MIND OVER MATTER
OHSU scientists push the frontier of neuro knowledge
p. 10
I am deeply concerned about the debt load of our students at OHSU and across the nation. Public funding for higher education has changed drastically over the past few decades, and OHSU has not escaped this trend. While the school has had to raise tuition to help make up the difference, tuition still doesn’t cover the entire cost of educating a student today. For that, we rely on our own faculty and health care system to contribute part of their earnings to the education mission across all our programs.

But even with this contribution, student debt has still grown. Today, the average medical school debt across all OHSU M.D. graduates is $174,810. Graduate Studies students are also entering their professions with significant debt. The ripple effect of this across the health care workforce is potentially profound. This high debt load discourages some qualified applicants and limits professional choices.

I am committed to reversing this very troubling trend.

We’ve recruited a full-time financial counselor who meets with students throughout their education to discuss financial options. We are examining our entire educational model to identify ways to increase our efficiencies and take advantage of innovations made possible through technological breakthroughs, novel educational partnerships and other opportunities. These include changes related to the M.D. Curriculum Transformation initiative (see page 4), greater use of simulation and use of the OHSU/OUS Collaborative Life Sciences Building on Portland’s South Waterfront beginning in 2014. We’re advocating for more loan repayment programs, urging the State of Oregon to increase state support and tuition waivers and looking at ways we can lock in tuition rates.

An essential element of any solution to student debt is to increase our ability to award scholarships, currently one of the highest priorities of the school.

But for the long term, an essential element of any solution to student debt is to increase our ability to award scholarships. Raising funds for scholarships is currently one of the highest priorities of the school. We are working closely with the OHSU Foundation, which has teams of professionals dedicated to scholarship fundraising efforts. They are working hard to grow the number of alumni classes dedicated to funding student scholarships as well as to develop individual, estate and other gifts targeted for scholarships.

Our goal to increase student scholarship support also takes us outside traditional approaches. For example, in June 2012, after considerable effort from OHSU, the Oregon Office of the Attorney General and the Multnomah Circuit Court gave approval to modify the use of approximately $10 million of previously restricted (and unused) student loan funds into funds to be awarded to medical students to help offset indebtedness. In the course of one year, this could provide an additional $450,000 in scholarships for our medical students.

If you are interested in supporting a scholarship for a student, please contact Christine Tye, senior director of development, at 503 494-0104. I am hopeful that together we can find ways to ensure this era of historically high student debt loads is a short one.

Mark Richardson, M.D., MBA
Dean
Quantifying the CCO Impact

OHSU receives funding to grow expertise in the science of health care delivery

By Jennifer Smith

All eyes are on Oregon’s health care reform experiment, and now we’ll be able to report the results.

In November, OHSU announced a $2.26 million grant from the National Institutes of Health (NIH) and a $2.26 million gift from Phil and Barbara Silver, which will allow OHSU’s Center for Health Systems Effectiveness (CHSE) to undertake a thorough analysis of Oregon’s bold plan to reduce Medicaid spending.

“This funding will allow us to take a deep dive into the how’s, why’s and where’s of CCOs – which CCOs are high performers, how savings are accrued and what are the effects on quality,” said John McConnell, Ph.D., CHSE director and associate professor of emergency medicine. “Our work will provide critical information to the state and the rest of the country.”

The Silver gift will allow for additional research, such as assessing variations between Portland-based CCOs and smaller rural CCOs, exploring whether the CCO model is viable for commercially-insured populations and informing key audiences – such as legislators, business leaders, scholars and the media – of the study’s findings.

As Dr. McConnell wrote on OHSU’s 96,000 Square Miles blog, “When it comes to knowing what works in the health care system, we are in the Dark Ages.” Now it’s time for enlightenment.
Education News Roundup

M.D. CURRICULUM TRANSFORMATION PROGRESS
An all-school retreat in October kicked off the multi-year M.D. Curriculum Transformation initiative. Since then, work has moved quickly, involving work groups, focus groups, surveys, benchmark studies with other schools and discussions far and wide.

This spring, faculty leaders integrated diverse information from many sources – including faculty, student, resident, patient, alumni and community members – to develop a draft curriculum template. The template builds on the existing strong curriculum, but also provides new elements. In particular, it is more student-centric and adaptable to unique interests and skills. It is also based on competency, rather than time. This means, for example, an entering student with significant clinical experience, such as a physician assistant, could potentially earn an M.D. in less than four years.

One strong emerging theme, thus far, is the enhancement of the School of Medicine’s reputation for excellence in primary care education, along with specialty care, and also the improvement of educational experiences in rural and underserved settings.

“The M.D. Curriculum Transformation initiative will make OHSU an even better medical school and will provide innovative and knowledgeable physician leaders aligned with Oregon’s and the nation’s health care future,” said Dean Mark Richardson.

The school intends to implement the new curriculum with the class entering in 2014. The plan is to continue the process such that full implementation will require four years. More at www.ohsu.edu/newcurriculum.

EXPRESSING GRATITUDE
In December, OHSU installed a new monument just outside Mackenzie Hall honoring body donors, where students walk to and from class every day. It replaces a less conspicuous donor memorial plaque, which was located in the courtyard outside the Medical Research Building.

As students’ first patients, donors provide the pinnacle experience of anatomy. “This was not just an experience with the patient body, but also with the human soul,” said Beth Krautscheid, a first-year M.D. student. “It was the most giving sacrifice most of us have ever received, and the memorial was the least we could do to share our appreciation.”

113 ENVELOPES
At the OHSU Match Day ceremony on March 15, eager and nervous medical students crowded into the Center for Research on Occupational and Environmental Toxicology Atrium to learn where they would be spending the next three to seven years of their lives. The results?

• Of 118 graduating students, 113 will pursue clinical training and the rest are pursuing other interests.

• A total of 47 students, or 42 percent of the matching class, are starting their training in primary care, which includes internal medicine, family medicine and pediatrics.

• Matches to internal medicine increased two percent from last year, with 19 students matching. (While some who select internal medicine are likely to go on to sub-specialize, the overall starting number for primary care is significant.)

• In specialties, 14 students matched in emergency medicine programs, 11 in surgery, six in anesthesiology and six in radiology.

OHSU By the Numbers

U.S. News & World Report
2014 medical school rankings
3: primary care
5: family medicine
31: research

Portland Monthly
Top Docs and Nurses 2013
1,100: total physicians and nurses surveyed
410: total physicians and nurses selected
112: OHSU physicians and nurse practitioners selected (27 percent of those selected)
184: OHSU alumni physicians and NPs selected (45 percent of those selected)

2011–2012 a record year in technology transfer and business development
81: completed industry-sponsored research agreements
12.8: million dollars awarded to researchers
33: patents issued
144: non-disclosure agreements with private companies

PERFECT MATCH
Match Day marked a double dose of excitement for Stacy Sprando. She not only learned she’d be training in emergency medicine at OHSU, but her boyfriend proposed to her (and she accepted) just before opening her envelope. “Match Day was an incredible whirlwind, a memory that I will take with me for the rest of my life,” said Sprando.
**Powerful boost for microscopy**

The W. M. Keck Foundation, one of the nation’s top private research funders, awarded $1 million to a multi-institutional team working on a revolutionary technology known as “correlative microscopy” at the OHSU Center for Spatial Systems Biomedicine (OCSSB).

“In the past, we’ve focused on measuring the basic structure and function of biomolecules,” explained Joe Gray, Ph.D., OCSSB director, Gordon Moore chair of biomedical engineering and associate director for translational research at the OHSU Knight Cancer Institute. “The W. M. Keck Foundation is helping us build the tools that will lead to a more complex systems-level understanding of how our cells work, how they interact, how they become corrupted and how they might respond to a particular treatment. This work will improve all aspects of cancer management from detection to treatment, while creating new molecular insights in neuroscience, cardiology, immunology and other disease-focused research.”

The OCSSB is a multidisciplinary center established by the OHSU Knight Cancer Institute and other collaborators within the OHSU School of Medicine to use advanced measurement and computing technologies to reveal molecular-level functions.
Faculty Honors

**ELECTED** Frances Biagioli, M.D. R ’98, associate professor of family medicine, began her term as president of the Oregon Medical Association in April. She is also associate director of medical student education in the Department of Family Medicine and past medical director of OHSU’s Gabriel Park Family Health Center.

**SELECTED** Robert Duvoisin, Ph.D., associate professor of physiology and pharmacology, was selected as one of 10 winners in the National Eye Institute Audacious Goals National Challenge competition to advance vision science. His forward-looking idea could restore vision using opto-electronic stimulation.

**BESTOWED** David Huang, M.D., Ph.D., professor of ophthalmology, was recognized with a Champalimaud Vision Award for his central role in co-inventing an imaging tool called optical coherence tomography that has revolutionized the field of ophthalmology. The $1.3 million award, shared among six awardees, is the largest scientific and humanitarian prize in the field of vision research.

**DISTINGUISHED** Dennis McCarty, Ph.D., professor and vice chair of public health and preventive medicine, was honored with a Lifetime Achievement Award in the Alcohol, Tobacco, and Other Drugs Section at the American Public Health Association’s annual meeting. Dr. McCarty’s career has focused on bridging the gap between policy, practice and research related to alcohol and drug abuse treatment and prevention.

More faculty honors and awards at www.ohsu.edu/somfacultyhonors.

---

Giving Update

**ARCS helps Graduate Studies students pursue science careers**

By Jennifer Amie

One February afternoon, a group of women in an OHSU biomedical engineering lab passed around a smooth, rubbery vascular graft, examining the device that can save a life or harm it should the graft fail.

Preventing such failures is the objective of Jeremy Glynn, a biomedical engineering doctoral student who is looking for ways to improve the success rate of vascular grafts and other treatments for cardiovascular disease.

Glynn’s ability to pursue a science career was directly enabled by the women who had gathered around his lab station that day – all members of the Portland Chapter of the ARCS (Achievement Rewards for College Scientists) Foundation. In 2012, Glynn received a Portland ARCS Chapter Scholar Award of $18,000, which will be paid over three years.

“The research happening now at our universities will make all the difference in advancing health, technology and our standing in the world,” said Portland ARCS Chapter President Jean Josephson. “Every week, I read about the United States’ shortage of engineers and scientists. This is where we should put our energy and money, if we can.”

In just eight years, the group has provided financial support for 92 OHSU graduate students with more than $1.25 million in cumulative giving since the chapter’s founding in 2005.

The highly selective awards help OHSU attract the best and brightest students. Recipients have gone on to conduct significant breakthrough research, found companies and receive patents.

But cash-strapped young scientists face a long road before reaching those heights. An ARCS award can make it feasible to stick to a challenging graduate program through life’s ups and downs. For Allan Price Memorial Scholar Kevin Watanabe-Smith, that means replacing a dying car so he can get to the lab each day. “I like that the ARCS members say, ‘You guys are smart enough to figure out what to use the money for,’” he said. “That trust is appreciated.”

That trust often grows into a personal bond as ARCS members and scholars meet for laboratory tours and luncheons and develop lasting friendships. “You enjoy the students’ work so much that you stay really close to them, right through their dissertation defense,” said ARCS member Barbara Silver. In this way, the ARCS program rewards not only the students, but also their dedicated sponsors.

Learn more about the ARCS Foundation at www.arcsfoundation.org/portland/.
Think our science Ph.D.s are destined for academic careers only? Think again.

Jennifer Ngo-Anh, M.D., Ph.D. ’06 has an otherworldly job. She’s head of the Human Research Unit at the European Space Agency and previously served as program manager of the Mars500 Program. The Mars500 locked six “marsonauts” in a simulated spaceship near Moscow for 520 days—the time it would take to fly to Mars, complete 30 days of surface exploration and return to Earth—in order to study effects on the human body and psyche.

Or, consider Dan Beacham, Ph.D. ’01, who works in medicine’s coming revolution: genomics and biotechnology. He’s a senior staff scientist at the Eugene, Ore., campus of Life Technologies, where he develops high-throughput screening and gene delivery tools that support research in drug discovery, cellular analysis and neuropharmacology.

And there’s Sonal Das, Ph.D. ’05, who completed postdoctoral training at the University of Washington and wanted to apply her scientific background in a big picture way. She is now a senior associate director at the Michael J. Fox Foundation for Parkinson’s Research in New York, part of a 16-person team that directs funding and research programs from discovery through clinical trials. There are also science writers, high school science teachers, college professors and patent attorneys.

What do these unconventional scientists have in common? They’re graduates of OHSU’s nationally ranked Neuroscience Graduate Program (NGP), the first interdepartmental graduate program to form at OHSU.

“We have to stop thinking about science Ph.D.s as being only academic scientists.”
– Dr. Westbrook

Or, consider Dan Beacham, Ph.D. ’01, who works in medicine’s coming revolution: genomics and biotechnology. He’s a senior staff scientist at the Eugene, Ore., campus of Life Technologies, where he develops high-throughput screening and gene delivery tools that support research in drug discovery, cellular analysis and neuropharmacology.

And there’s Sonal Das, Ph.D. ’05, who completed postdoctoral training at the University of Washington and wanted to apply her scientific background in a big picture way. She is now a senior associate director at the Michael J. Fox Foundation for Parkinson’s Research in New York, part of a 16-person team that directs funding and research programs from discovery through clinical trials. There are also science writers, high school science teachers, college professors and patent attorneys.

What do these unconventional scientists have in common? They’re graduates of OHSU’s nationally ranked Neuroscience Graduate Program (NGP), the first interdepartmental graduate program to form at OHSU.

“We have to stop thinking about science Ph.D.s as being only academic scientists,” said current NGP Director Gary Westbrook, M.D., Dixon Professor of Neurology and co-director of the OHSU Vollum Institute, a privately endowed research institute dedicated to neurological and psychiatric diseases. “We’re spreading people into a lot of different areas where science experience is the key. It’s a credit to the program.”

NGP, celebrating its 20th anniversary this year, anticipated science’s changing paradigm with uncanny prescience. At OHSU, it bridged the silos of neuroscience’s subfields, linking strong but disparate faculty communities with its interdepartmental mandate and open-ended pursuit of knowledge and discovery. While interdisciplinary work is almost a given in biomedical higher education these days, at the time of NGP’s founding it was uncommon.
Power of collaboration
NGP’s founder was Thomas Soderling, Ph.D., now professor emeritus and senior scientist at the Vollum. For nearly two decades, Dr. Soderling served as a professor of molecular physiology and biophysics at Vanderbilt Medical School. In 1991, attracted by OHSU’s neuroscience work, he moved across the country to Marquam Hill and the Vollum. Once he arrived, however, he was surprised to learn that OHSU had no doctoral program in the neurosciences. He volunteered to initiate one.

An umbrella Ph.D. program that would draw faculty from a variety of departments was a new idea for OHSU. “There was significant resistance from a few departmental chairs who feared that the NGP would take away limited financial resources from their programs,” Dr. Soderling recalled. But with the critical support of Richard Goodman, M.D., Ph.D., Vollum director at the time, NGP received the go-ahead in 1992, and fears proved unfounded.

Dr. Soderling and his neuroscience faculty proceeded to design an exacting curriculum, which required three basic neuroscience courses and three lab rotations the first year, ending with what Edwin McCleskey, Ph.D., who succeeded Dr. Soderling as director in 1996, described as “an unusually rigorous qualifying exam.”

Dr. McCleskey credits the structured coursework, tough written exams and scope of the faculty for much of the NGP’s success in attracting many of the best and brightest neuroscience graduate students, who currently number 43.

The diversity of NGP’s faculty, in particular, stands out. The 150 faculty members hail not only from the Vollum, but also the Jungers Center for Neurosciences Research, Papé Family Pediatric Research Institute, clinical and basic science departments within the School of Medicine, Oregon National Primate Research Center, Center for Research on Occupational and Environmental Toxicology, Portland Veterans Affairs Medical Center and the Oregon Hearing Research Center, which is home to Peter Barr-Gillespie, Ph.D., NGP director from 2003 to 2008. Together, said Dr. McCleskey, the faculty is stronger than the sum of its parts “because neighboring faculty members complement each other and collaborate so much.”
A different kind of doctoral training

In 2006, Dr. Westbrook created a unique course on the neurobiology of disease that is now part of the core curriculum. It’s proving to be a draw for NGP applicants, who have doubled in recent years. The course introduces students to neurological and psychiatric disease mechanisms from basic science to translational research and clinical trials. Students are exposed to patients and clinical settings.

The idea, Dr. Westbrook says, is to give doctoral trainees enough working knowledge about disease mechanisms to understand how their lab work may be relevant. “That connection is key to turning some students onto disease-related research and can produce a gold mine of scientific knowledge,” said Dr. Westbrook.

“[NGP] stands out not only for its rigor but for the creative, thoughtful and successful scientists that it produces.”

– Dr. Fryer

OHSU neuroscience has achieved national prominence in research and clinical care, thanks in significant part to NGP’s strong educational underpinning. Why? A high-quality graduate program is vital, asserts Dr. Westbrook, because without it talented younger faculty – the science stars of the future who rely on graduate students to power their labs – will go elsewhere, and eventually, first-class applicants will disappear as well. In short, a first-class graduate program produces the fuel needed to keep the engine of scientific research running.

Allison Fryer, Ph.D., associate dean for Graduate Studies and professor of pulmonary and critical care medicine and physiology and pharmacology, notes that NGP has grown into one of the strongest graduate programs at OHSU. “It stands out not only for its rigor but for the creative, thoughtful and successful scientists that it produces,” she said.

Now numbering 90 graduates, as much as 85 percent of NGP alumni complete postdoctoral training before launching their careers. As Drs. Ngo-Anh, Das, Beacham and others attest, NGP graduates land jobs across a wide range of pursuits, including, of course, traditional research within academic labs. A record that is out-of-this-world.
Secrets of an Idle Brain

By mapping the brain at rest, Damien Fair, Ph.D., is gaining important insights into pediatric neurological disorders

By Jim Newman and Kathleen McFall

To Damien Fair, PA-C, Ph.D., assistant professor of behavioral neuroscience and psychiatry, one of the most vexing clinical challenges in pediatric neuroscience was captured in a mother’s simple question. “How can my child have ADHD at school but not at home?”

The answer relates to the complexity of the underlying connectome. Linguistically akin to genome or biome, a connectome identifies a map of a linked network of neural pathways in the human brain. Dr. Fair’s research focuses on understanding the specific connectome that will help better characterize any given child with attention deficit hyperactivity disorder (ADHD) or autism, and simultaneously, many other pediatric psychiatric conditions.

Paradoxically, a first step in mapping this – or any – connectome is to unlock the secrets of the idle brain.

Getting to the baseline

For years, scientists studying the brain have looked at how location-specific neural activity spikes when we do discrete tasks – singing, looking at the face of a loved one, choosing between shampoo or conditioner.

“But we now know that various regions of the brain are actively interacting while a person is doing nothing – sort of like a car idling at a stoplight,” explained Dr. Fair. Mapping this “resting state” or intrinsic activity of the brain is also the key to unlocking the atypical brain. In short, this resting connectome provides a baseline that, by contrast, brings the abnormal neural networks into relief.

“We are hopeful this will help guide future diagnostic, therapeutic and genetic studies.”

– Dr. Fair

“Understanding the brain at rest helps separate typical from atypical function and therefore may help with the development of subgroups for many types of neurological disorders, such as with ADHD and autism,” he said.
According to the Centers for Disease Control and Prevention, more than 5 million children three to 17 years of age have been diagnosed with ADHD. ADHD and autism are two of the most widely diagnosed neurodevelopmental disorders. However, diagnosis relies on parent and teacher interviews and clinical observation – all of which are prone to difficult-to-eliminate biases. Further, ADHD groups all symptoms into one disorder.

“Within the discipline of psychiatry, there is an overall absence of definitive biological markers for ADHD, or for most neuropsychiatric disorders for that matter,” Dr. Fair said. “We want to change that.”

Dr. Fair’s research relies on observing the connectivity of the resting state of brains of hundreds of typically and atypically developing children of various ages with functional magnetic resonance imaging (fMRI), and integrating the resulting reams of data with computational techniques emerging from graph theory.

Using these techniques, and building on prior work with his colleagues at Washington University, Dr. Fair and his team are now able to accurately predict a young person’s age just by studying their brain scan. The hope is that, eventually, this type of data will form the basis of standardized growth curves that track pediatric brain development, analogous to those already in use that track a child’s weight, height or head size. From this, pediatricians might be able to identify when a child appears to be at risk for neurological disorders.

A better understanding of ADHD

How does this connectome research help answer the original question posed by the mother? That’s the next step. With the normal pediatric connectome coming into view, the researchers are turning their focus to identifying the atypical aspects of these neural networks, applying the same integrated imaging techniques to large numbers of children diagnosed with ADHD.

Dr. Fair is optimistic about the potential outcome. “Our goal is to eventually subdivide the current pediatric ADHD population into more refined biological subgroups. If we can parse these kids like that, we are hopeful this will help guide future diagnostic, therapeutic and genetic studies,” he said.

OHSU is among the top-funded universities in the nation for neuroscience research and supports unique resources – advanced imaging, animal models and a commitment to collaboration – that are essential for this cutting-edge research.

Dr. Fair was recruited to the School of Medicine faculty in 2011 after completing post-doctoral training at OHSU, first under the guidance of Bonnie Nagel, Ph.D., and then of Joel Nigg, Ph.D., in the Department of Psychiatry. Dr. Nigg is a leader in the realm of ADHD research with whom Dr. Fair now closely collaborates. Reflecting the cross-disciplinary aspect of his research, Dr. Fair holds a joint appointment in the Departments of Behavioral Neuroscience and Psychiatry, and the Advanced Imaging Research Center.

“OHSU was fortunate to recruit Dr. Fair here and retain him at OHSU; he represents the next generation of cutting-edge work in brain imaging methodology, and even though he’s early in his career, he is already one of the most well-cited and visible investigators in this field,” said Dr. Nigg.

YES to science!

Dr. Fair’s dedication to children goes well beyond the lab. He founded a program called YES (Youth Engaged in Science) that mentors kids toward science careers. The program connects scientists as role models with a variety of community and educational programs, with a particular focus on groups historically underrepresented in the biomedical sciences.

“Our goal is to get as many researchers in front of these kids talking and sharing stories so they experience everyday science in ways that inspire them and open their eyes to the possibilities,” said Dr. Fair.

“Building the ‘pipeline’ of up-and-coming scientists, researchers and health professionals is a key component of OHSU’s diversity recruitment and outreach goals,” said Leslie Garcia, MPA, OHSU’s assistant chief diversity officer and director of OHSU’s Center for Diversity & Inclusion.

Dr. Fair sees this approach as researchers – who are often funded by public sector grants – doing their part to build the next generation of scientists and health care professionals. For more information, please visit the YES program page on Facebook.

The research described in this article is supported by the National Institutes of Health.
A colleague recently shared a story about an unemployed, single pregnant woman in Portland, Ore., who was unable to afford wholesome food such as fruits, vegetables and whole grains. On most days, her food intake consisted of a fast food hamburger bought with deep discount coupons. Her baby will suffer from malnutrition to the same degree as offspring born to women experiencing famine in an underdeveloped country. This should not be happening anywhere in the world.

Good nutrition must be a high priority for pregnant women to ensure the health of future generations. Every woman of reproductive age should know the elements of a healthy diet and should have access to wholesome foods. Regular, consistent nutritional advice from a primary care provider is highly likely to have an impact and lead to behavior change in pregnant patients.

The OHSU Bob and Charlee Moore Institute for Nutrition & Wellness advocates for change in the training of health care professionals so they will have the knowledge and confidence to provide solid nutritional advice to patients. Along with OHSU alumni and Moore Institute Steering Committee members Susan Bagby, M.D. ’71, Eric Orwoll, M.D. ’79, Jonathan Purnell, M.D. ’86, and Mary Stenzel-Poore, Ph.D. ’87, we are creating a network for sharing knowledge and strategies about nutrition and healthy lifestyles. We’re also supporting public policies that promote improved nutritional health in the community, and institute representatives are deeply involved in policy considerations at every level.

“Her baby will suffer from malnutrition to the same degree as offspring born to women experiencing famine in an underdeveloped country. This should not be happening anywhere in the world.”

– Dr. Thornburg

An enormous body of evidence points to intrauterine nutrition as a dominant culprit in these disturbing health trends. Both low birth weight and excessive birth weight lead to hypertension, metabolic disease, coronary heart disease and heart failure in later life. It is now well established that maternal diet is a powerful determinant of the quality of fetal growth. Acquiring all the nutrients needed to properly construct robust organs is a difficult task for a fetus. If the flow of nutrients becomes inadequate, the fetus is designed to make life-changing compromises in organ integrity that impart vulnerability for disease in later life.

We’re headed toward a public health crisis, but you can help. While the numbers of cardiovascular disease-related deaths in the United States have been decreasing, other numbers tell a different story about the future of heart disease. Whereas some 10 percent of the population now has type 2 diabetes, the Centers for Disease Control and Prevention predict that 30 percent of the population will have type 2 diabetes by the year 2050 if the current trajectory holds. Given a diabetic’s high risk for developing cardiovascular disorders, the number of excess cases of coronary heart disease is expected to rise substantially during the next 25 years as increasing numbers of diabetic children reach middle age. This new demand will strain the health care delivery system and the economic resources of the entire country. And, even more alarming, this next generation may be the first that is less healthy than their parents.

A colleague recently shared a story about an unemployed, single pregnant woman in Portland, Ore., who was unable to afford wholesome food such as fruits, vegetables and whole grains. On most days, her food intake consisted of a fast food hamburger bought with deep discount coupons. Her baby will suffer from malnutrition to the same degree as offspring born to women experiencing famine in an underdeveloped country. This should not be happening anywhere in the world.

Good nutrition must be a high priority for pregnant women to ensure the health of future generations. Every woman of reproductive age should know the elements of a healthy diet and should have access to wholesome foods. Regular, consistent nutritional advice from a primary care provider is highly likely to have an impact and lead to behavior change in pregnant patients.

The OHSU Bob and Charlee Moore Institute for Nutrition & Wellness advocates for change in the training of health care professionals so they will have the knowledge and confidence to provide solid nutritional advice to patients. Along with OHSU alumni and Moore Institute Steering Committee members Susan Bagby, M.D. ’71, Eric Orwoll, M.D. ’79, Jonathan Purnell, M.D. ’86, and Mary Stenzel-Poore, Ph.D. ’87, we are creating a network for sharing knowledge and strategies about nutrition and healthy lifestyles. We’re also supporting public policies that promote improved nutritional health in the community, and institute representatives are deeply involved in policy considerations at every level.

Please join the conversation and help reduce the prevalence of chronic diseases across the lifespan in current and future generations by promoting healthy, nutrient-rich diets based on whole-foods in early life – before conception, during pregnancy and lactation, and in infancy and early childhood.

Contact us at mooreinstitute@ohsu.edu or visit: www.ohsu.edu/mooreinstitute.
Balancing Act

In the children's book *Balancing Act*, by Ellen Stoll Walsh, two mice make a teeter-totter with a stick. They balance (ta-dah!) until a salamander disrupts their equilibrium. Another salamander balances it out again. Then a frog joins them, and another frog evens things out. Finally, a heavy bird flops down on one side. All the animals cluster together to create balance – until the stick breaks. The original mice take half the stick and make a new teeter-totter.

Balance again. Ta-dah!

2 mice, 1 salamander

My daughter was born when I was finishing the final experiments for my Ph.D. I went back to the lab part-time soon afterward. It was great. I interacted with adults and felt productive, then came home and cuddled my newborn. Life was perfect.

Then I went back to complete my third year of medical school, and everything changed. My now 5-month-old daughter wasn't sleeping. I slept three hours a night and pumped milk standing in a VA bathroom. I was exhausted, miserable, and I missed seeing my beautiful little girl.

2 mice, 2 salamanders

For my M.D., I studied in stolen moments, never at home. My exam scores suffered, but I only had to pass the test to be a doctor.

For my dissertation, I wrote whenever my daughter slept and stopped when she woke up. Amazingly, I finished. Sometimes you don't know what's possible until you're forced to do it.

2 mice, 2 salamanders, 1 frog

Two months into residency at OHSU I had another baby. Now we are living near my husband's family. I have plenty of milk, and my perfect son sleeps through the night.

How hard can it be?

2 mice, 2 salamanders, 2 frogs

We never had enough time when it was just my husband and me. Then we had a baby and wondered what we did with ourselves before. Now we have two kids and think life was so easy with just one. We have time for everything and nothing, just like always.

2 mice, 2 salamanders, 2 frogs, 1 bird

I am the luckiest working mom ever. My husband stays home with the kids, and his parents donate emergency babysitting. I love what I do. I work with great people. Everyone around me has done everything possible to make this as easy as it can be.

And yet it's still hard. A week ago, my baby didn't want to nurse, and he pushed me away. What if he prefers a bottle? He drinks from bottles all day long. I hate that.

I want to be two people at once: one working in the hospital and another at home with two kids. I don't want to be just one thing. I want balance.

“I want to be two people at once: one working in the hospital and another at home with two kids. I don’t want to be just one thing. I want balance.”

– Dr. Christy

2 mice

Balance is hard to come by. This was written one-handed, while feeding my baby. And it’s written with a structure taken from a children's book so I don’t have to create a narrative. Still, I got it done. That feels like balance.

How many people have a job they love and come home to two beautiful children and a supportive spouse? Recently, after a busy day at work, my husband made dinner while I read to my daughter and my son smiled. My crazy life felt perfect.

Ta-dah!

Editor’s note: A longer version of this essay first appeared in Healthy Families, the OHSU Doernbecher Children’s Hospital blog.
The other match

Katie Iverson, fourth-year medical student, counts herself lucky. With an interest in general surgery, Iverson interviewed at 14 residency programs across the nation this year. For her very first interview in November, she stayed not in a hotel room or on the couch of a friend-of-a-friend, but in the home of Carina Curnow, M.D. ’09.

Dr. Curnow, who lives in New Orleans and is a surgical resident at Louisiana State University, gave Iverson tips for interviewing and drove her to the interview itself. She took her to dinner afterward, and then, to make sure she received the full New Orleans experience, treated her to a local bar that Iverson characterizes as one “I never would have found myself.” Dr. Curnow even put her in contact with a fourth-year medical student at Tulane, where Iverson interviewed, for additional insights.

“I was not in a hotel or a couch, but in the home of an alumni host,” said Iverson. “It was wonderful to get an insider’s view of a place and to experience, however briefly, what it’s like to live there. It was very helpful. And the ability to save money is a clear bonus.”

Iverson’s experience was the result of HOST, which put her in touch with Dr. Curnow. The OHSU Help Our Students Travel, or HOST, program, administered by the OHSU Alumni Relations team and overseen by the School of Medicine Alumni Council, began more than 15 years ago. More than 80 alumni are signed up to participate, and the program is growing in student popularity.

“We’ve doubled the number of students who’ve submitted requests from last year and have a 50 percent match rate for students who make requests,” said Lauren Cox, assistant director of OHSU Alumni Relations and HOST coordinator. She adds that there were 30 total matches in this academic year in cities across the country, from Massachusetts to Texas, Hawaii to North Carolina.

And Georgia. Iverson also interviewed in Atlanta, and there she stayed with Dr. Winterberg, M.D. R ’99, assistant professor of pediatrics at Emory University School of Medicine. In addition to hosting Iverson overnight, Dr. Winterberg and her husband also shared information about what drew them to Atlanta, fun things to do locally and other appealing aspects of the area as well as general career advice.

“We thought this was an innovative and useful program, and Katie was delightful,” said Dr. Winterberg. “My three-year-old son was immediately glued to her, and he was the real host. I’m glad we were able to help.”

Alumni: Volunteer now for the HOST program!

We are in particular need of alumni hosts outside of Oregon. To volunteer, please email sm-alum@ohsu.edu.
Branching out to the Bay Area
OHSU Alumni Relations is working hard to connect with alumni beyond the Portland metro area. On March 10, an evening wine reception took place in San Francisco to discuss the new OHSU Knight Cardiovascular Institute. Hosted by Jack McAnulty, M.D. ’74, and Ed Murphy, M.D. ’76, and featuring institute co-directors Sanjiv Kaul, M.D., and Albert Starr, M.D., the event was attended by 50 people, including 22 alumni. A highlight was the reunion of Calvin Brenneman, M.D. ’73, with Dr. Starr, who had performed one of the first Starr-Edwards aortic valve implants on Dr. Brenneman’s father, who lived to age 90.

Reunions on the horizon
Reunion coordinators are busy planning gatherings for the classes of ’63, ’68, ’73, ’78, ’83 and ’03 (see page 18). If you are interested in coordinating your own class reunion this year or in the future, please contact the Alumni Relations Program at 503 552-0708.

Many thanks to our survey participants
Congratulations to Judy Zerzan, M.D. ’98 R ’00, MPH, who was selected in our drawing and won an iPad mini! We sincerely appreciate the almost 500 alumni who took the time to share their opinions in our communications survey. Your input is invaluable and will help us improve our communications program to better serve you.

OHSU Global Health Center
The OHSU Global Health Center is a university-wide program that promotes interprofessional global health education, research, service and advocacy. It offers several resources for alumni, including a rich program of lectures and conferences, opportunities for student mentorship in a community-based setting and a CME course that retrains late-career and retired health professionals. Visit www.ohsu.edu/ghc to learn more.

Email addresses, please
We’re sending more news and event information electronically these days. Don’t be left out. Contact us at sm-alum@ohsu.edu to update your contact information.

We’re also excited to launch our OHSU Alumni Email Address for Life program, offering an alumni email address to graduates of OHSU degree, certificate and training programs. Contact us at sm-alum@ohsu.edu to learn more.

TOAST TO GRADUATES
Each year in March, the School of Medicine Alumni Association, led by the Alumni Council, hosts a Graduates’ Reception to honor graduating students in both the M.D. and Graduate Studies programs and formally welcome them into the alumni family. More than 250 graduates, mentors and other guests gathered this year at the Center for Health & Healing to celebrate achievements.
The Beautiful Sound of Medical Communication

Family trauma reshapes the career of Elisabeth Guenther, M.D. ‘92, MPH

By Harry Lenhart

When her mother, a pianist and piano teacher, lost the use of her left hand after a surgery a few years ago, the trauma and sorrow of that experience sent Elisabeth (Lisa) Guenther, M.D. ‘92, MPH, on a personal journey that has reshaped her career.

“It was a medical error that was handled incredibly poorly and I thought at the time, ‘I know we can do better than this,’ said Dr. Guenther.

Dr. Guenther took up the cause. A pediatric emergency medicine doctor and associate professor of pediatrics at the University of Utah, she buried herself in research on disclosure and medical communication. When she took her mother to Seattle for further treatment, she met with Thomas Gallagher, M.D., a professor at the University of Washington School of Medicine and an authority on ethical issues related to doctor-patient relationships.

“I just cold-called him from my mom’s hospital room and said ‘I want to get involved in this,’ and since then, we’ve been collaborating. It changed my whole research career focus. It’s become my passion to say, okay, we can deliver great medical care, but I want to make sure that we also concentrate on patient-centered communication and honesty and transparency along with it.”

She won a federal planning grant to develop a protocol at the University of Utah for disclosing unanticipated outcomes to patients and their families and embarked on a graduate study program in conflict resolution. “I realized that these are very stressful, loaded interactions for both physicians and patients, and a mediator can play an important role.”

She established a Center for Medical Communication and Conflict Resolution at her medical school and is developing a simulation lab program for medical students and residents there to teach communication skills needed in those difficult conversations.

“Our communication skills not only make for a better medical experience but help improve the safety and quality of the care we provide as well as decrease costs. And it’s definitely a teachable skill.”

She cites Joint Commission data showing that poor communication is the number one cause of “sentinel events” – unexpected occurrences involving death or serious physical or psychological injury to a patient.

Dr. Guenther’s journey has come full circle. She was raised in Corvallis, Ore., the child of a now retired math professor at Oregon State University and a woman who not long ago was president of the Oregon Music Teachers Association. During her medical school years in Portland, Dr. Guenther appreciated the collegiality of her class. “We had a wonderful, remarkably tight-knit, hard-working class,” she remembers, with none of the cutthroat competition sometimes found in other medical schools.

“Now well into her career, she misses the Northwest, which is why she is pulling up stakes in Utah later this year and transporting her skills and dynamism back to Oregon. She plans to apply them in a still-to-be-finalized effort centered on collaborative disclosure and conflict resolution while remaining a consultant to the center she started in Utah. In this way, she’s spreading the word: physician-patient conversations should heal, not harm, and that’s music to Dr. Guenther’s ears.
Supporting Rural Primary Care

The Primary Health Care Loan Forgiveness Program, created by the 2011 Oregon Legislature and administered by the Oregon Office of Rural Health at OHSU, can award a maximum of $35,000 a year for one or two years to a medical, physician assistant or nurse practitioner student enrolled in an approved rural-specific Oregon training program.

• Dean Defrees, of Baker City, Ore., third-year medical student
• Anisa Richardson, of Wrangell, Alaska, third-year medical student
• Jay Williams, of Spokane, Wash., fourth-year medical student
• Sarah Williams, of Boulder, Colo., fourth-year medical student

The forgivable loans are applied toward educational expenses during one or more school years. Students commit to one year of clinical service in an approved rural Oregon practice site for each year of the award.

Practice in Prineville

Drs. Heidi and Carey Allen find their niche in rural Oregon

By Rachel Shafer

It’s a challenge for primary care providers everywhere: How to convince patients to make preventive, routine care a priority instead of waiting until disease arrives to visit a doctor? In the Central Oregon town of Prineville, population 9,253, where patients might live on ranching spreads 60 miles from a clinic, the challenge is even greater.

“I see older gentlemen who have come here to work the land, who’ve lived on their own for many years, and for them, seeing a doctor to prevent sickness is not in their thinking,” said Carey Allen, M.D. R’11, a family physician who began practicing in Prineville last year. “We see a subset of people who are very independent and want to stay that way.”

“The training here allows people to be really comfortable with the scope of practice needed in small communities and places with geographic barriers to access.” – Dr. Hollander-Rodriguez

Subsequently, Dr. Allen and his wife and fellow family practitioner, Heidi Allen, M.D. R’11, often reconfigure treatment plans and spend as much time coaching for health as providing care.

“It’s all part of belonging to this rural community, and they like it that way. Ever since a watershed rotation at the University of Iowa Carver College of Medicine in rural family medicine, they’ve been focused on training as family physicians and working together in a small community.

Happily, the high school sweethearts found the right fit with OHSU’s Cascades East Family Medicine Residency Program in Klamath Falls, Ore. “The training prepares you for small town practice where you’re both the first-line provider and the one wearing the cardiology hat, the endocrinologist hat and multiple other hats,” said Dr. Heidi Allen. “So we felt prepared for a place like Prineville.”

Deeply involved in their community, the Allens lead the area’s pulmonary rehabilitation program, teach classes and even participate in city council affairs. It’s a facet of practice they honed in Klamath Falls, where community engagement is strongly emphasized.

Cascades East plays a part in the School of Medicine’s strategy to serve rural workforce needs. Sixty percent of its graduates practice in communities with 25,000 or fewer people. Of the eight graduates of the Class of 2012, seven are practicing in communities such as Bandon, Ore., and Trail, British Columbia.

Joyce Hollander-Rodriguez, M.D. ’00 R ’03, assistant professor of family medicine and program director, is also a graduate. “I wanted to focus on populations most in need of care, and rural poverty populations are very underserved,” she said. “The training here allows people to be really comfortable with the scope of practice needed in small communities and places with geographic barriers to access.”

The Allens, for their part, are settling into Prineville life. They’re anticipating the birth of their first child as well as the opening of a new local hospital and wellness center.

One wonders, though, practicing in the same town, clinic and specialty, do they ever tire of each other? “I think Heidi gets sick of me sometimes,” said Dr. Carey Allen, laughing. “But I love having her here. I always have someone to bounce stuff off of.” For this committed couple, it’s nothing but good health served with small town spirit for patients walking through their clinic door.
Anatomy of a Distinguished Professor
By Maija Anderson

Consider the power of friendship. Some of the classmates of Reid “Sam” Connell, Ph.D. ’67, were also children of University of Oregon Medical School (OHSU’s precursor) luminaries such as renowned hematologist Edwin Osgood, M.D., and Dean David Baird, M.D. Through these friendships, “I was inspired to make my own contributions to the intellectual environment of the medical school,” said Dr. Connell.

He launched his career in 1962 as a training fellow in the Department of Anatomy (now the Department of Cell & Developmental Biology). The 1960s marked a “golden age” of basic science research, he remembers, fostered by ample funding from the National Institutes of Health. Dr. Connell took full advantage, working on major projects under Anthony Pearson, Ph.D., and Robert Bacon, Ph.D.

Joining the faculty in 1969, Dr. Connell soon became distinguished for his teaching knack, receiving 15 awards during his tenure. Outside the classroom and lab, Dr. Connell also served as vice provost for Allied Health Programs, School of Medicine Alumni Association president and member of the OHSU Foundation Board of Trustees.

“The engagement of students in cutting-edge research continues to distinguish our school as well as the strong network of alumni who provide opportunities for students to gain clinical experience,” said Dr. Connell. These generations of students, he concluded, have been the high point of his career.

FOUNDATION Reid (Sam) Connell, Ph.D. ’67, professor emeritus of cell and developmental biology, taught anatomy for many years and also served in several OHSU leadership positions.

Upcoming Events

OHSU History Exhibit: “125 Years of Teaching, Healing and Discovery”
Through July 8
Oregon Historical Society Museum, Portland

M.D. Class of 1973 Reunion
May 18
Bridgeport Brew Pub, Portland

OHSU Research Week
May 20–24
Marquam Hill campus, Portland

School of Medicine Hooding and Commencement Ceremony
June 3
Arlene Schnitzer Concert Hall, Portland

M.D. Class of 1963 Reunion
June 7
The Benson Hotel, Portland

White Coat Ceremony
Aug. 16
Location to be announced

M.D. Class of 2003 Reunion
Aug. 24–25
Portland

M.D. Class of 1968 Reunion
Sept. 7–8
Portland

M.D. Class of 1983 Reunion
Sept. 7–8
Portland

School of Medicine Alumni Association Holiday Reception
Dec. 8
The Town Club, Portland
Call 503 552-0708 for the latest information

Keep in Touch

E-mail us at sm-alum@ohsu.edu
Write to Bridges Editor c/o Rachel Shafer, 3181 S.W. Sam Jackson Park Road MC L102, Portland, OR 97239
Join our LinkedIn group, www.ohsu.edu/som/alumni and click on the LinkedIn icon
Web resources and information at www.ohsu.edu/som/alumni

For the latest information, including more events, go to www.ohsu.edu/som/alumni.
Class Notes

We welcome your news and photos. Email sm-alum@ohsu.edu or write a note to Bridges Class Notes c/o Rachel Shafer, OHSU School of Medicine, 3181 SW Sam Jackson Park Road MC L102, Portland, OR 97239. Please write a maximum of 250 words and include your name, degree/training information and graduation/completion year. We may not be able to publish all items and may edit for length and clarity.

1950s

James (Jim) E. Davis, M.D. ’53, of Bend, Ore., retired from family medicine in 1987. For the past eight years, he and his wife, Deanna, have led a volunteer effort to build and maintain snowshoe-only trails in Deschutes National Forest sno-parks. He’s completed seven trails, among the first in the national forest system. Dr. Davis also enjoys alpine skiing, hiking and cycling.

1960s

Lawrence Mason, M.D. ’67 R ’70, of Vancouver, Wash., retired at the end of February after 40 years of pediatric practice at The Vancouver Clinic. He’s looking forward to backpacking more and spending time with family.

1970s

James K. Lace, M.D. R ’77, of Salem, Ore., helps run the nonprofit Orphans Foundation Fund, based in Tanzania, www.orphansfoundationfund.org. He still practices at the pediatric clinic he founded, Child Health Associates of Salem (CHAOS), where Suzanne Dinsmore, M.D. ’79, Fara Etzel, M.D. R ’02, Antoinette Farah, M.D. ’94 R ’97, Kimberly Heggen, M.D. ’92 R ’95, Jenny Hoelter, M.D. ’04, Krisi Kamstra, MPAS ’07, Margie Pascual, MPAS ’12, Amelia Bogart Roth, M.D. R ’11, John Roth, MPAS ’08, Angie Webber, MPAS ’04, and Diana Whiteaker, MPAS ’12, also practice.

1980s

U.S. Navy Reserve Capt. Richard Mullins, M.D. R ’80, of Portland, Ore., completed a deployment in southern Afghanistan, returning to the U.S. in November 2012. Capt. Mullins, OHSU professor of surgery, served as the officer in charge of Forward Surgical Team, located at Forward Operating Base Lagman. His team treated critically injured patients, including coalition forces and civilian and military Afghan citizens.

Catherine Otto, B.S. ’81 (Medical Technology), Ph.D., of Salisbury, Md., joined the faculty of Salisbury University as a member of the Medical Laboratory Sciences program.

Ten years ago, Brenda Kehoe, M.D. ’85, R ’89, Rob Skinner, M.D. ’85, R ’91, Mike Powers, M.D. ’85, R ’91, Steve Urman, Ph.D. ’82, M.D. ’85, R ’90, Bob Bailey, M.D. ’85, with Jim Kehoe and Bill Rashid re-formed the band they had started as medical students.

Called the Moderator Band after the right ventricle structure, the Portland-area musicians meet every Wednesday night to play “eclectic rock and roll.” Their performances benefit a new charity each year.

Carol Ann Kuchmak, M.D. ’89, of Napa, Calif., retired in 2010 from Napa State Hospital, California Department of Mental Health.

1990s

Megan Laurance, Ph.D. ’97, of San Francisco, Calif., was hired as the new research informationist at the UCSF Library and Center for Knowledge Management. Previously, she spent 12 years at Ingenuity Systems where she helped develop biological knowledge bases, ontologies and web-based software solutions for the analysis and interpretation of genomic and genetic data.

2000s

Tania Thomas, M.D., MPH ’03, and Scott Heysell, M.D., MPH ’03, are married and have two children, Dahlia, four, and newborn Asher. They are on the University of Virginia faculty. Dr. Thomas’s work explores the pre-B cell response to acute TB infection in children while validating non-culture based diagnostics in a cohort from rural Tanzania. Dr. Heysell has developed a pharmacokinetic bioassay for optimization of drug-resistant TB therapy among a cohort of adults in Tanzania’s TB referral hospital. They split time between Tanzania and Charlottesville, Va.

Beckie Tempel, Ph.D. ’08, of Beaverton, Ore., was awarded her first patent for identifying potential live vaccine strains of Francisella tularensis, “the causative agent of tularemia, a severe and sometimes fatal disease, also classified as a Tier 1 select agent making it a biodefense research priority.” When not in the lab, she is an active member of the Oregon Road Runners Club and enjoys cooking, crafting and cat-herding with her husband of 12 years.

In Memoriam

Arthur Brown, Ph.D., of Portland, Ore., died Jan. 8. Dr. Brown, professor emeritus of physiology and pharmacology, was a longtime professor for the dental and medical schools.

Scott Mader, M.D., of West Linn, Ore., died Feb. 18 at age 57. Dr. Mader was an assistant chief of staff for extended care at the Portland Veterans Affairs Medical Center and professor of medicine.

Richard W. Olmsted, M.D. R ’90, MPH, of Portland, Ore., died March 8 at age 92. Dr. Olmsted, OHSU professor emeritus of pediatrics, served as chair of the department from 1962 to 1973.


Thomas Lindell, M.D. R ’73, of Portland, Ore., died Jan. 11 at age 71.

Malcolm MacGregor, M.D. ’53, of Vancouver, Wash., died at age 87.

Allan McClary, M.D. ’46, of Glen Arm, Md., died Feb. 17 at age 90.

Gordon Myers, M.D. ’50, of Portland, Ore., died at age 88.

Marsh Perkins, M.D. R ’58, of Beaverton, Ore., died Jan. 4 at age 97.

Irene Pierovich, B.S. ’60 (Medical Technology), of Portland, Ore., died Nov. 12, 2012, at age 85.


Philip Snedecor, M.D. R ’53, R ’58, of Portland, Ore., died March 3 at age 86.

Henry Storino, M.D. R ’64, of Portland, Ore., died Feb. 24 at age 91.
ON THE COVER
Damien Fair, PA-C, Ph.D., assistant professor of behavioral neuroscience and psychiatry, in OHSU’s Advanced Imaging Research Center.

Credit: Michael McDermott

Nothing ventured, nothing gained.

Philanthropy is venturing out.

Explore the new power of venture philanthropy at OHSU, one of the nation’s top research universities.

Invest in innovation
Commercialize discoveries
Advance Oregon’s economy
Improve human health
Get a tax break*

www.venture-philanthropy.ohsufoundation.org

For more information, visit www.venture-philanthropy.ohsufoundation.org or contact Chris Tye at 503 494-0104.

*Individuals and corporations that donate to this OHSU program may be eligible for an Oregon state tax credit and a federal charitable deduction.