalized with medical complications resulting from their substance use, she explains, but until recently, no systems addressed substance-use disorders in the hospital or linked people to treatment after discharge.

“Sometimes, it’s reimbursement,” she said. “Sometimes, it’s the stigma around the daily-dosing treatment you receive at a methadone clinic. Physical accessibility like showing up every morning for treatment, that’s a barrier for people who have jobs.”

There are an estimated 300,000 people who need addiction treatment in Oregon right now who can’t get it, says Knute Ruehlier, M.D. R ’96, a Bend orthopedic surgeon and state legislator who has made the opioid scourge one of his public-policy priorities.

“That’s just not acceptable,” he said. “If someone had a broken leg, and she wasn’t getting treated, we wouldn’t tolerate it. And we shouldn’t tolerate it with addiction.”

Guidelines are important, but they’re just a start, says Joyce Hollander-Rodriguez, M.D. ’09 R ’93, assistant professor of family medicine in the OHSU School of Medicine and program director of the Cascades East Family Medicine Residency in Klamath Falls.

The opioid epidemic “crosses over” with multiple chronic diseases, she says, and is influenced by social determinants of health – access to food, shelter, safety and education.

“We need more access to comprehensive and integrated approaches to chronic pain such as physical therapy, behavioral health, social work and health-navigating resources that often are not well-resourced in rural communities like ours,” she said.

Treating chronic pain with integrated approaches is one thing. What about when opioid use becomes a disorder? According to research by the U.S. Department of Health and Human Services, a whole-patient approach to treatment of opioid-use disorders through a combination of medication, counseling and behavioral therapies yields the best outcomes.

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Access

In September, when her addiction medicine fellowship ends, Dr. Eve Klein will join the small but growing ranks of full-time addiction specialists.

The biggest hurdle to addressing the opioid crisis, she says, is expanding access to treatment. Particularly residential treatment and medication-assisted treatment such as buprenorphine or methadone.

Different patients need different types of treatment depending on where they are in their recovery, Dr. Klein explains, and many treatments have access barriers. “Sometimes, it’s reimbursement,” she said. “Sometimes, it’s the stigma around the daily-dosing treatment you receive at a methadone clinic. Physical accessibility like showing up every morning for treatment, that’s a barrier for people who have jobs.”

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Pain

At the center of the opioid epidemic, of course, is pain, and OHSU researchers have amassed considerable expertise helping advance how we understand pain. Ground zero is the lab of long-time pain researcher Mary Heinricher, Ph.D., professor of neurological surgery and behavioral neuroscience in the OHSU School of Medicine. She and her team of researchers study how the brain controls pain, specifically the physiological and pharmacological properties of brainstem neurons.

Two populations of brainstem neurons modulate pain, she explains. “ON-cells” enhance pain transmission, and “OFF-cells” suppress pain transmission. Normally, they’re balanced. Opioids take advantage of this pain-control system, Dr. Heinricher says, by activating pain-inhibiting OFF-cells and suppressing pain-facilitating ON-cells.

When opioids are repeatedly ingested, the system tries to rebalance itself, researchers observed, with an increase in activity of the pain-facilitating ON-cells. The mechanisms underlying this response are unknown, Dr. Heinricher says, but the net effect is that pain increases and is more difficult to control.
We need more access to comprehensive and integrated approaches to chronic pain such as physical therapy, behavioral health, social work and health-navigating resources.

– Dr. Holland-Rodriguez

“My goal is to understand how this system can go awry to make pain worse, and how new drugs might be developed to inhibit pain through this system,” she said.

It’s important that we treat pain, emphasizes Dr. Heinricher. “Chronic pain damages people’s brains, it impairs their ability to function, and it disrupts relationships,” she said. “It’s a terrible way to leave people.”

“Memory is an important construct,” said Dr. Lattal. “Memory mechanisms to reverse the association that environmental cues may have with the substance, resulting in a strong memory for the absence of that substance. The goal is to enhance cue-exposure therapy with medications that promote memory so that when cues are encountered, a substance seeker can walk away.

The work has relevance for all kinds of substance-use disorders, including opioids, says Dr. Lattal.

Lever

Here are other hopeful signs. Unlike nearly every other state where opioid overdose deaths have surged, they “have decreased dramatically” in Oregon, the state Public Health Division reports.

“Oregon is beginning to get its hands around the issue,” said Dennis McCarthy, Ph.D., professor of public health and preventive medicine in the OHSU-PSU School of Public Health, who served on former Oregon Governor John Kitzhaber’s Prescription Drug Task Force, which proposed steps in 2014 to confront the opioid epidemic. “I think it’s doing a good job of exercising the absence of that substance. The goal is to enhance cue-exposure mechanisms to reverse the association that environmental cues may have with the substance, resulting in a strong memory for the absence of that substance. The goal is to enhance cue-exposure therapy with medications that promote memory so that when cues are encountered, a substance seeker can walk away.

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Memory

In a different part of OHSU, researchers are looking at the neuroscience of substance-use disorders, another area of research strength at the university.

Stuart Rosenblum, M.D. ’80, Ph.D. ’76, long-time Portland pain specialist agrees. “It’s important to remember there are legitimate patients who have severe chronic pain and opioids help them function.”

The goal

IS TO ENHANCE CUE-EXPOSURE THERAPY WITH MEDICATIONS THAT PROMOTE MEMORY SO THAT WHEN CUES ARE ENCOUNTERED, A SUBSTANCE SEEKER CAN WALK AWAY.

Retail pharmacies and housed at the state’s Public Health Division. More than 8,200 providers and pharmacists access it to ensure that patients aren’t being put at risk of an overdose.

There are other levers.

While the minority of complaints received by the Oregon Medical Board relate to narcotic prescribing, they are notable and potentially dangerous, reports Donald Girard, M.D. R ’73, OMB vice chair and professor of medicine in the OHSU School of Medicine.

“The board’s work on these issues is exhaustive,” he said. “Most health care professionals whose prescribing comes under scrutiny are caring individuals who are not adequately following prescribing requirements for narcotics. Central to achieving the board’s mission of protecting the public is its work toward reeducating and reforming the practices of licensees who are not meeting a standard for practice.”

For the majority, that’s enough to reestablish careful practices. For a small number, disciplinary action, including prescribing or practice restrictions, are required, Dr. Girard adds.

“This can’t continue”

What is clear is that people cannot walk away from substance-use disorders on their own. They need help. And when help materializes, health can be restored, as Dr. Melissa Weimer has learned over and over.

Consider one case. Tina Cooper* was referred to Dr. Weimer for intractable migraine headaches that didn’t respond to anything but opioids.

Cooper had turned up in various hospital emergency rooms more than 500 times in two years. When Dr. Weimer tapped into Cooper’s PDMP record, the printout was pages long.

Cooper had been getting daily prescriptions for Vicodin for more than a year. She was so deep into her addiction, she says, that she didn’t go to any of her children’s school events or even function as a mother.

“The effects of the narcotics would keep me in my room,” said Cooper. “I had no energy. It was like I was in a deep depression. Then Dr. Weimer showed me that PDMP list. Looking at that list almost made me think I was trying to kill myself by the amount of pills I was taking.”

“I told her, ‘This can’t continue,’” recalled Dr. Weimer. Dr. Weimer started Cooper on medication-assisted treatment for opioid-use disorder the next day and referred her to outpatient substance-abuse counseling treatment at CODA, Inc.

After she got well, Cooper says she began cooking dinner for her family again, attended her son’s basketball games, visited colleges with her daughter and joined the workforce.

Health and hope in the colossal effort to end Oregon’s epidemic.

*Cooper has given permission to share her story.

WeberLight

Future providers need to be informed about opioid use and disorders to help curb the epidemic. Here is a sampling of what OHSU School of Medicine programs are doing.

M.D. STUDENTS in the YOUR M.D. curriculum take the Pain Intersession, a two-week, required course that teaches medical students about topics related to pain and prescribing approaches, using an integrated model which covers basic, clinical and health care delivery sciences. Multiple OHSU faculty members provide instruction – including Dr. Roger Chou.

PHYSICIAN ASSISTANT STUDENTS learn about responsible opioid prescribing, harm reduction and safe practices as part of a pain management curriculum they complete during the clinical phase of their education.

OHSU RESIDENCY and FELLOWSHIP PROGRAMS are helping “lead the charge,” said P. Todd Korthuis, M.D., MPH, associate professor of medicine in the OHSU School of Medicine and director of the OHSU Addiction Medicine Fellowship program. His program, for example, helps meet an overwhelming need for addiction specialists.

At a broader level, the OHSU SCHOOL OF MEDICINE was among more than 60 medical schools to sign a White House pledge stating that students will receive a form of prescriber education, in line with CDC recommendations.
Dr. Robert Steiner, Ph.D. ‘76

He starts every email to the students and researchers in his lab the same way: “Dear CoD.”

“CoD” stands for “Corps of Discovery,” the name Meriwether Lewis and William Clark gave their expedition as they traversed the Louisiana Purchase to Oregon territory in 1804. Dr. Robert Steiner thinks of the work he and his lab does as a process of discovery and scientific inquiry.

Dr. Steiner is a professor of obstetrics/gynecology, physiology and biophysics at University of Washington. His 40-year teaching and research career has focused on neuroendocrinology and understanding how the brain communicates with, and regulates, the human reproductive system.

Dr. Steiner and his lab have made pioneering advancements, including discovering that leptin, a hormone produced by fat cells, can tell the reproductive system how fat or thin a woman is – and therefore, whether a woman has the “caloric reserves” to have a successful pregnancy.

He’s found that a person’s reproductive system, metabolism, weight and diet are “inextricably linked.” His research and lab are also well known for identifying, at the cellular and molecular level, specific neurotransmitters that regulate the secretion of hormones.

“This is the brain in action,” said Dr. Steiner.

Dr. Steiner’s interest in neuroendocrinology began at OHSU, where he worked with John A. Resko, Ph.D., former chair and professor of physiology and pharmacology, OHSU School of Medicine, and long-time scientist at the Oregon National Primate Research Center.

Each of Dr. Steiner’s discoveries in neuroendocrinology led to more questions. “You start thinking about things and you become turned on and fascinated by the questions,” said Dr. Steiner. “It just feeds on itself, and it feeds on conversations that take place with friends and students and mentors and colleagues.”

His curiosity is infectious and inspires his students. “It’s really fun to have discussions with him about possible research questions,” said Simina Popa, Ph.D., a molecular biologist in Seattle who completed research as an undergraduate and as a Ph.D. candidate in Dr. Steiner’s lab. “I fondly remember engaging in discussion with Robert and other members of CoD, staying in the lab until two in the morning.”

Dr. Steiner has mentored over 35 graduate students and postdoctoral fellows and says those relationships have been the most rewarding part of his career. He approaches mentorship with an egalitarian attitude – he insists, for instance, that his students call him Robert.

Every year, Dr. Steiner hosts a party or hike for his lab and frequently brings his Bernese Mountain dogs, Fibi and Bates, with him to work to meet his “lab family.”

Daniel Marks, M.D., Ph.D., professor of pediatrics in the OHSU School of Medicine, wrote his doctoral dissertation under Dr. Steiner’s tutelage and credits him with helping launch his career.

“He was and is a superb mentor, demonstrating the ideal mixture of patience and pressure to help his mentees achieve and exceed their goals,” Dr. Marks said.

Dr. Steiner hopes his research can help explain conditions like precocious puberty, delayed puberty and infertility and, potentially, lead to medications and other treatments. Together, the Steiner lab finds shared purpose in science’s process of discovery.

2016 Alumni Awards
By Amanda Waldroupe and Harry Lenhart
In 1991, a group of medical ethicists in Oregon made a troubling discovery that patient preferences for end-of-life care expressed in advance directives were not consistently honored. Led by Dr. Susan Tolle, director of the OHSU Center for Ethics in Health Care and professor of medicine in the OHSU School of Medicine, and others, the group devised Physician Orders for Life-Sustaining Treatment (POLST), translating patient preferences into medical orders that are entered into an electronic registry. The POLST Paradigm has been implemented in some form in 45 states. In 2014, the Institute of Medicine endorsed it.

That same year, Dr. Tolle was awarded the MacLean Center Prize in Clinical Ethics, one of the most prestigious national prizes in the field of ethics. She donated the $50,000 prize to the OHSU Foundation, acknowledging that it represented the work of hundreds of health care professionals in Oregon and across the country.

In 1983, Dr. Tongue founded the Oregon Lifebelt Committee and tried for years to get a safety belt law passed in the Oregon legislature. He finally succeeded in 1990 via Oregon’s arduous ballot initiative process. Dr. Tongue, whose great-grandfather introduced the bill in Congress in 1902 that created Crater Lake National Park and whose father was an Oregon Supreme Court justice, has a strong sense of civic duty. He’s also helped pass state drunken driving laws and has been a vocal opponent of increasing interstate speed limits.

For his work as a “roadway warrior,” he’s received many honors, including the National Highway Traffic Safety Association Public Service Award.}

He was the first person to receive a Ph.D. in biomedical informatics from OHSU in 2007. While a student at OHSU, Dr. Adam Wright helped the U.S. Department of Health and Human Services develop a national action plan, or roadmap, for embedding information about medical best practices in a nationwide electronic health information network. He continued to work on that effort as a visiting scholar in 2005 in HHS’s Office of the National Coordinator for Health Information Technology in Washington, D.C. Dr. Wright, 34, is now an associate professor of medicine at Harvard Medical School, where he teaches introductory courses on biomedical informatics, and a senior scientist at Brigham and Women’s Hospital in Boston. Much of Dr. Wright’s research focuses on how to make electronic health records more effective. He is the principal investigator of two research projects funded by the National Institutes of Health.

Dr. Wright received the American Medical Informatics Association’s New Investigator award in 2010 and was recently elected a fellow of the American College of Medical Informatics.
Illustration isn’t the first thing that comes to mind when one thinks of important research skills. Yet graphically conveying complex phenomena is a vital— if often overlooked—skill in publishing a scientific paper or giving a talk.

Take hearing researcher John Brigande, Ph.D. Earlier this year, the associate professor of otolaryngology, head and neck surgery in the OHSU School of Medicine, needed an illustration depicting the sensory epithelium of the mammalian inner ear for an upcoming poster presentation. The graphic had to show clear anatomical relationships between resident cell types.

Dr. Brigande could have tinkered in Adobe Illustrator or assigned the job to lab staff, but that distracts from completing experiments. Instead, he turned to Dr. Karen Thiebes, Ph.D. ’15.

Last year, Dr. Thiebes started her own Portland-based company, Simplified Science Publishing, producing custom animations, data graphics and 3-D illustrations for researchers.

The business marries her extensive scientific training with a knack for graphic design and an interest in science communications. “It’s so important for scientists to get their message across,” she said. “It’s easy to lose someone’s attention when you’re talking about your own science, even to fellow scientists, because you’re so deep into your work. Good graphics representing data in a precise but engaging way are essential. I spend a lot of time thinking about how to communicate a scientist’s story.”

That comes from personal experience. As a neuroscience student, she was—quite literally—drawn to the problem of illustrating her lab’s findings. Along the way, she resurrected an old passion for doodling.

With support from her mentor, Soo-Kyung Lee, Ph.D., professor of pediatrics in the OHSU School of Medicine, Dr. Thiebes took classes at the Portland Art Institute and taught herself graphic design on the side, while completing a thesis on the role of microRNA function in motor neuron development.

Then she launched her business, which today is growing. “It’s been so fun,” she said. “It’s also fulfilling. Not only do I get to engage with the science, but I get to help others convey their message.”

So deep into her work, Dr. Thiebes draws on her Ph.D. training to produce scientifically accurate and visually compelling graphics.

“Karen’s a unique combination of skills,” he said. “She speaks the language of a working scientist and the language of an artist. She helps me decide the main points I want to convey. She offers novel suggestions. And her work is lovely.”

**Mentor graduate students**

Graduate students face myriad career options today. The OHSU School of Medicine is seeking alumni volunteers who are willing to share their own career experiences with students. The Alumni Career Network connects students to alumni in diverse professions for mentoring opportunities and/or career events. Volunteers don’t need to be in the Portland area. Contact the Career and Professional Development Center Director, Jackie Wirz, Ph.D. ’10, at wirzj@ohsu.edu.

**M.D. reunions this year**

Reunion coordinators are busy planning gatherings for the M.D. classes of ’66, ’81, ’86 and ’11. Visit www.ohsu.edu/som/alumni. If you are interested in attending and/or coordinating your own class reunion this year or in the future, please contact the OHSU Alumni Relations Program at alumni@ohsu.edu.

**Stay in (digital) know**

With timely feature stories, school updates and opportunities to be involved, Medicine Matters e-news is your go-to digital source for all things OHSU School of Medicine. Send us your email address to receive Medicine Matters 10 times per year by contacting alumni@ohsu.edu.

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**Speed dating at medical school? Why yes.**

Hosted by the OHSU School of Medicine Alumni Association, Medical Specialty Speed Dating connects first- and second-year M.D. students with physicians to converse about practice areas and career choices. The event encourages students to think deeply and critically about specialty decisions. Each year, alumni participate. Are you in the Portland area? Join others at this fun event to help the next generation of physicians. Email alumni@ohsu.edu.
he begins by offering tea. For M.D. students who meet with Gordon Noel, M.D., professor emeritus of medicine in the OHSU School of Medicine, his ritual of tea and thoughtful conversation provides a welcome respite from the rigors of school, life and rainy Portland.

Now on his 38th year in academic medicine – 24 of them at OHSU – Dr. Noel has fashioned an accomplished career. He earned his medical degree from Columbia University in 1967 and went on to hold faculty appointments at Columbia, Dartmouth and Uniformed Services University of the Health Sciences, in Bethesda, Md., before finding a home in the Pacific Northwest as chief of medical service at the VA Portland Health Care System.

On the OHSU faculty, he served on countless academic committees and society boards, published articles on subjects ranging from human prolactin to clinical assessment and helped expand the M.D. curriculum to include narrative and reflective medicine. During that time, he managed to notch five Boston Marathon finishes.

Yet Dr. Noel, a runner to this day, is most known for his magical skill in teaching and mentorship, receiving numerous awards and accolades. He continues to mentor students on a volunteer basis. In turn, many of them call him family.

“He truly cares for and fully supports each of his students’ careers,” said former mentee Kate Luenprakansit, M.D. ‘11, now an orthopedic hospitalist and clinical instructor at Stanford. “He never told me what to do, but rather, guided me to walk my own path to reach my potential as a physician.”

Fourth-year medical student Jessica Finley relied on Dr. Noel’s counsel when she developed an acute medical condition right before her USMLE STEP 1 exam. “He’s like my second dad,” she said.

With his help, legions of students have found their own true north: Caring for others by learning to care for themselves.

Nominate teachers and mentors who have had an impact on you for our “Lasting Legacy” column. Reach us at alumni@ohsu.edu.
2000s

Jeffrey Fullman, M.D. ’80 R ’83, was recently elected chairman of the board for Legacy Health Systems. He’s served on the board from 1999 to 2008 and from 2009 to the present.

1990s

Brian Laufer, MPAS ’97, was named founding director of the University of Nevada School of Medicine’s new Physician Assistant Program. Laufer most recently practiced medicine in northern Nevada at Mary’s Regional Medical Center in Reno, where he was named Assistant Program. Laufer most recently was named founding director of the University of Nevada School of Medicine’s new Physician Assistant Program. Laufer most recently was named founding director of the University of Nevada School of Medicine’s new Physician Assistant Program.

1980s

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2010s

Jim Richards, M.D., MBA ‘15, was appointed chief medical officer of the Oregon Health Authority in December 2015.

Michael Penrose, M.S. ’15, is system director for provider services, provider recruitment and workforce planning at PeaceHealth.

Jill Archer, MBA ’12, was promoted to deputy director of the Department of Health, Housing and Human Services for Clackamas County.

In memoriam

James Metcalfe, M.D., died Jan. 8, at age 94. Dr. Metcalfe was a professor emeritus of medicine in the OHSU School of Medicine and cardiovascular research leader. Josef Rösch, M.D., died Jan. 17 at age 91. Dr. Rösch was the founding director of the Dotter Interventional Institute and a professor of interventional radiology in the OHSU School of Medicine.
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