

# UW Medicine

## The Good Journey

### ALSO IN THIS ISSUE

Decoding the  
**Living Genome**

**Results** From the  
Alumni Survey

**Standing Up** for  
Women and Children



# A GRADUATE. A BELIEF IN COMMUNITY. A GIFT.



**L**awrence L. Knight, M.D. '58, knows that medical school is a major expense. He and his wife, Kathryn, also know that our communities have an urgent need for physicians. That's why the Knights are leaving a portion of their IRA to support scholarships for medical students from Idaho.

"In Idaho, we very much need primary-care physicians," says Knight. "With our scholarship, we want to reduce student debt — so that students can consider coming back to small towns to practice."

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# UW Medicine

A magazine for alumni and friends of the University of Washington School of Medicine

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VOL. 36, NO. 1 | SPRING 2013



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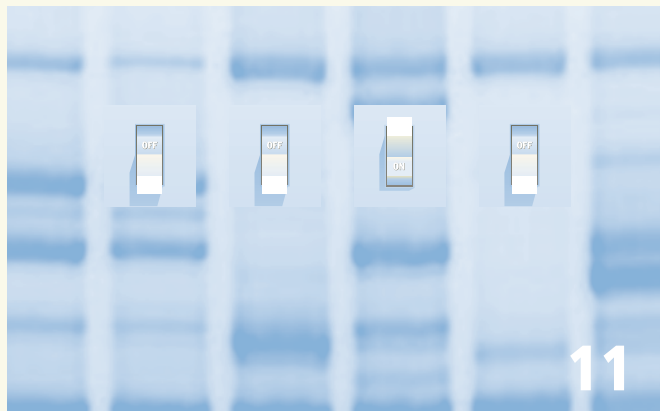
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- The honor roll: our alumni and friends volunteer for students
- And more at [uwmedmagazine.org](http://uwmedmagazine.org)



*"I'm still alive thanks to  
UW Medicine."* - David Watkins



**UW Medicine**

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## UW MEDICINE

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## AN OPERATING SYSTEM; A CIRCLE OF LIFE

The two lead stories in this issue of *UW Medicine* exemplify two very different sides of medicine. The ENCODE project, which has resulted in the development of an “operating system” for the human genome, opens a universe of options for new treatments and insights into health and the human body. Some of the most significant work in this landmark global project has emanated from the University of Washington, and the new directions it creates are truly remarkable and will change medicine as we know it.

The UW Center for Palliative Care was created at UW Medicine to ensure that faculty, staff, students and trainees receive the knowledge and skills that will enhance the quality of care they provide patients with chronic illness, during emergency care and at life’s end. Those with life-limiting illnesses need our closest attention to ensure their lives are as healthy, comfortable and rewarding as possible. What’s vitally important is communication, and faculty in the new center are world leaders in understanding and guiding communication when patients and families need it most.

I extend my thanks to the many individuals involved at UW in the ENCODE project and the Center for Palliative Care. And thank you to the thousands of UW School of Medicine alumni for your outstanding work to improve the lives of people throughout the world.

Sincerely,



Paul G. Ramsey, M.D.  
CEO, UW MEDICINE  
EXECUTIVE VICE PRESIDENT FOR MEDICAL AFFAIRS AND  
DEAN OF THE SCHOOL OF MEDICINE, UNIVERSITY OF WASHINGTON



Photo: Clare McLean



Photo: Sarah Rothschild



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### THE UW MEDICINE ALUMNI ASSOCIATION'S MISSION STATEMENT

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**1** Support the University of Washington School of Medicine in the fulfillment of its mission, serving as diplomats and advocates in the communities where medical alumni live and work.

**2** Provide support for students, residents and fellows at the UW School of Medicine through programs, scholarships, fellowships and financial contributions.

**3** Establish and maintain a sense of unity among alumni.

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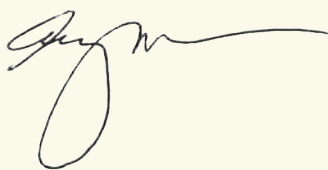
## THE POWER OF LISTENING

If asked to describe my first six months as president of the alumni association in one word, I would choose "listening." I've joined Alumni Relations Task Force meetings to review responses to this winter's survey, spoken with alumni one-on-one and hosted students in my home for dinner and discussion.

A common theme in all these interactions: the strong desire for the alumni association to preserve its traditions while providing more meaningful opportunities for alumni to connect with one another and to mentor current students (page 18 contains more details). The task force will take a closer look at what that means through a series of focus groups involving our constituents, including current students and a variety of alumni.

Over the coming year, the alumni association will be busy hosting alumni events in the WWAMI region and Portland, providing E-11s with white coats to commemorate the transition to their clinical years, welcoming the Class of 2013 into the alumni ranks, and welcoming hundreds of alumni back to the UW School of Medicine at the 2013 Reunion Weekend. See page 20 for more information.

In short, it is an exciting time to be an alumnus or alumna of the UW School of Medicine. I look forward to continuing to see many of you at the student-run clinics, events (including the reunion!) and around town.



Angela J. Chien, M.D. '95  
PRESIDENT, UW MEDICINE ALUMNI ASSOCIATION  
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P.S. Want to learn more about your alumni association? Visit [uwmedalumni.org](http://uwmedalumni.org) or contact our alumni relations staff at 206.685.1875, toll free at 1.866.633.2586, or [medalum@uw.edu](mailto:medalum@uw.edu).



For more news from UW Medicine, see our new *Top of Mind* section on page 16, or visit [uwmedicine.org](http://uwmedicine.org), where you can also access a wealth of information regarding health services and other resources. You'll also find UW Medicine on Facebook and Twitter.

## Research

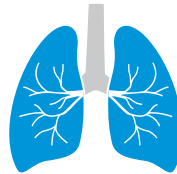


### The Global Burden of Diseases, Injuries and Risk Factors 2010 Study

One of the main findings from the *Global Burden of Diseases, Injuries and Risk Factors 2010 Study* (GBD) is that we are living longer but experiencing more disability and chronic diseases. The study, led by the Institute for Health Metrics and Evaluation (IHME) at the University of Washington, involved 486 experts and leaders from 49 countries and 302 institutions. The study's results, published in *The Lancet*, reveal that just 50 medical diseases and causes such as violence account for 78 percent of the global health burden. While ischemic heart disease and stroke remained at the top of the list, diseases such as diabetes and lung cancer moved up, and communicable conditions such as diarrhea and tuberculosis moved down. One of the most dramatic findings is a substantial drop in child mortality, but the study showed the number of deaths in adults aged 15 to 49 rose 44 percent between 1970 and 2010, due in large part to increases in violence and HIV/AIDS. Explore the GBD with colorful, interactive data sets, and learn about the University's partnership with the Bill & Melinda Gates Foundation at the IHME's website: [healthmetricsandevaluation.org](http://healthmetricsandevaluation.org).

### Racial segregation a factor in lung cancer mortality rates

Leah Backhus, M.D., UW assistant professor of surgery in the Division of Cardiothoracic Surgery, and her team found that between 2003 and 2007 the overall lung cancer mortality rate in the U.S. was 58.9 percent for blacks as opposed to 52.4 percent for whites. The study results, published in *JAMA Surgery*, also revealed that blacks living in counties with the highest levels of segregation had a 10 percent higher mortality rate than blacks residing in counties with the lowest level of segregation. Backhus suggests that public health initiatives in highly segregated counties should target smoking cessation and early cancer screening programs to equalize mortality rates.



### Complex diseases and genetic variants: 1 million+ mutations in 5,000 years

Joshua Akey, Ph.D., UW associate professor in the Department of Genome Sciences, was co-author of a study, published in *Nature*, that found that the last 5,000 years have been full of change in the human genome. Using deep sequencing in a sample population of approximately 6,500 Americans, the researchers set out to gain a better understanding of how rare genetic variants contribute to risk for complex diseases. In the group of test subjects, two-thirds of whom were of European descent and one-third of African descent, they found more than one million single-nucleotide variants. Occurring in less than .1 percent of the sample

population, some of these variants (approximately 14 percent) were potentially harmful; the researchers determined that 86 percent of the potentially harmful variations had occurred in the past 5,000 years.

## Patient Care

### Surviving a ventricular fibrillation: odds have improved further

The odds of a person in the U.S. surviving ventricular fibrillation, a type of heart attack, are only 2 to 25 percent if they are located outside a hospital. In the Seattle-King County area, however, the likelihood is far higher: around 56 percent for much of the region, according to a new report from the Medic One Foundation. This is a tremendous difference — in fact, it is the highest reported survival rate worldwide — and it is made possible, in part, by the practice of continuous CPR. In turn, this achievement can be attributed to Medic One and its co-founder, UW Medicine emeritus faculty Leonard Cobb, M.D. Medic One responds to nearly 50,000 calls a year, and its highly trained paramedics provide advanced, life-saving care en route to the hospital. Partners involved in this collaboration include the Seattle Fire Department, the Medic One Foundation and its supporters, and many faculty and staff at UW Medicine. For a gripping story of one man's record-breaking resuscitation, see page 16.



### Brain cancer "cap" featured on KING5

In the last issue of the magazine, we mentioned the use of the NovoTTF-100A — a portable, non-invasive medical device that uses a low-intensity electric field to inhibit cancer-cell growth in glioblastomas, a deadly and common form of brain cancer. The story was recently covered by KING5 TV, and

an accompanying video featuring patient Reggie Chan and UW associate professor Maciej Mrugala, M.D., can be found at [KING5.com](http://KING5.com); search for "Mrugala." The cap is being tested on patients with recurrent glioblastoma at UW Medical Center.

### Education

#### Clinical instruction residency program begins in Kenya

UW Medicine residents in advanced training who are interested in a global health experience now have the opportunity to travel to the Naivasha District Hospital in rural Kenya as part of a new, collaborative effort directed by Aliza Monroe-Wise, M.D., a chief resident in global internal medicine from UW Medicine. Residents visit for four weeks, gaining experience with common medical problems found in Kenya as well as Kenyan culture, and working within the economic constraints imposed by practicing medicine in a low-income country. Residents also interact with the hospital's medical students, nurses, clinical officers and interns through bedside teaching, presentations, participation in morning reports, review of journal articles and curriculum development. Five residents have completed or are completing their four-week rotation at Naivasha, providing clinical instruction and support in internal medicine, general surgery, radiology, family medicine and ob-gyn. In total, 14 residents are scheduled to complete rotations by July.



#### Medical student earns gold medal in national poster competition

Second-year UW medical student Jacob Casey was awarded a gold medal in the Curēus poster competition for medical and health sciences students. When Casey embarked on the

Program last summer, his aim was to answer the following question: other than heart failure and sepsis, what are other complicating factors for patients with chronic kidney disease? With assistance from his mentors, Casey organized a 26,000-patient database to find out what complications lead to longer hospital stays, readmissions within 30 days after discharge — even death. He identified skin ulcers as a significant complication and submitted a poster summarizing his findings to the Curēus competition. "This project has given me greater fluency when it comes to understanding research and applying it to my clinical practice," Casey says. Three other UW medical students — Jay Gantz, Camille Asher and Blake Sampson — also received awards.

### WWAMI



#### Quick-acting MEDEX students fight fire

First-year MEDEX Northwest physician assistant trainees (L to R: Luke Lenehan, Christopher Varady, Ryan Frost and Dustin Golding) were awarded certificates of recognition on Jan. 8, 2013, at the Yakima City Council meeting for their selfless courage. While on a walk last October, they noticed smoke coming from a ground-level unit in their apartment complex. They called 911, pulled building fire alarms, went door to door to ensure everyone was evacuated, and employed fire extinguishers to attempt to control the fire before it spread.

### Notable

#### Three UW faculty members elected to Institute of Medicine

Three UW faculty members, two with faculty appointments in the Department of Global Health (administered jointly by the schools of public health and medicine), were elected to the Institute of Medicine. The distinction, one of the highest honors in the fields of health and medicine, recognizes outstanding professional achievement and commitment to service. These faculty include Chris Elias, M.D., MPH, UW clinical professor of global health and president of global development for the Bill & Melinda Gates Foundation, Thomas Fleming, Ph.D., UW professor of biostatistics and statistics, and Andy Stergachis, Ph.D., UW professor of epidemiology and of global health. Their election brings the total number of UW faculty members in the Institute of Medicine to 56.



#### Virtual reality, veterans and chronic pain

Controlling extreme pain is the premise behind SnowWorld,

a virtual reality video game developed by Hunter Hoffman, Ph.D., UW research scientist in the Department of Mechanical Engineering, and David Patterson, Ph.D., UW professor in the Department of Rehabilitation Medicine. While playing SnowWorld, patients can be distracted from painful medical procedures, such as the cleansing of burn wounds. Last fall, NBC produced a feature on Lt. Sam Brown, who had been badly burned on a tour in Afghanistan and used SnowWorld during his recovery. To learn more about this novel program and Brown's inspiring story, visit [nbcnews.com](http://nbcnews.com) and search for "Sam Brown virtual."



# The Good Journey

**N**ot long after their son died of a dog bite turned septic, his parents turned to their son's physician, Randy Curtis, M.D., Res. '91, '92, MPH. Then a resident, Curtis had spent 20 desperate hours in the ICU, trying to save the young man's life with one medical procedure after another. While Curtis updated the family periodically on progress, they were rarely allowed in the room.

The parents knew Curtis had done everything he could, and they were grateful. They also delivered another message. "What really haunted them was not having the opportunity to be at their son's bedside," Curtis says.

"That experience and experiences like it have really changed the way we provide intensive care," he continues. And they also are at the core of the creation of the University of Washington Palliative Care Center of Excellence, a collaborative effort that includes several schools at the UW, including medicine, nursing, social work and public health.

## More than end-of-life care

Curtis, the director of the UW Palliative Care Center of Excellence (PCCE) and holder of the A. Bruce Montgomery-American Lung Association Endowed Chair in Pulmonary and Critical Care Medicine, is quick to point out that palliative care is more than end-of-life care. Rather, palliative care is specialized care for serious illnesses. This broader definition includes not only the dying, but also people facing the possibility of death — such as a car-crash victim in the ICU — and people who have chronic, life-limiting illnesses like emphysema or heart failure. Palliative care includes the psychological, social and spiritual dimensions of illness, as well as the physical.

What patients facing these types of illnesses need is clear communication; they and their families need to know their options. The choices are not always clear-cut, a by-product of the success of modern medicine. "Our ability to make medical advances has not been matched by our ability to help patients and families decide whether a therapy — given



“We were always communicating about how she was doing and what needed to be changed. Without palliative care, I believe we could’ve lost her a lot sooner.” — Mark Shimada

its benefits and burdens — is something that they want,” says Curtis. Aggressive treatments are not always in a patient’s best interests. Or even in their world view.

“Culture becomes more important at critical junctures in our life — birth, puberty, marriage, serious illness and death,” says Ardith Doorenbos, Ph.D., R.N., FAAN. Doorenbos is a UW associate professor in the Department of Biobehavioral Nursing and Health Systems, with appointments in global health and anesthesiology.

Culture, however, is as variable as each individual patient. Doorenbos, co-director of the PCCE’s research core and a former hospice nurse, points to two recent patients: both men, both Hindu, both with terminal cancer and both being treated at the Seattle Cancer Care Alliance, a collaboration of UW Medicine, Fred Hutchinson Cancer Research Center and Seattle Children’s.

Despite the similarities in their circumstances, the men wanted very different care. One refused the technology related to life support because he wanted to die at home with religious observances. The second patient had a completely different view. “He thought the gods provided him with a wonderful doctor and a wonderful hospital,” Doorenbos says. This man took advantage of life-prolonging expertise, and he died in the hospital.

Both men wanted a dignified death. Both — because their caregivers listened to their needs — received one. This is the key to palliative care.

### The power of listening

“We know that when doctors talk to patients or family members, they spend about 70 percent of the time talking and only 30 percent of the time listening,” says Curtis.

In palliative care, teaching physicians and other healthcare providers to listen more is crucial. The first issue, though, is simply being able to start a conversation about palliative care. “Families think the doctors should bring it up,” says Curtis. And the physicians, often uncomfortable about the topic, must steel themselves for these talks. The result is that the conversation can feel clipped, forced — sometimes even uncaring.

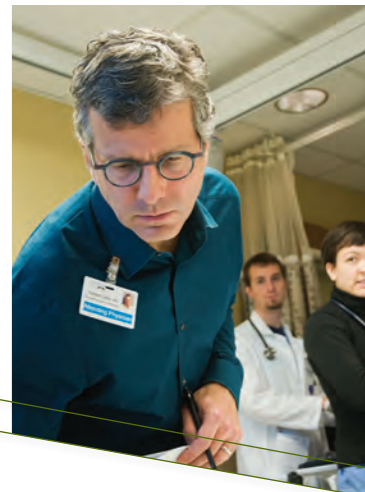
Part of the center’s mission is to educate physicians, nurses, other caregivers, patients and families about having these conversations. Doorenbos, for instance, teaches UW students from various disciplines — nursing, medicine, pharmacy, rehabilitation, dentistry, social work — how to conduct a family conference, talk about hospice care and address advanced care planning. It involves role play; it involves practicing.

“Communication is a skill, like driving,” says Curtis. “You can’t learn it by having someone lecture you about it.”





Randy Curtis, M.D., Res. '91, '92, MPH, goes on rounds with trainees. Teaching the next generation of healthcare professionals about palliative care is a crucial part of the UW Palliative Care Center of Excellence's mission.



## The vision

UW Medicine has a vision for the Palliative Care Center of Excellence — the integration of research, education and care so that every patient, wherever they enter the UW Medicine health system, has access to excellent palliative care.

What would this look like from a patient's angle? Today, there are palliative care services at Harborview Medical Center and UW Medical Center, as well as at UW Medicine's partner and affiliate institutions, including Seattle Children's, Seattle Cancer Care Alliance and the VA. Curtis wants to go deeper, making sure that all caregivers throughout the system know how to provide basic palliative care — how to assess and treat symptoms, talk about values and quality of life, and ensure that patients and care teams have access to a clinician whose specialty is palliative care, if they need one.

In creating the center, Curtis and his colleagues are building on educational and research programs already in place in the UW School of Medicine, the UW School of Nursing, and elsewhere at the University. For instance, UW Medicine's palliative care

fellowship, which draws residents from internal medicine, pediatrics, family medicine, psychiatry and other specialties, provides a year's immersion in palliative medicine.

Research efforts are another priority, and these efforts have been under way for some time. For example, Curtis and his colleagues are combining research and training in a program called Code Talk, in which internal medicine residents and nurse practitioner students learn and practice skills — giving bad news, for instance — in a multi-day training. Initial results show that participants are learning and using important communication skills.

The program also will build on best practices established by programs like Harborview's Outpatient Palliative and Supportive Medicine Service, a program that takes care of people like Kimiko "Pinky" Camara.



Darrell Owens, DNP, MSN, visits with Mark Shimada and his mother, Pinky Camara, at their home. House calls are part of Harborview Medical Center's Outpatient Palliative and Supportive Medicine Service for medically fragile patients.

### At home with Mark Shimada

Pinky Camara had been ill for four years with chronic obstructive pulmonary disease (COPD) when her health took a turn for the worse in December 2011. She began hospice care, and her son, Mark Shimada, decided to stay home with her. He also decided to move his mother's care, previously provided by a gerontologist, to Curtis. The difference in Curtis' approach was crystal clear.

"Dr. Curtis was so much more forthcoming with some of the other options to provide quality care for my mom," says Shimada. For instance, Curtis gave him the directive that asks patients to consider how they want to be cared for at the end of their lives. "The gerontologist never mentioned anything like that," Shimada says.

When it became too difficult for his mother to visit Curtis at Harborview, Harborview came to her. Darrell Owens, DNP, MSN, is director of the medical center's Outpatient Palliative and Supportive Medicine Service, and house calls like these are a large part of his practice. The service supports patients like Camara, who received hospice care, and patients at other points along the palliative care spectrum.

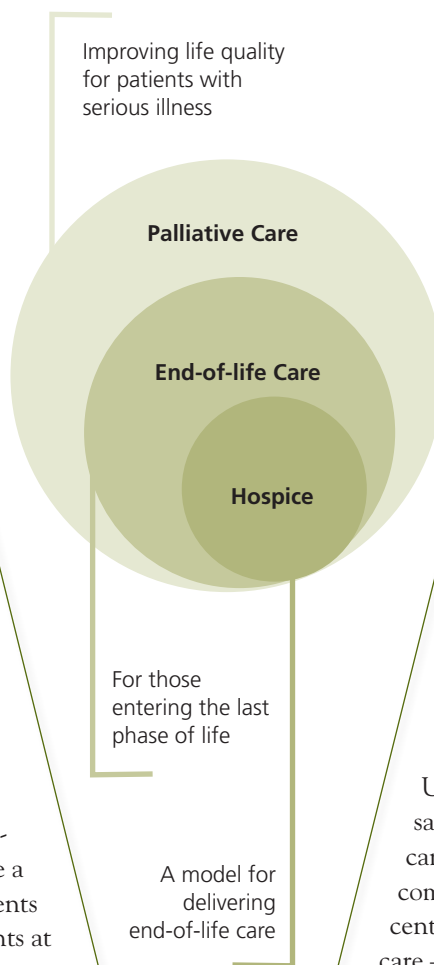
"The decision to provide medical management to people at home arose after it became obvious that patients were just too medically fragile to come to a clinic visit. Instead, they were going to the emergency department," says Owens.

The at-home approach worked. "We were always communicating about how she was doing and what needed to be changed," says Shimada. "Without palliative care, I believe we could've lost her a lot sooner."

"Communication  
is a skill, like driving."

— Randy Curtis, M.D., MPH

## CIRCLES OF CARE



### The good journey

As the UW Palliative Care Center of Excellence develops, Curtis and his colleagues expect to accomplish a great deal, including developing working standards and best practices for health-care providers in the UW Medicine system. They also will foster research — a pilot grant program is in the works, for example — and they plan to continue refining and integrating curricula across multiple schools, including more opportunities for students from different disciplines to learn together.

The end goal is that all UW Medicine patients receive the same kind of high-quality palliative care that Pinky Camara received: compassionate, respectful and patient-centered. Being part of this kind of care — this medical journey — is important not only for health professionals but also for patients' families.

Near the end of Camara's life, she had good days and agitated days. Some days she wouldn't eat, or she couldn't talk above a whisper, or she forgot who Shimada was. He came to terms with it. It was part of palliative care.

"I had to stop thinking in terms of 'can' and 'can't' or 'should' and 'shouldn't,'" Shimada says. "I just had to meet my mother where she was."

[More at uwmedmagazine.org »](http://uwmedmagazine.org)

Our faculty talk about palliative care. Learn how treating AIDS patients led to an epiphany, how an oncologist is creating new models for his colleagues, and how caring for sick children poses a different set of challenges.



# Decoding the living genome: ENCODE

**J**ohn Stamatoyannopoulos, M.D. '95, would like to draw a distinction. First, there is the human genome — sequenced for the first time a dozen years ago in an impressive, significant undertaking that shows the basic genetic roadmap of the human body.

Then there is the living genome: the physical packaging of the genome in cells into a molecule called chromatin that determines, at the cellular level, how we function — including the ways in which we are vulnerable to disease or respond to the environment or to medication.

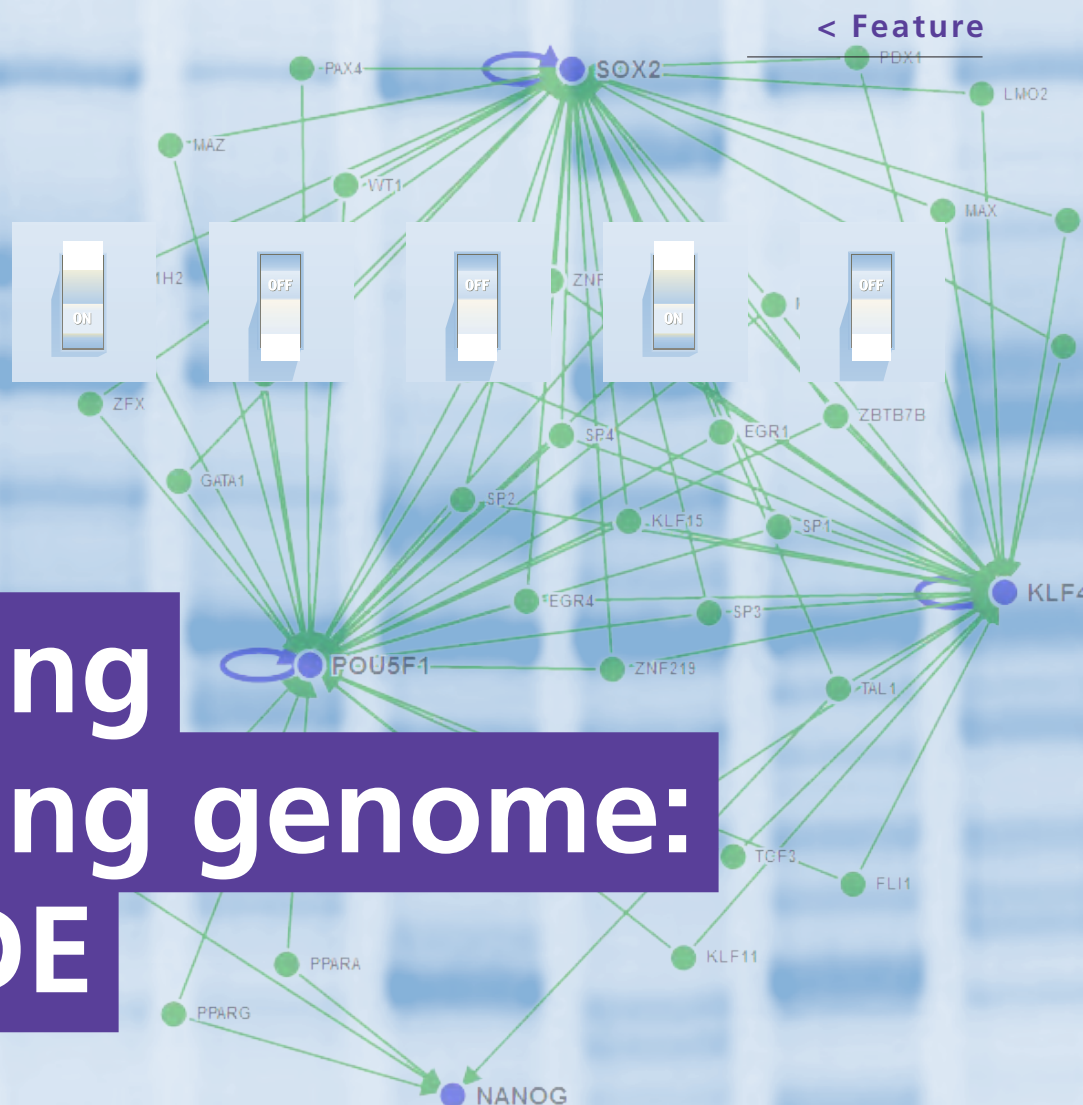
Approximately nine years ago, Stamatoyannopoulos, UW associate professor of genome sciences, and his

colleagues at UW Medicine, Fred Hutchinson Cancer Research Center and other institutions around the nation embarked on an expedition to map the living genome, a project called ENCODE (Encyclopedia of DNA Elements). The preliminary results are in.

“The living genome is densely packed with information that appears when the DNA molecule takes the form of chromatin in cells,” says Stamatoyannopoulos. “That form is a kind of living machine — like a microprocessor sitting in every cell. It’s sensing and integrating signals from the cell’s environment and adapting. If we can learn how to read that — how to connect the form of the living genome to its function — it would have game-changing implications for how we diagnose, follow and treat a wide range of different diseases.”

## The illustration

An ENCODE-enabled map of the core regulatory network of four genes (blue).



## The ENCODE project

Researchers have known for years that only about two percent of human DNA — the double helix that contains the instructions that cells use to grow and divide — consists of traditional genes, the instructions that make proteins. ENCODE's purpose was to explore the remaining 98 percent.

Not that this non-gene territory was completely unexplored. In the 1970s, UW Medicine researchers Mark T. Groudine, M.D., Res. '79, Ph.D., UW professor of radiation oncology and executive vice president of the Basic Sciences Division at the Hutchinson Center, and the late Harold Weintraub, M.D., Ph.D., (a founding faculty member of the Basic Sciences Division at the center), had discovered a relationship between the physical structure of DNA — how it is packaged in the cell — and how genes are turned on or off, either to create proteins or to stop creating them.

“The amount of regulatory DNA encoded in the genome is far larger than previously imagined.”

— John Stamatoyannopoulos, M.D.

Subsequent work revealed the existence of “instructions” written in the non-gene regions that were responsible for activating or de-activating genes, a process called gene regulation. Conventional technologies made finding these gene-controlling switches difficult and time-consuming, and relatively few such regions had been uncovered prior to ENCODE.

Using powerful new technologies, ENCODE researchers have now mapped these switches — also called regulatory DNA — that are flipped “on” or “off” in different combinations in hundreds of kinds of cells and tissues. Two things that surprised Stamatoyannopoulos were the sheer number of switches — in the millions — and the degree to which different combinations of switches were used by cells from different parts of the body — the heart, say,

or the liver. “Each kind of cell appears to be so incredibly specialized that most of the regulatory DNA that it uses is different from other cells,” he says. “The amount of regulatory DNA encoded in the genome is far larger than previously imagined.”

## Welcome to the machine

ENCODE's success was boosted by enormous technological advances in gene-sequencing technology. Unlike researchers who use gene sequencing solely to determine the specific DNA letters in a sample, ENCODE project researchers use sequencers to “read out” the results of biochemical reactions that act on DNA in the cell.

As they first began to explore the territory opened by Groudine and Weintraub, Stamatoyannopoulos' group used early gene-sequencing technology, which could produce a few hundred sequences at a time. They then moved to microarray technology, which enabled them to examine more of the genome, but still at relatively low resolution. They re-developed their technology to use massively parallel sequencers, capable of producing hundreds of millions of sequences at a time, that appeared around 2007. “If you graphed our data production, it looks like a hockey stick,” says Stamatoyannopoulos. “It pattered away for a while and then took off tremendously.”

The sheer volume of data allowed an incredibly high-resolution look at gene regulation. When the project began, for example, the researchers could examine what was happening at the level of several hundred base pairs, the chemical bases that form DNA. By 2010, they realized that they could “see” activity all the way down to single base pairs. This advance enabled them to detect more than 8.5 million docking slots for different individual regulatory proteins on the DNA of the living genome; these regulatory proteins recognize specific “words” written in the DNA sequence. Many of the words were compatible with known regulatory proteins, but most had not been seen before.

“We exposed a whole new universe of codes and instructions that the genome is using to control genes,” says Stamatoyannopoulos. And the evaluation system they've built is applicable



for different kinds of cells. In fact, they've now produced detailed descriptions of regulatory protein docking for over 50 cell types, and used these data to understand showing how instructions in regulatory DNA direct gene activity.

"Now we can really see how the machine is working at a level that we couldn't before," says Stamatoyannopoulos.

### Variations in the heart

Epidemiological investigators at the Cardiovascular Health Research Unit (CHRU) are tremendously interested in ENCODE for its potential to inform research into the genetic causes of heart disease. In fact, they participated in the study.

David S. Siscovick, M.D., Res. '79, Fel. '81, UW professor of medicine and epidemiology and the CHRU's co-director, explains that their stock in trade consists of mining data from large studies. One example, CHARGE (Cohorts for Heart and Aging Research in Genetic Epidemiology) brings together data from several large studies involving thousands of people. "CHARGE is a major contributor in identifying genetic associations in large populations," he says. "And ENCODE is going to help us interpret some of the findings from our studies."



Nona Sotoodehnia, M.D., Res. '99, Fel. '02, Fel. '03, worked with the ENCODE group on gene regulation related to cardiac tissue.

ENCODE is already doing just that. Another member of the CHRU, Nona Sotoodehnia, M.D., Res. '99, Fel. '02, Fel. '03, is a cardiologist and the lead for the CHARGE working group on electrocardiograms (ECG). She has a vested interest in learning more about the genetic bases of heart diseases, with a focus on life-threatening heart rhythm problems.

"Why does one person clasp their chest and have sudden cardiac death where another with similar age and demographic factors does not?"

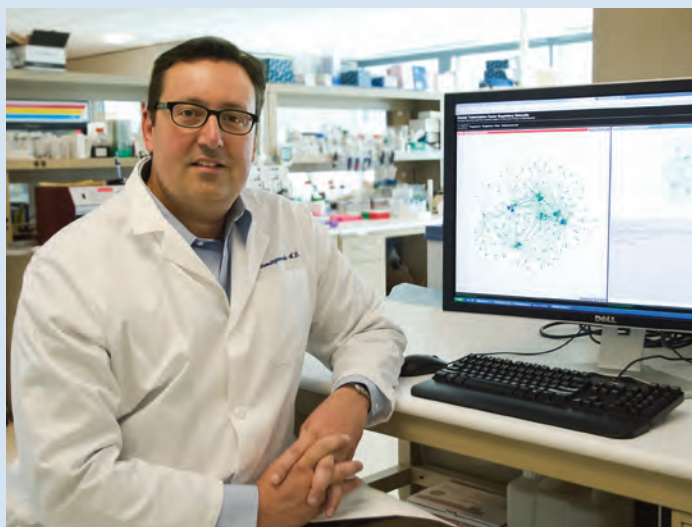


Photo: Clare McLean

John Stamatoyannopoulos, M.D. '95, led the multi-year charge for the ENCODE project at UW Medicine. As gene sequencing technology progressed, more data was produced, allowing for a high-resolution look at gene regulation. "We exposed a whole new universe of codes and instructions," he says.

asks Sotoodehnia, UW associate professor of medicine in the Division of Cardiology. "What puts someone at increased risk of sudden cardiac death? What factors help someone survive?"

In conducting studies of heart disease, she and her CHARGE colleagues found that few of the genetic associations they discovered for the condition were in the coding regions of the DNA. Rather, they fell into the non-gene territories. In cross-referencing her data with those collected by ENCODE researchers, they found that genetic associations with cardiac processes and diseases were concentrated in the regions Stamatoyannopoulos' group identified as important for gene regulation in heart tissue — the regulatory DNA.

"ENCODE is like a roadmap," says Sotoodehnia. "It helps us navigate the vast unknown landscape of non-coding genomic regions."

### The network vs. the gene

With the completion of the Human Genome Project a dozen years ago, hundreds of research projects were initiated to connect specific genes to specific diseases. The result, says Stamatoyannopoulos, was that researchers found thousands of DNA variations associated with

disease. And, as Sotoodehnia's cohort found, only about five percent of the variations were associated with the genes themselves.

As Stamatoyannopoulos puts it, there usually won't be a simple solution to illness: one gene for X disease, or another gene for Y disease. Rather, ENCODE ushers in an era in which many diseases are understood to be the result of complex interactions among regulatory DNA regions and the genes they switch on and off.

Adding to the complexity is proximity, or lack of it. It seems logical to assume that genes would be affected by the regulatory regions closest to them. To examine this assumption, Stamatoyannopoulos' group developed an approach for connecting regulatory regions to the genes they control. Surprisingly, they found that the great majority of genes were far away from their controlling regulatory regions.

**"ENCODE is like a roadmap. It helps us navigate the vast unknown landscape of non-coding genomic regions." — Nona Sotoodehnia, M.D.**

This finding has major implications for piecing together the genetic causes of disease. For example, the group found that many of the genes flagged by genetic studies as connecting a DNA mutation with a specific disease were incorrect. Once the map was straightened out, many findings emerged. For example, researchers realized that 25 percent of all the genetic changes associated with diseases that affect the immune system — conditions like asthma, multiple sclerosis and lupus, for instance — were all affecting the same regulatory systems. One implication: medicine used to treat one condition might be useful in individuals with another condition.

"Most of the signal that seems to be coming out of these genetic studies is pointing to changes in the regulatory DNA rather than changes in the proteins — it's basically how the cell puts all that together," says Stamatoyannopoulos.

## A Study in Complexity

**Each gene can produce several versions of a protein.**

**Each gene also has 10 to 30 regulatory mechanisms that control it.**

**Regulatory DNA contains approximately 8.5 million "docking spots" for proteins.**

"The way we need to start thinking in terms of diseases now is these larger networks."

### Questions and answers

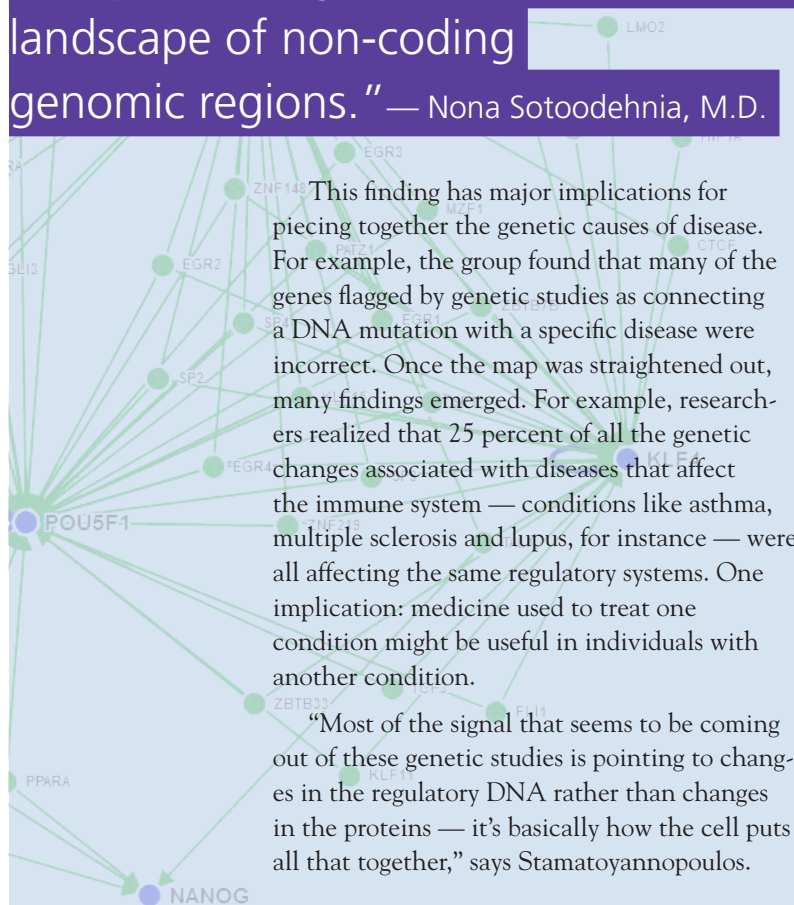
"While ENCODE is an incredibly important scientific advance...it has raised many questions that will need to be addressed before the findings will be ready for translation into clinical care," says Siscovick. It also will take time for scientists to figure out exactly how to incorporate the findings from ENCODE in their research.

Stamatoyannopoulos notes that the process has already begun. With ENCODE data widely available, he says, "you can now pull up vastly more information about [certain] genes than [a single lab] could ever generate in a reasonable amount of time." He notes that the clamor from scientists wanting data on other cell types has begun, too. The brain has barely been investigated. Cancers have a unique-looking regulatory landscape, yet little data on cancers have been produced so far. Important body control systems such as the endocrine system have hardly been explored.

Interesting challenges await, diagnostics and therapeutics are sure to follow, and much more research is on the way. "It's coming," Stamatoyannopoulos says. "And it's going to come at an accelerating pace."

### Note

Researchers around the country participated in ENCODE. If you would like to read more, their findings were published extensively in journals such as *Nature*, *Science* and *Cell*.





# THE OUTSIDER: SERVING INTERIOR ALASKA

**M**att Rogers, PA-C (Yakima Class 11) is a little bit of an outsider — a very welcome outsider — at the Chief Andrew Isaac Health Clinic in Fairbanks, Alaska. He is one of five MEDEX graduates who work at this newly opened clinic, and he's the only one who didn't come from Alaska. Still, the Colorado native loves his adopted state. "Alaska is a wonderful place — the natural beauty is second only to the diverse group of people fortunate enough to call Alaska home," says Rogers.

Rogers is well-acquainted with the interior of Alaska, having worked for the Tanana Chiefs Conference (TCC) for 15 years. The TCC is a nonprofit consortium that offers health, cultural and development resources to tribal members in 42 Alaskan villages, and it operates the Isaac Health Clinic. Rogers, who had served as the rural medical director of healthcare services for more than half of those villages, is now the clinical director of the clinic.

"I'm really excited about it. We now have our own radiology department and lab, and we hired 60 new staff members," says Rogers. In addition to expanding services and personnel, his clinic is the first in the state to offer 3D mammography to its patients — an important milestone, considering that breast cancer is the most common cancer in the region.

"The clinic has enormous potential to vastly improve the health status of people throughout the Alaska interior," says Rogers.

The interior served by the Isaac Health Clinic is large — about the size of Texas — and the demand is high. In 2012, there were 26,630 medical visits to the clinic, previously housed at the local hospital. The interior is also hard to reach. Only 11 out of the 31 villages served by the TCC are accessible by road, so clinic caregivers routinely fly to these areas to see their patients. "Thanks to our additional staffing, we increased our village presence by 30 percent," says Rogers.

Another way the clinic enhances care for tribal members is by training villagers to provide healthcare services — the community aide model. "It's not feasible to place healthcare providers in really tiny villages with only 100 people or so, because there aren't enough resources" says Rogers. Community aides are trained to provide some primary health-care services, such as well-child visits, and prenatal and emergency care.

In fact, Rogers first became interested in the physician assistant profession

as a community health aide. Then he applied to MEDEX Northwest. The same holds true for the other MEDEX graduates on staff at the clinic — Jim Andrulli, PA-C (Seattle Class 17), Cecelia Grant, PA-C (Yakima Class 15), Marilyn Attla, PA-C (Seattle Class 24), and Mathilda Huntington, PA-C (Seattle Class 28) — who were aides before they applied to MEDEX. Then they returned to Alaska to practice.

The Chief Andrew Isaac Health Clinic also serves as a training ground for MEDEX students. It's a popular program — there are one or two students there at any given time. Since the program became available through the University of Alaska in Anchorage, most of the students hail from Alaska. "It's a source of student pride that they're all Alaskan," says Rogers.

Another source of pride, this one claimed by Rogers and his colleagues? "We're successful because we have a team of highly skilled and compassionate, mission-driven professionals," Rogers says. "I am proud to be part of the team and especially lucky to work with past MEDEX graduates and current students."



Matt Rogers, PA-C (Yakima Class 11), the clinical director of Chief Andrew Isaac Health Clinic in Fairbanks, Alaska, is shown here with his family: wife, Alyssa, and children Oliver and Abrahm.

Photo courtesy of Matt Rogers, PA-C

## AIRLIFT NORTHWEST SETS CPR RECORD WHILE SAVING PATIENT

Photo: Rick Dahms



When Brandon Hopper's heart stopped far away from a hospital, his friends — and Airlift Northwest — kept him alive. Also pictured: Ann Kellogg, R.N.

When Brandon Hopper decided to explore the wilderness in Greenwater, Wash., on May 16, 2011, he anticipated finding a herd of elk — he didn't expect his heart to stop. Born with hypertrophic cardiomyopathy, a congenital defect that causes the heart muscle to grow excessively thick, the then 19-year-old Hopper collapsed and stopped breathing. His two companions were quick on their feet. One immediately began CPR; the other ran to get help — they were out of cell phone range.

According to Brenda Nelson, R.N., CEN, chief flight nurse for Airlift Northwest, this early intervention made all the difference. "Brandon received CPR right from the start, so enough oxygen was able to circulate to his heart and brain," she says. "This put us in a good position to perform advanced lifesaving procedures."

Before Airlift Northwest could transport Hopper to a hospital, however, they needed to re-start his heart. This turned out to be a record-setting event, one described as a "conga line"

of first responders and Airlift Northwest crew members who took turns giving Hopper CPR for 86 minutes. Performing chest compressions for that length of time is an arduous endeavor, and there's no guarantee of a positive outcome. Still, providers on the scene persisted. "Hearts like Brandon's are resilient," says Nelson. "No one wants to give up on someone so young. Most likely they saw some rhythms, a glimmer of hope that kept them going."

At Harborview Medical Center, Hopper was implanted with a defibrillator to correct abnormal heart rhythms. He has made a full recovery, and along the way, he and those who rescued him reached a benchmark: with 86 minutes of CPR, his is the second longest successful resuscitation on record.

Not long ago, Hopper had the opportunity to meet Ann Kellogg, R.N., one of the Airlift Northwest critical-care nurses who helped keep him alive. "I owe her my life. I don't know what to say other than thank you," Hopper says.

## HELP FOR DIABETES PATIENTS:

Pricking a fingertip to test levels of blood sugar (also known as glucose) may one day become a thing of the past for patients living with type 1 diabetes. Irl Hirsch, M.D., one of the first people in the United States to wear an insulin pump, is part of a team of scientists, physicians and engineers working together to create an artificial pancreas.

"We've come a long way since that first insulin pump," says Hirsch, UW professor of medicine in the Division of Metabolism, Endocrinology and Nutrition and the Diabetes Treatment and Teaching Endowed Chair. "We now have the ability to measure glucose with continuous monitoring sensors, which are inserted beneath the skin to help identify patterns and fluctuations in real time." It was this innovation, along with the insulin pump, that helped pave the way for the new artificial pancreas. This bionic organ consists of three parts: a glucose sensor, an insulin pump and a controller, which resembles a smart phone. "Using wireless technology, a glucose sensor tells the pump, via the controller, how much insulin to give a patient — forming a closed-loop system," says Hirsch.

Mismanagement of diabetes can have serious, even lethal, side effects, so patients must be vigilant about balancing insulin doses with diet and daily activities. It's a challenge. The artificial pancreas, still in clinical trials, will help patients with type 1 diabetes more effectively monitor their glucose levels 24 hours a day and adjust their insulin as needed.

## THE ARTIFICIAL PANCREAS

Several organizations in Seattle, including UW Medicine, the Benaroya Research Institute, the Pacific Northwest Diabetes Research Institute and the Northwest Chapter of JDRF, are currently working together to make the artificial pancreas a reality for patients. “It’s an excellent example of different groups within the diabetes community collaborating to develop technology that enhances patient outcomes,” says Hirsch.

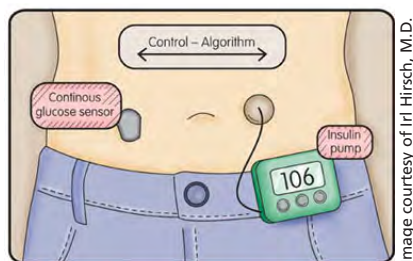


Image courtesy of Irl Hirsch, M.D.

This illustration shows how the controller, pictured here as “Control – Algorithm,” connects the sensor and the insulin pump to form a closed-loop artificial pancreas.

More Top of Mind at  
[uwmedmagazine.org](http://uwmedmagazine.org) »

See how M.D.-Ph.D. student Natalie Miller helps patients combat Merkel cell carcinoma.

## IMPROVING PATIENT CARE, ONE SIMULATION AT A TIME

Here’s the scenario: there’s been a natural disaster. Your patient stops breathing. The code blue team is on their way, but you and a few other medical professionals have to act immediately. What do you do?

Students navigate acute-care simulations like this one — and other simulations that challenge and test their skills — while training in the Institute for Simulation and Interprofessional Studies (ISIS) lab at UW Medicine. Known for its leadership in the use of simulation technology to improve medical skills, ISIS also offers trainings that focus on interprofessional communication and collaboration. Through a new curriculum designed for novice learners, medical, nursing and pharmacy students work together to practice team communication in a variety of hands-on scenarios.

“ISIS provides a safe place for learning. You’re free to make mistakes and experiment,” says Keir Warner, a first-year student at the UW School of Medicine.

This interprofessional environment is a key part of medical education. According to the Joint Commission Center for Transforming Healthcare, miscommunication accounts for 80 percent of medical errors. Training centers like ISIS reduce the potential for miscommunication among professionals, thus improving patient care.

The students at ISIS appreciate the opportunity to train together. Warner, part of a cardiac arrest simulation, says, “Everyone is empowered to speak up. It’s reassuring to know that others will cross-cover for you. For example, the



Photo courtesy of ISIS

Medical student Keir Warner is shown bending over his “patient” in a simulation at the Institute for Simulation and Interprofessional Studies lab.

nursing students will let you know if CPR is being done fast enough.”

Like Warner, Chelsea Howland, a first-year student at the UW School of Nursing, also values ISIS. A participant in an acute-care scenario involving a natural disaster, Howland was one of the nurses in charge of performing CPR on the “patient” and using the automated external defibrillator (AED).

“It was intimidating at first — I was one of the youngest people in the room,” says Howland. “But because it was a natural disaster scenario, everyone was caught off guard. It eliminated any sense of hierarchy between us. We had one common goal: resuscitating the patient.”

Both Warner and Howland think their training will have a positive impact on their work. “Now, I’m much more comfortable with the idea of communicating with everyone on the care team,” says Howland. “Developing these skills is vital to improving patient care in any setting.”

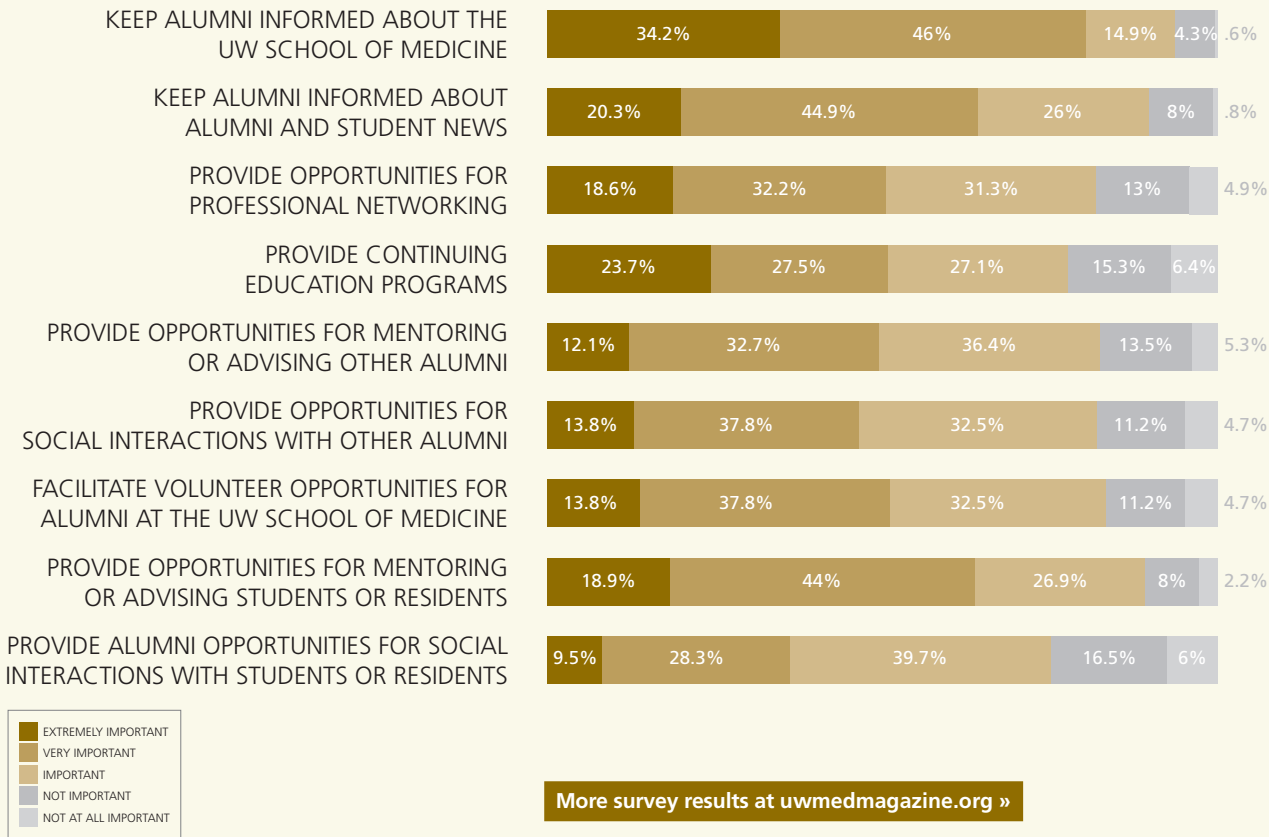


## THE ALUMNI SURVEY: RESULTS AND NEXT STEPS

The UW School of Medicine's Alumni Task Force conducted a survey of alumni in late 2012. Its goal was to better understand what services the alumni association should provide and how alumni want to be engaged with one another and current students.

We received 539 responses and invaluable feedback. The next step? Focus groups to gather more in-depth commentary — then a presentation of the conclusions at the board meeting held on June 1 during reunion weekend. Below is a sample of the initial results; we look forward to sharing more this spring and summer.

*How important is it for the UW School of Medicine Alumni Association to perform these functions?*



## STANDING UP FOR WOMEN AND CHILDREN: SPECIAL WEB FEATURE



What would persuade a radiologist to give up her practice and focus on humanitarian work in Russia? Read more about Juliette Engel, M.D. '74, an alumna who's fighting human trafficking and other social ills in Russia and the U.S. "I came from a model where it was important to be a patient's advocate," says Engel, "so we become the advocates for the children and women we are helping." And in a companion piece, learn about Melissa Smith, M.D. '87, Res. '91, the recipient of the alumni association's 2012 Humanitarian Award and an activist-turned-doctor who is about to publish a health action guide for women and their advocates worldwide.

Alumna Juliette Engel, M.D. '74

See their stories at [uwmedmagazine.org](http://uwmedmagazine.org) »

## OUR STUDENTS: SERVING ON MLK DAY

When is free time really valuable? When it's donated to a great cause! On the Martin Luther King, Jr. holiday on January 21, more than 100 health sciences students, family members and friends turned out for a day of service. The volunteers coordinated art projects with young patients at Seattle Children's and did some deep cleaning at YouthCare's Orion Center, among other projects.

More than 320 "health sciences" hours were donated for the MLK Day of Service, a partnership between the University of Washington's Carlson Leadership and Public Service Center



Tired, dirty and happy, the volunteers at Hammond House Women's Shelter included (L to R): medical students Emanuel Eguia, Mary Eguia, Anna Ohlsson and Kate Arbon; Sarah Rothschild, alumni relations director, standing behind Arbon; Zhi Lin Huang and her mother, Mu Yi Zhang, a School of Social Work student; medical student Dallin Andersen; and two friends of the Eguias: Steven Lashley and Megan Lashley.

and United Way of King County. Anyone can join, and if you're interested in next year's service projects, save

the date of Jan. 20, 2014, and contact Lauren Henricksen at [lhenric@uw.edu](mailto:lhenric@uw.edu) or 206.685.2009 for more information.

## ALUMNA IS CHANGING OUR APPROACH TO OVARIAN CANCER



What if ovarian cancer doesn't actually start in the ovaries? This is the question Elizabeth Swisher, M.D.,

Res. '93, began

to ask while caring for women at high risk for developing the disease. Though her patients had normal cancer screening results prior to receiving preventive surgery for ovarian cancer, Swisher noticed a pattern: many of these women still had early signs of cancer, but in the fallopian tube, rather than the ovary.

"Without a clear understanding of how the disease develops, it's difficult to screen or treat it," says Swisher, a UW professor in the Department of Obstetrics and Gynecology and adjunct professor of medicine in the Division of Medical Genetics. "Research can lead to improved prevention and treatment strategies by providing a window into how cancer develops at earlier stages."

Ovarian cancer is an insidious disease. Its symptoms tend to mirror those of other common conditions, and screenings are ineffective. Most women are not diagnosed until the cancer has spread to other parts of the body, so it's no surprise that ovarian cancer has the highest mortality rate of cancers affecting the female reproductive system.

The goal of Dr. Swisher's research is not only to understand where ovarian cancer starts — in the fallopian tubes for some women — but also how one kind of tumor differs from another. Recently, she discovered that 25 percent of ovarian carcinomas have genetic roots — previously, researchers thought only 10 percent of ovarian cancers were family linked.

Swisher's discoveries prompted the Department of Defense and the Ovarian Cancer Research Foundation to award her three grants, totaling \$2.6 million, to research genetic alterations in ovarian carcinomas. "Though each type of genetic alteration is rare, together they explain a large fraction of ovarian cancer. Understanding each one will help us personalize therapy and improve cure rates," says Swisher.

## YOUR REUNION! A NOTE FROM ANGELA

The UW School of Medicine 2013 Reunion Weekend is just a few weeks away — and I can promise you that it will be a wonderful time! Our staff is crafting a memorable program, including tours of UW Medicine's new research facility at South Lake Union and a presentation (part of the "Wellbody Academy") by Pacific Science Center for alumni with young children.

Then there's my favorite event from last year's reunion — an evening atop the city at the Space Needle. I hope you make plans to join us on Friday, May 31, and Saturday, June 1. Visit [uwmedalumni.org/reunion-weekend](http://uwmedalumni.org/reunion-weekend) for more information and to register. I look forward to seeing you!

Angela J. Chien, M.D. '95

PRESIDENT, UW MEDICINE ALUMNI ASSOCIATION

## THE HONOR ROLL: THANKS, ALUMNI AND FRIENDS!

Every year, dozens of alumni and other friends step forward to make students' lives better. This year, the alumni association is recognizing them online in a special honor roll. Included are the people who have opened their homes to students through Student-Alumni Information Days and the Help Our Students Travel program, also known as SAID and HOST.

If you would like to join this illustrious group of volunteers — either by inviting students to have a chat about careers (SAID) or giving them a free place to stay during residency interviews (HOST) — please contact UW Medicine Alumni Relations at [medalumni@uw.edu](mailto:medalumni@uw.edu), 206.685.1875 or toll free 1.866.633.2586.

See the honor roll at [uwmedmagazine.org](http://uwmedmagazine.org) »

## MEDEX GRADUATES RECOGNIZED FOR EXCELLENCE

MEDEX Northwest and the Washington Academy of Physician Assistants (WAPA) held their annual Alumni Award Reception in the Seattle area in January. MEDEX faculty presented awards to the distinguished alumni listed below — many congratulations on this recognition.

### Lifetime Achievement Award

MEDEX Seattle faculty member Lois Thetford, PA-C (Seattle Class 14)

### Humanitarian Service Award

F. J. (Gino) Gianola, PA-C (Seattle Class 8)

### Outstanding Preceptor Award

Corey Hatfield, PA-C (Seattle Class 34)

### Excellence in Teaching Award

MEDEX Spokane site faculty member  
T. J. Byrne, M.A., PA-C



Photo courtesy of MEDEX Northwest

The reception also included another round of awards (see photo). Ruth Ballweg, MPA, PA-C (Seattle Class 11) and MEDEX Northwest section chief, awarded the Future of MEDEX Award to six outstanding graduates. From left to right: Stephanie Rubright, MCHS, PA-C (Spokane Class 14), Ahna Patterson, MCHS, PA-C (Spokane Class 14), Christine Mikhael, MCHS, PA-C (Seattle Class 44), Stephanie Rubright's mother, who became a mother to the entire group, Ruth Ballweg, Wendy Monteon, MCHS, PA-C (Seattle Class 44), Karla Rugamas, MCHS, PA-C (Spokane Class 14) and Maurice (Tony) Adkins, MCHS, PA-C (Spokane Class 14).



M.D. Alumni

New job, award, move or family addition? A volunteer or service learning experience you'd like to share? Send us a quick note; simply visit [uwmedmagazine.org](http://uwmedmagazine.org), click on the "ClassNotes" button, and let us know how and what you're doing. And take a minute to improve our residency records — use the "ClassNotes" function to confirm your specialty, location and year.

The ClassNotes below were received through January 2013; any received afterward will appear in the next issue.

Prefer mail to the web? We'd love to hear from you: UW Medicine Alumni Relations, Box 358045, Seattle, WA 98195-8045.

## 1953

The Class of 1953 celebrates its 60th reunion at the **2013 Reunion Weekend, May 31–June 1, 2013**. Please mark your calendar.

**Edmund W. Gray, M.D. '53**, writes, "After a long and fruitful career, I retired from medicine in November 2012. The leadership years with the Washington State Medical Association, highlighted by my presidential years ('85–'86), were especially gratifying. Now Jane and I will enjoy our family."

## 1956

**Lloyd P. Johnson, M.D. '56**, writes, "Marianne and I lived in Bethlehem for six weeks this summer collecting stories of Palestinians and Jewish people. We had such a good time — we almost didn't come back. They asked us to tell their stories to Americans because we don't usually get to hear them. Hence the blog: [lloydjohnson.org](http://lloydjohnson.org). I am pursuing a new career, writing fiction. My first book, *Living Stones*, will be published this year — helps keep Alzheimer's away. Have a good 2013, and I hope to see some of you at the reunion in June."

## 1958

The Class of 1958 celebrates its 55th reunion at the **2013 Reunion Weekend, May 31–June 1, 2013**. Please mark your calendar.

## 1960

**Melvin I. Freeman, M.D. '60, FACS**, UW emeritus clinical professor in the Department of Ophthalmology, received the Accreditation Council for Continuing Medical Education's 2012 Rutledge W. Howard, M.D. Award for Individual Service to the Intrastate Accreditation System. Among his many achievements, Dr. Freeman was the physician leader in the development of the CME Networking in the Northwest Conferences and in the development of the Washington State Networking Group. These programs provide education and networking for regional CME providers.

**Sigurd J. Normann, M.D. '60, Ph.D.**, professor emeritus at the University of Florida's Department of Pathology, has received one of the highest honors a volunteer can receive from the American Cancer Society (ACS) — the 2012 National Volunteer Leadership Award, presented last November. In his citation, the ACS praised Normann for remarkable service in many capacities, including service as a member of the Peer Reviewers

Advisory Group, the Colorectal Cancer Operations Committee, the Research Evaluation Advisory Group and the Research and Medical Affairs Committee. In addition, Normann has received two awards from the University of Florida: the College of Medicine Lifetime Achievement Award in 2004 and the University of Florida Distinguished Faculty Award in 2006.

## 1961

**Michael K. Reedy, M.D. '61, Res. '63**, writes, "My lab at Duke University managed to get National Institutes of Health support for 2012–2017 for both R01 grants we had applied for. In today's hard times, and at my age, I'm both proud and humbled by that vote of confidence from my peer reviewers. I'll turn 83 in the summer of 2017, and I plan to retire in the next year or so after that."

## 1963

The Class of 1963 celebrates its 50th reunion at the **2013 Reunion Weekend, May 31–June 1, 2013**. Please mark your calendar.

## 1964

**John H. Davis, M.D. '64**, writes, "Having a good life in Los Altos, Calif. Still upright, playing golf and tennis, gardening and traveling."

## 1968

The Class of 1968 celebrates its 45th reunion at the **2013 Reunion Weekend, May 31–June 1, 2013**. Please mark your calendar.

## 1971

**Kenneth M. Settel, M.D. '71**, just authored a book with Joseph Cardillo, Ph.D., on leadership practices: *CEO Psychology: Who Rises, Who Falls, and Why*. Settel is a clinical instructor in psychiatry at Harvard Medical School, where he teaches a course on organizational consultation to senior residents.

## 1973

The Class of 1973 celebrates its 40th reunion at the **2013 Reunion Weekend, May 31–June 1, 2013**. Please mark your calendar.

## 1978

The Class of 1978 celebrates its 35th reunion at the **2013 Reunion Weekend, May 31–June 1, 2013**. Please mark your calendar.

## 1982

**Craig E. Rubens, M.D. '82, Ph.D., Res. '84** (pediatrics), UW affiliate professor in the Department of Pediatrics, has been named chair of the Interscience Conference on Antimicrobial Agents and Chemotherapy (ICAAC), marking the first time a pediatric infectious diseases specialist has been appointed to the position. ICAAC is the world's premier meeting on infectious diseases and antimicrobial agents, organized by the American Society for Microbiology. Rubens is co-founder and executive director of the Global Alliance to Prevent Prematurity and Stillbirth (GAPPS), an initiative at Seattle Children's.

**Glen R. Stream, M.D. '82, Res. '85** (pediatrics), MBI, FAAFP, a family physician in Spokane, Wash., became the chair of the board of the American Academy of Family Physicians in October 2012. Stream has worked in the Pacific Northwest for more than 25 years. He joined the Rockwood Clinic in Spokane in 1991. Now the clinic's chief medical information officer, Stream also has served as a board member, chief privacy officer and medical director of clinical information services.

## The Physician, the Scientist: Charles C. Greene, M.D. '95, Ph.D. '95

It's a long way from Compton, Calif., to Jacksonville, Fla. — the span of an entire continent — but the road travelled from a rough inner-city neighborhood to a thriving otolaryngology practice is just as long. That's the road travelled by Charles C. Greene, M.D. '95, Ph.D. '95. "My early background shaped my strong commitment of service to others," says Greene. "It also prepared me emotionally and intellectually for the many academic and professional challenges I have encountered in building a career I thoroughly enjoy."

Greene was always a high achiever: in high school, at the University of California, Irvine, and in the Medical Scientist Training Program at the UW School of Medicine, where he earned an M.D. and a Ph.D. under the tutelage of the late Wayne E. Crill, M.D. '61, then the chair of the Department of Physiology and Biophysics.

"My scientific training has helped me to practice evidence-based medicine, to function as a thought leader within the specialty of otolaryngology, and to embrace and teach innovative surgical techniques," Greene says. "And on the clinical side, I know that I do my very best to meet the emotional and physical needs of every person that comes under my care."



Photo courtesy of Charles C. Greene, M.D., Ph.D.

## 1983

The Class of 1983 celebrates its 30th reunion at the **2013 Reunion Weekend, May 31–June 1, 2013**. Please mark your calendar.

**Brian K. Ross, M.D. '83, Res. '87** (anesthesiology), UW professor in the Department of Anesthesiology and Pain Medicine, was awarded the 2011 Bruce C. Gilliland Award for Excellence in Teaching of Residents and Fellows.

## 1988

The Class of 1988 celebrates its 25th reunion at the **2013 Reunion Weekend, May 31–June 1, 2013**. Please mark your calendar.

## 1993

The Class of 1993 celebrates its 20th reunion at the **2013 Reunion Weekend, May 31–June 1, 2013**. Please mark your calendar.



**1995**

**John A. Stamatoyannopoulos, M.D. '95**, UW associate professor in the Department of Genome Sciences, is a senior author on seven papers related to further exploration of the genome, a project called ENCODE. Stamatoyannopoulos is also among the new fellows of the American Association for the Advancement of Science; its members are recognized for meritorious efforts to advance science or its applications. See this issue's feature on ENCODE on page 11.

**1996**

**Julie Boxwell Kelley, M.D. '96**, became chief of staff and emergency room medical director at Red Bud Regional Hospital in Red Bud, Ill.

**1997**

Harborview Medical Center's Code Sepsis Team, led by **David J. Carlbom, M.D. '97**, was awarded the Washington State Qualis Innovation in Healthcare award for their acute-care sepsis screening project.

**Ann M. Eacker, M.D. '97, Res. '01** (internal medicine), UW associate professor of medicine in the Division of General Internal Medicine, has been appointed associate dean for student affairs in the UW School of Medicine. Eacker is medical director of the General Internal Medicine Center at UW Medical Center-Roosevelt, where she practices and oversees medical student teaching.

**1998**

The Class of 1998 celebrates its 15th reunion at the **2013 Reunion Weekend, May 31–June 1, 2013**. Please mark your calendar.

**2002**

**William G. Weppner, M.D. '02, Res. '05, '06**, (internal medicine), UW acting assistant professor of medicine, has received the 2012 Richard M. Tucker Excellence in Teaching Award for his enthusiasm and dedication. Weppner is on faculty with the UW-sponsored Boise Internal Medicine Residency program, and he is the co-director of clinical outcomes at the Boise VAMC Center of Excellence in Primary Care Education.

**2003**

The Class of 2003 celebrates its 10th reunion at the **2013 Reunion Weekend, May 31–June 1, 2013**. Please mark your calendar.

**2004**

**Benjamin J. Staudinger, M.D. '04, Res. '07, '08**, (internal medicine), was named the first recipient of the Charlie Moore Award, a donor-initiated award that recognizes outstanding trainees working in the area of cystic fibrosis.

### **Becoming the Patient: Nora Nagaruk, M.D. '02**

Nora Nagaruk realized early on that life was unpredictable and the body, fragile. The first lesson: a broken hip when she was 14 and growing up in Unalakleet, Alaska. Fifteen years later, the lesson was more forcible. At 29, she learned she had leukemia, the disease that had claimed her father.

Acute leukemia put an end to her training — treatment conflicted with the rigors of residency — but it inspired her. “Losing my dad to leukemia at a young age and learning that cancer is the leading cause of death in Alaska Natives, I’ve always wanted to make an impact in the realm of cancer as a physician in rural Alaska,” Nagaruk says. She returned to her home state to work as a general practitioner and community health aide instructor.

Health complications leave Nagaruk contemplating her professional future, but she says that the experience of being a patient has changed her view of healthcare. “It’s taught me to take a few moments to consider the patient perspective and ask myself, ‘is that order really necessary? Is there a simpler regimen?’” Today, with her leukemia in remission for eight years, Nagaruk’s gratitude for being alive is profound. “I learned that we take so much of our body’s amazing abilities and function for granted,” she says. “I appreciate the life-giving power and strength of a red blood cell so much more!”



Photo courtesy of Nora Nagaruk, M.D.

## 2006

With approval from the Kitsap and Pierce County Commissioners, **Nathan R. Schlicher, M.D. '06, J.D., FACP**, has been appointed to serve as a Washington state senator in 2013, filling the mid-term seat formerly held by Derek Kilmer.

## 2007

**Yuri A. Maricich, M.D. '07**, was named a finalist in the Center for Innovative Technology's 2012 GAP 50 Entrepreneur Awards, which honors Virginia's next generation of innovators.

## 2008

The Class of 2008 celebrates its 5th reunion at the **2013 Reunion Weekend, May 31–June 1, 2013**. Please mark your calendar.

### A Postcard From Kenya: Andrew P. Seaman, M.D. '09

"There is nothing quite like teaching medicine in Kenya," writes Andrew P. Seaman, M.D. '09.

"Over three rotations, I have had the pleasure of learning and teaching at Moi Teaching and Referral Hospital in Eldoret, Kenya — twice as a resident and once as faculty. While there, I've worked with some of the brightest, most intellectually hungry students I have yet encountered.

"As I see it, the core difference between learning medicine in North America and in Kenya boils down to one word: feedback. My fellow graduates and I groan at the cost of our medical education and the six-figure loan balances. The true price of our education, though, is in the millions. How many imaging studies did I order while in medical school or residency? How many echocardiograms, how many labs?

"Our attendings and our teachers were also trained in this environment, and what we learn from it is skepticism — we learn, repeatedly, that some of our initial hypotheses about a patient's diagnosis are incorrect. In Kenya, Ecuador and other places I have worked outside the U.S., in settings with far fewer resources, this is often not the case. You're often required to develop a hypothesis and then stick with it, with little direct data. This process can be improved, and I hope to come back to East Africa on a more full-time basis next year to take part in developing global health education as a field in its own right."

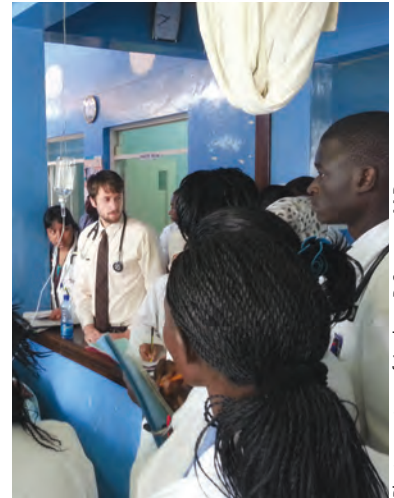


Photo courtesy of Andrew P. Seaman, M.D.



### Resident, Fellow and Ph.D. Alumni

New job, award, move or family addition? A volunteer or service learning experience you'd like to share? Send us a quick note; simply visit [uwmedmagazine.org](http://uwmedmagazine.org), click on the "ClassNotes" button, and let us know how and what you're doing. And take a minute to improve our residency records — use the "ClassNotes" function to confirm your specialty, location and year.

The ClassNotes below were received through January 2013; any received afterward will appear in the next issue.

Prefer mail to the web? We'd love to hear from you: UW Medicine Alumni Relations, Box 358045, Seattle, WA 98195-8045.

### Division of Allergies and Infectious Diseases

**Benjamin A. Lipsky, M.D., Res. '76** (internal medicine), **Fel. '78** (infectious diseases), **Int. '73** (family medicine), writes, "After 37 years on the faculty at UW Medicine, I transitioned to emeritus professor status and a new life in Oxford, U.K. I am now the deputy director of the University of Oxford medical school's graduate entry course, an abbreviated training program for students who already have an undergraduate science degree. I am also a teaching associate at the University of Oxford's Green Templeton College (to which most medical students belong). Further, I am working 25-percent time as an invited professor of medicine for the Department of Medical Specialties (Division of Infectious Diseases) to help them set up a bone and joint infection research unit. I continue to collaborate with various clinical research projects and am a member of the U.K.'s Independent Scientific Advisory Committee, which reviews applications for grants requesting access to the massive U.K. general practice database. And I am enjoying the beauty of Olde England and many trips to the continent."

### Division of Cardiology

**Fredric M. Tobis, M.D., Fel. '80**, the chair of Washington state's 8th District Healthcare Advisory Committee recently published *The Healthcare Crisis: the Urgent Need for Physician Leadership*. The book discusses healthcare costs, the healthcare system and the deep-rooted issues that affect them.

### Department of Family Medicine

**Thomas E. Norris, M.D., Fel. '89**, received the prestigious F. Marian Bishop Leadership Award from the Society of Teachers of Family Medicine Foundation, presented to honor individuals who have made a sustained, long-term commitment to the specialty in academic settings.

### Department of Medicine

**J. Randall Curtis, M.D., Res. '91, MPH**, UW professor of medicine, has been named the A. Bruce Montgomery, M.D.-American Lung Association Endowed Chair in Pulmonary and Critical Care Medicine.

**Joshua P. Thaler, M.D., Res. '05, Ph.D.**, UW assistant professor in the Division of Metabolism, Endocrinology and Nutrition, received the Perkins Coie Award for Discovery, an annual award supporting the generation of research data.

### Department of Microbiology

**Howard Young, Ph.D. '74**, has seen his career come full circle; one of his postdoctoral fellows at the National Cancer Institute is now an assistant professor in UW Medicine's Department of Immunology and Infectious Diseases. Savan Ram, Ph.D., began work in January 2012.

### Department of Neurological Surgery

**Anthony Avellino, M.D., Res. '00**, UW professor in the Department of Neurological Surgery, with Thomas Lendvay, UW associate professor in the Department of Urology, Seattle

Children's, were part of the first surgical team in the U.S. to perform an innovative procedure to help restore feeling in the penis of patients with spina bifida. In addition, Avellino ran a 50-mile ultramarathon to support the Matthew Metcalf Memorial Scholarship Fund at Life Christian Academy in Tacoma, Wash., last October. Matthew was one of Avellino's patients.

### Department of Psychiatry and Behavioral Sciences

**John Liebert M.D., Res. '69**, is the author of a new book, *Wounded Minds*, expected to be released in July 2013. It's a case-based study of combat trauma that explores the needs of combat veterans, and it advocates for enhanced processing of psychiatric disability through better military healthcare and fitness-for-duty examinations.

### Division of Pulmonary and Critical Care

**David K. Madtes, M.D., Res. '98**, recently assumed the position of section head at Fred Hutchinson Cancer Research Center. He is the director of the Seattle Cancer Care Alliance's Lung Cancer Early Detection and Prevention Clinic.

### Department of Rehabilitation Medicine

**Margaret C. Hammond, M.D., Res. '82**, received a 2012 Distinguished Member Award from the American Academy of Physical Medicine and Rehabilitation.

**Peter C. Esselman, M.D., Res. '87, '90** (physical medicine and rehabilitation), chair of UW Medicine's Department of Rehabilitation Medicine, is one of the 2012 recipients of the Distinguished Clinician Award given by the American Academy of Physical Medicine and Rehabilitation. The award honors individual physiatrists who have achieved distinction in teaching and patient care.

### B.S. and M.S. Alumni

New job, award, move or family addition? A volunteer or service learning experience you'd like to share? Send us a quick note; simply visit [uwmedmagazine.org](http://uwmedmagazine.org), click on the "ClassNotes" button, and let us know how and what you're doing. The ClassNotes below were received through January 2013; any received afterward will appear in the next issue.

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**Merlina Tate, B.S. '61** (physical therapy), writes this tribute to her classmates in the Class of 1961. "We were the second class to graduate in physical therapy from the University of Washington. Originally, there were eight of us, but Bonnie passed away within a few years of graduation. The remaining seven have kept a round-robin going for 51 years, and we meet every five years, spending two to three days together catching up. For the last five years, we've had a reunion every year, our thought being that none of us knows how much time we have left to enjoy each other. Our class includes Judy Alden in St. Augustine, Fla., Judy Corcoran in Ukiah, Calif., Arlene Harris in Silverton, Ore., Ingri Johnson on Whidbey Island, Wash., Karen Martin on Fox Island, Wash., Bonnie Tisler in Anchorage, Alaska, and me in Wilbur, Wash. Six out of the seven of us practiced physical therapy until we retired."

### MEDEX Northwest Alumni

New job, award, move or family addition? A volunteer or service learning experience you'd like to share? Send us a quick note; simply visit [uwmedmagazine.org](http://uwmedmagazine.org), click on the "ClassNotes" button, and let us know how and what you're doing. The ClassNotes below were received through January 2013; any received afterward will appear in the next issue.

Prefer mail to the web? We'd love to hear from you: MEDEX Northwest, 4311 11th Ave. NE, Seattle, WA 98105.

### Anchorage

**Jeffrey Stubblefield, PA-C (Anchorage Class 2)**, writes, "I am currently working at the Alaska Native Tribal Health Consortium in the neurosurgery department. I am responsible for patients in the clinic and the CCU, and I treat inpatients and take call. I also started teaching at the MEDEX site in Anchorage as well as serving as a preceptor. One of the more interesting points about working in the neurosurgery department is the number of aneurysms we find in this small population — the department is trying to establish whether there is a genetic link to the aneurysms. Another interesting yet difficult aspect of my position is dealing with distance. We triage patients over the phone, and then it can take up to eight hours for the patient to get to the hospital, if the weather allows them to leave at all. The best thing about Alaska, though, is the outdoors. You can do anything and everything in this great state."

### Seattle

**Glenn Knight, PA-C (Seattle Part-time Class 2)**, retired in January 2013 after working in family practice from 1994–1999 and in general surgery from 1999–2012 in Edmonds, Wash. Knight began his medical career as a helicopter flight medic in Vietnam, later becoming a surgical technologist and surgical assistant. His experiences inspired him to help write legislation requiring the licensure of surgical assistants in Washington. After traveling to Nepal, Honduras and Tanzania as a medical missionary, Knight became a pro-tem board member of the Washington State Medical Quality Assurance Commission and also served on the American Academy of Physician Assistants Professional Practice Council. In addition to being active in local organizations, Knight mentored MEDEX applicants and students. In 1994, he was the recipient of the Spirit of MEDEX Award for displaying a good sense of humor despite adversity, being a role model for the profession and serving as an ambassador for the program. Many MEDEX students attended his humorous class, titled "How to Look Like a Complete Idiot in Surgery." Knight's plans for retirement include taking urban hikes with his old English bulldog, traveling, enjoying his six grandchildren and not carrying a pager in his pocket for the first time since 1969.

**Robert M. Hutchinson, PA-C (Seattle Part-time Class 6)**, writes, "Tammy and I are living in Anacortes — just doing our thing. It's hard to believe that it's been 15 years since I graduated. I have spent most of my career in orthopaedics. Currently, a fellow PA and I are partners in a company that provides surgical assistance and conducts pre-op histories and physicals."

**Scott Cooper, PA-C (Seattle Class 11)**, writes, "My goal throughout my training at MEDEX was to be able to provide medical care to those who would otherwise have no access to quality care. I can now say that I am able to do just that! I am working in central Oklahoma at an Indian health facility (Indian Health Services or IHS). The population is truly indigent. A vast majority of my patients have no other alternatives for healthcare other than the clinic. I can say that this is one of the best jobs I have had — both in terms of work environment and patient population. Our clinic has a standard of quality care in the IHS circuit that other local IHS clinics are striving to emulate. As an added bonus, I have just received a loan repayment award from the National Health Service Corp. as part of their federal loan repayment program! This will allow me to continue working in a place that I enjoy, as well as provide greater financial freedom, as it will pay nearly all of my student loans from MEDEX!"

**Steve Gage, PA-C (Seattle Class 12)**, writes, "In October 1979, I took a position as the only medical provider for the community of Pelican, a southeast Alaska fishing village with a population of about 250. As the only employee at this community-owned clinic, I was on call 24/7 and my duties included housekeeping, routine maintenance and anything else that needed to be done. Shortly after I started my practice, Alaska began licensing PAs, and I was issued license No. 22. In 1990, after working in Pelican for more than 10 years, I accepted a position in Sitka with the Southeast Alaska Regional Health Consortium (SEARHC) as an instructor in a community health aide training facility. My duties as an instructor were interrupted for a few years when I assisted in a project involving MEDEX and SEARHC to train physician assistants in Sitka. One class of 12 students completed training before the project ended. While at SEARHC, I was appointed director of the community health aide program and served as the assistant medical director for SEARHC's community health clinics and programs. In January 2012, I retired and, for now at least, my wife and I call Sitka home."

**Clark Adams, PA-C (Seattle Class 19)**, writes, "I am still living in Connecticut with Shirley, my bride of 39 years; our sons, Clark II and Christopher, left the nest many years ago. Two bright lights in my life are Emily Ann and Abigail Mae Adams, my granddaughters. My hair is thinner, but my waist isn't, and the knees and the back are stiffer since receiving my MEDEX diploma almost 26 years ago. I spent 20 years working in academic hospitals in emergency medicine, inpatient internal medicine and surgical specialties in Connecticut before discovering my niche as a locum PA in rural Alaska clinics. While practicing in Connecticut, I precepted PA students from many programs, finding that, in general, due to limited pre-PA school healthcare experience, they were not as prepared as MEDEX PA students during clinical rotations. In the past four years, I've traveled to the far reaches of Alaska, providing the full spectrum of care to all age groups under routine and emergent conditions. I am awed and humbled by the faith the people of these villages place in my skills, knowledge and decisions. The role PAs play in these underserved and remote villages cannot be understated, and it is the perfect practice setting in which our profession can excel."

**Pat Hensch, PA-C (Seattle Class 19)**, writes, "Hi, all — just a few words to let you know that old MEDEX grads never give up! I remember at our graduation in 1987, we said, 'You'll hear from us in the future!' Well, I worked as a bush PA for 20 years in Bethel, Alaska, and then spent 10 years traveling to Alaskan villages doing sports physicals. In the Yukon-Kuskokwim Delta area, I taught certified health aide practitioners, and I was also the first female chief medical officer at the correctional center there. For the past four years (since its inception), I have been the clinical coordinator for the Alaska MEDEX program. We just picked Class 5! My job isn't easy, but I must say: it is the most gratifying position I've ever had. I love our students, and they continually impress and amaze me. I would love to hear from old classmates and friends at [phensch@uw.edu](mailto:phensch@uw.edu)!"

**Daniel Thomas, PA-C (Seattle Class 25)**, writes, "Recently, I was delighted to hear that my MEDEX classmate **Al Shear, PA-C (Seattle Class 25)**, is working as a trainer at the Yukon Kuskokwim Community Health Aide Training Center in Bethel, a regional hub in southwest Alaska. It was great to hear Al's voice and remember the good times attending MEDEX in Seattle 20 years ago. For the past 16 years, I have been working at the Norton Sound Health Corporation Health Aide Training Center in Nome, Bethel's counterpart a few hundred miles north. Two of the four health aide training centers in Alaska are located in Bethel and Nome, and the other two are in Anchorage and Sitka. Health aides are village residents, usually Alaska Natives, who, with 15 weeks or less of training, provide primary care for patients in their village. Health aides may provide prenatal care, conduct well-child visits or handle medical emergencies. This is the only program of its type in the United States, and it has come about primarily because most of the villages here are accessible only by airplane, boat or snowmobile. I have chosen this as my career because I love to teach, and health aides are exceptional people — it's rewarding to work with them. The Nome hospital has a steady stream of MEDEX students in rotations, usually for several months each. I led the way back in 1992 when I returned to Nome for my family practice rotation. I urge our MEDEX students to spend a week in one of our village clinics to get a taste of real bush medicine. If you are interested in this type of work, feel free to contact me or one of the other training centers; I'd be happy to tell you more about it. We could use the help. You can learn more about the health aide program at the website [www.AKCHAP.org](http://www.AKCHAP.org)."

**Sarah Berger, PA-C (Seattle Class 40)**, writes, "I have been in family medicine for three years as a contractor at Nellis Air Force Base. I've met a great community of providers, and we are on the cusp of opening a clinic for underserved patients in Las Vegas. Next, I'm heading to Haiti for a medical mission with the same group of providers. I honestly never thought I would end up in, much less enjoy, family medicine — but I really find it rewarding."



**Hope Salvador, PA-C (Seattle Class 40)**, writes, "I continue to work full time at the Anchorage Neighborhood Health Center, where I have started a program to treat patients with hepatitis C. I have also been traveling a lot, spending time in Mexico and Ireland over the past three months. My next trip is to Tanzania and Uganda, where I will hike Kilimanjaro and go on safari."

## Spokane



Photo courtesy of Jami Hoke, PA-C

**Jami Hoke, PA-C (Spokane Class 11)**, writes, "I got married in June 2011 (my former name was Benzel). I also relocated to Salem, Ore., in November 2011 to accept a job in family practice. I work at a small clinic that consists of two M.D.s, two PAs and two FNP's. The company I work for provides a Medicaid-like insurance to the financially challenged, so a good portion of our patient population consists of patients with that insurance. I love my job and couldn't imagine ever leaving family practice or this particular position."

## Yakima

**Penny Puhak, PA-C (Yakima Class 11)**, writes, "I just started my seventh year of practice in Kodiak, Alaska. After spending my first six years working for the North Pacific Medical Center, a small private practice, I accepted a position with the Kodiak Area Native Association (KANA). I love working in the KANA clinic. Everyone here is just awesome, and everything is state-of-the-art. For fun in Kodiak, we take a lot of walks on the beach and go hiking, boating and, of course, fishing. I raise chickens and ducks, and I'm also learning to be a Kodiak gardener, which means trying to grow more than big, fat slugs. I'm also getting ready for the busy summer tourist season. Hopefully, a couple of my MEDEX classmates will visit Kodiak for the first time this summer."

**Severine Basham, PA-C (Yakima Class 12)**, writes, "In March 2011, I began working at the Marianas Medical Center, a family clinic in Saipan. Part of the Commonwealth of the Northern Mariana Islands (a U.S. territory), Saipan is a beautiful treasure in the middle of the Pacific Ocean, not far from Guam. The weather is a constant temperature, and the water is beautiful. We see a mix of patients in the medical center — many seeking prenatal care. A number of our patients also speak a different language, such as Chinese, Korean, Russian, Tagalog, Japanese, Chamorro or Carolinian. Though we have staff interpreters, providing care can sometimes be difficult due to the language barrier."

**Janette Yingling, PA-C (Yakima Class 15)**, writes, "Since graduation more than two years ago, life has been a whirlwind of experiences and activities. Originally, I envisioned exploring a new area of healthcare other than emergency medicine, where I previously worked as both an EMT and flight medic over a span of 25 years. Instead, I discovered that I was doing what I loved all along. Currently, I work in the ER at Fairbanks Memorial Hospital. I also enjoy opportunities to mentor firefighters and paramedic students in clinical medicine. To satisfy my primary-care interests, I work part-time in family medicine at Bassett Army Community Hospital and the Clear Air Force Station Clinic. My husband is a veteran, so I am honored to be able to support our military community. In the near future, my plans include travel to Thailand to support Partners Relief & Development in providing healthcare to displaced ethnic minorities and refugees from war-torn Burma. In my free time, I enjoy hiking, camping, canoeing, fishing and hunting with my family. We try to make every moment of the short, yet beautiful, Alaska summers count. I am currently training for the 40th Mayor's Half-marathon in Anchorage this June, and when I'm not working or exploring the outdoors, you can find my nose in a good book!"

## PASSAGES: OUR FRIENDS, REMEMBERED

Below we pay tribute to recently deceased alumni, faculty, students and friends. Because we are not always aware of deaths in the larger UW Medicine community, especially those that take place outside of Seattle, we rely on alumni, faculty and friends to notify us and send us obituaries. Our sincere condolences to those who have lost loved ones.

### STUDENT

**Elizabeth G. (Liza) Benson**

*Died Jan. 27, 2013, in Jackson, Wyo.*

Ms. Benson was a promising, compassionate student in the MEDEX Northwest program. Please see her obituary on page 30.

### ALUMNI

**Robert Clayton Bell, M.D. '50**

*Died Sept. 24, 2012*

Dr. Bell served in two wars, and he had a passion for medicine as well as for people.

**John Elliot Nixon, M.D. '55**

*Died Nov. 11, 2012, in Anacortes, Wash.*

Dr. Nixon was an accomplished musician as well as a family and emergency physician.

**Mary F. Bridge, M.D. '56, Res. '61**

*Died Oct. 1, 2012*

Dr. Bridge was one of the first female graduates of the School.

**Warren R. Fullington, M.D. '56**

*Died Dec. 10, 2012, in Olympia, Wash.*

Dr. Fullington practiced ob-gyn in south Seattle.

**Thomas James Huchala, Sr., M.D. '56**

*Died Sept. 23, 2012, in Shoreline, Wash.*

Dr. Huchala was a decorated veteran who practiced family medicine.

**Stanley Dale Harmon, M.D. '57**

*Died Sept. 7, 2012, in Depot Bay, Ore.*

Dr. Harmon was an orthopaedist with extensive military service.

**Harry Nelson Beaty, M.D. '58, Res. '63**

*Died Dec. 8, 2012, in Scottsdale, Ariz.*

Dr. Beaty served as the dean of the medical school at Northwestern University in Chicago. Please see his obituary on page 30.

**Richard W. Roberts, M.D. '58**

*Died Feb. 10, 2013, in Seattle, Wash.*

Dr. Roberts, a psychiatrist, was devoted to his veteran patients.

**Robert H. (Bob) Colfelt, M.D. '59**

*Died Feb. 1, 2013, in Seattle, Wash.*

Dr. Colfelt was an author as well as a neurologist.

**Arden E. Evanger, M.D. '60, Res. '65**

*Died Aug. 22, 2012, in Missoula, Mont.*

Dr. Evanger was a pathologist — with a post-retirement hobby as a “gold rush” docent.

**George M. Hall, M.D. '60, Res. '69**

*Died Jan. 30, 2013, in Poulsbo, Wash.*

Dr. Hall was a dedicated otolaryngologist who spent part of his retirement as a volunteer.

**John R. Davies, M.D., Res. '61**

*Died Nov. 13, 2012, in Wenatchee, Wash.*

Dr. Davies was a psychiatrist who served in the Air Force during the Korean War.

**Theodore Hubert Rudd, M.D. '63**

*Died Nov. 16, 2012, in Yakima, Wash.*

Dr. Rudd, specializing in family medicine and ob-gyn, was active in his community.

**Harry Monroe Weitlauf, M.D. '63**

*Died Oct. 11, 2012, in Lubbock, Texas*

Dr. Weitlauf was the chair of cell biology and biochemistry at Texas Tech University Health Sciences Center for more than 30 years.

**Michael John Murphy, M.D. '67**

*Died June 25, 2012, in Yakima, Wash.*

Dr. Murphy believed in community service, and he was a stalwart supporter of the Boy Scouts.

**M. Alan Permutt, M.D., Res. '67, Fel. '69**

*Died June 11, 2012, in Clayton, Miss.*

Dr. Permutt was a renowned figure in diabetes research.

**Gregory Max Engel, M.D. '74, Res. '79**

*Died Dec. 6, 2012, in Seattle, Wash.*

Dr. Engel was an orthopaedist, a sportsman and a devoted Seattle sports fan. See his obituary on page 30.

**Joyce Kiyoko Kikuchi, B.S. '77**

*Died Nov. 22, 2012*

Ms. Kikuchi was a medical technologist with a graduate degree in business.

**Karla M. Espinosa, M.D. '84**

*Died Dec. 18, 2012, in Lynnwood, Wash.*

Dr. Espinosa was a family medicine physician.

**Kalynne Harris, M.D. '07**

*Died Nov. 5, 2012, in Nampa, Idaho*

Dr. Harris was a dermatologist who believed strongly in public service.

### FACULTY

**Robert Goodkin, M.D.**

*Died Oct. 15, 2012*

Dr. Goodkin, a neurosurgeon, was a superb teacher and highly regarded by his colleagues.

**Warren G. Guntheroth, M.D.**

*Died Sept. 17, 2012*

Dr. Guntheroth was a nationally known cardiologist who made a breakthrough in SIDS. See his obituary on page 30.

**Maureen McGrath Henderson, M.D.**

*Died Dec. 4, 2012, in Tynemouth, England*

Dr. Henderson was a world-famous epidemiologist and expert on cancer prevention. See her obituary on page 31.

**John A. Maxwell, M.D.**

*Died Nov. 18, 2012, in Seattle, Wash.*

Dr. Maxwell, a neurosurgeon, did research on lung and fluid balance related to head injuries.

**J. Donald Ostrow, M.D.**

*Born Jan. 1, 1930, in New York City*

*Died Jan. 10, 2013, in Seattle, Wash.*

Dr. Ostrow was a gastroenterologist whose research interests focused on the toxicity and transport of bilirubin.

**E. Donnell Thomas, M.D.**

*Died Oct. 20, 2012*

Dr. Thomas won a Nobel Prize for his work in bone marrow transplantation. See his obituary on page 31.

Full obituaries at [uwmedmagazine.org](http://uwmedmagazine.org) »

## STUDENT

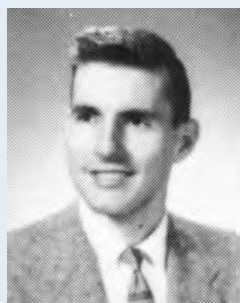
### ELIZABETH G. (LIZA) BENSON

*Born June 28, 1984, in Troy, Ohio*

*Died Jan. 27, 2013, in Jackson, Wyo.*

Elizabeth G. (Liza) Benson completed an undergraduate degree in biology at Colby College in Maine before she moved to Jackson, Wyo., and began working as a medical assistant at Teton Orthopedics. In 2011, she was accepted into the physician assistant training program at MEDEX Northwest, and she was completing a residency at Pinedale Medical Clinic. Benson died unexpectedly after she was caught in an avalanche during a back-country skiing trip. Admired for her adventurous spirit, sharp intellect and compassion for others, she is survived by her mother, Elizabeth, siblings Adrienne and Peter, and her boyfriend, Jason Ray.

## ALUMNI



### HARRY NELSON BEATY, M.D. '58, RES. '63

(INTERNAL MEDICINE)

*Born 1932*

*Died Dec. 8, 2012, in Scottsdale, Ariz.*

Harry Nelson Beaty, M.D. '58, Res. '63, put himself through college and medical school at the University of Washington. He served for three

years in the U.S. Navy before returning to the UW for a residency in internal medicine with a specialty in infectious diseases. Dr. Beaty joined the faculty, becoming a professor of medicine, and in 1995, he received the University of Washington School of Medicine Distinguished Alumni Award. Dr. Beaty was a leading researcher in bacterial meningitis and Legionnaires' disease, served as the chair of the department of medicine at the University of Vermont, then ended his career as the dean of the medical school at Northwestern University in Chicago. He was a born educator and a person of high integrity, teaching the values of hard work, education, service to others, and seeing the world through other people's eyes. Dr. Beaty is survived by his wife, Georgia, his children, Chris Beaty and Kara Neary, and six grandchildren.



### GREGORY MAX ENGEL, M.D. '74, RES. '79 (ORTHOPAEDICS)

*Born April 20, 1948, in Seattle, Wash.*

*Died Dec. 6, 2012, in Seattle, Wash.*

Gregory Max Engel, M.D. '74, Res. '79, loved baseball; he was a star pitcher at Rainier Beach High School. He continued his studies at the University of Washington, majoring in zoology and oceanography, where his ambidexterity helped him become a collegiate handball champion. After college, Dr. Engel attended the UW School of Medicine, graduating with honors. In 1979, he started a private practice, Bellevue Bone and Joint Physicians, where he developed his passion for healing patients. He continued practicing in Bellevue for 35 years, and he served as chief of staff at Overlake Hospital from 2009–2010.

Dr. Engel loved to ski (both water and snow), hiked throughout the Cascades, reached the top of every volcanic peak in the Pacific Northwest, and rode his bike around Mt. Rainier and from Seattle to Portland. His travel adventures included fly-fishing in remote Alaska, going on safari in Africa, skiing every resort in the western United States, and scuba diving in Fiji, Belize and the Great Barrier Reef. Engel loved his hometown and avidly attended Seattle sporting events with his friends and son. He is survived by his children, Gregory "Max" Engel, Jr., and Madeline Engel.

## FACULTY

### WARREN G. GUNTHEROTH, M.D.

*Died Sept. 17, 2012*

Warren G. Guntheroth, M.D., UW professor in the Department of Pediatrics and nationally known cardiologist, was 85 at the time of his death. Dr. Guntheroth joined the faculty at the UW School of Medicine in 1957. During his career, he made many contributions to the field of congenital cardiac disease and sudden infant death syndrome (SIDS). Dr. Guntheroth and emeritus faculty member Philip Spiers, M.D., were co-authors of a seminal study on SIDS, published in the April 2001 edition of *Pediatrics*. They found that infants who became overheated from too many covers or other heat sources and who slept on their stomachs were at greater risk of the syndrome. Their work led to a national "back to sleep" campaign that urged parents to place their infants on their backs. The campaign resulted in a 50-percent decrease in SIDS cases per year. Dr. Guntheroth is survived by his wife, Sally, and three sons.



## FACULTY

**MAUREEN MCGRATH HENDERSON, M.D.**

*Died Dec. 4, 2012, in Tynemouth, England*

Maureen McGrath Henderson, M.D., was a world-famous epidemiologist and expert on cancer prevention. She died at the age of 86. After earning degrees in medicine and public health at the University of Durham, she emigrated to the United States in 1960 and held faculty positions at the University of Maryland and Johns Hopkins University. Dr. Henderson became a professor of epidemiology and medicine and associate vice president for health affairs at the University of Washington in 1975. She also founded the Cancer Prevention Research Program at Fred Hutchinson Research Center and served as its director for 11 years. Dr. Henderson co-directed two major cancer prevention trials, including the Women's Health Initiative, and was active on many federal advisory panels. Among many honors, in 1997 she was awarded the Order of the British Empire, presented to her by Her Majesty Queen Elizabeth in a ceremony at Buckingham Palace. Henderson retired in 1998. She is survived by two brothers, Michael and Kevin.

**E. DONNALL THOMAS, M.D.**

*Died Oct. 20, 2012*

E. Donnall Thomas, M.D., an emeritus faculty member at the University of Washington School of Medicine and member of Fred Hutchinson Cancer Research Center, died at the age of 92. Thanks to Dr. Thomas, thousands of people

have recovered from advanced leukemia, aplastic anemia and other blood cancers and diseases and have gone on to live full, productive lives.

Dr. Thomas' interest in leukemia and bone marrow began during his medical training at Harvard Medical School. He received an M.D. in 1946, and, after completing an internship, a hematology fellowship and duty in the Army, he returned to Boston to complete residency training and pursue research. Dr. Thomas then became physician-in-chief at Mary Imogene Bassett Hospital in Cooperstown, N.Y. There, he began bone marrow transplantation experimentation with dogs, looking to replace diseased marrow with healthy marrow from a donor as a possible cure for leukemia.

Through continued experimentation, Dr. Thomas found that matching donors to patients was critical to successful transplantation.

The University of Washington School of Medicine was fortunate that Dr. Thomas accepted an offer to move to Seattle in 1963. Here, he developed a system for matching the tissue types of dogs and showed that irradiated dogs that received marrow from matched donors had good long-term survival. In 1969, he began transplanting the marrow of matched siblings in patients with advanced leukemia. Over time, Dr. Thomas began working with patients with less advanced leukemia, and in 1979, he reported cures among half the leukemia patients given transplants during chemotherapy-induced remission. Bone marrow transplants now cure 70 to 80 percent of the healthiest children and teenagers with leukemia. Thousands of lives have been saved as a direct result of his work.

Dr. Thomas became a member of the National Academy of Sciences in 1982, and he received the National Medal of Science in 1990 — the same year that he, along with Joseph E. Murray, M.D., received the Nobel Prize in Physiology or Medicine.

In addition to his outstanding scientific career, Dr. Thomas served as head of UW Medicine's Division of Oncology from 1963–1985. He also served as director of medical oncology at Fred Hutchinson Cancer Research Center from 1974–1989 and as associate director of the center's clinical research programs for seven years. Dr. Thomas is survived by his wife, Dottie, who worked alongside him throughout his career, by two sons, E. Donnall, Jr., and Jeffrey, and by his daughter, Elaine Thomas.



## Social Justice for Her Community: Third-year Student Everlyn Perez

Everlyn Perez, a third-year student at the UW School of Medicine, had an epiphany one day while sitting in her “Introduction to Clinical Medicine” class.

“I looked up at my instructor, Dr. Maestas, who is a Latina woman like me, and I saw myself,” says Perez. “I thought, ‘Wow — I can’t believe I’ve made it this far! And, one day I’ll be up there teaching, just like her.’”

Perez was first inspired to pursue a career in medicine while earning an undergraduate degree at the University of California, Davis. Exposure to other cultures opened her eyes to the health-care disparities affecting the Latino population. “We disproportionally suffer from diseases like hypertension and obesity, and there’s also a lack of Latina physicians,” says Perez. “I began to ask myself how I could help achieve social justice for my community. That’s when I became interested in medicine.”

Her passion for social justice helped Perez secure the **Paul W. Skinner Endowed Scholarship**, which supports students who are interested

Everlyn Perez is enjoying her time at the UW School of Medicine, which provides rich learning opportunities in multiple locations across five states. That’s one of the reasons she chose to come to Seattle. “The UW offered me the chance to study in places outside of Washington,” says Perez. The photo: Perez, on winter break, in São Paulo, Brazil.

in working with medically underserved communities. “Scholarships are what made medical school a reality for me,” she says. “It eases the pressure to realize I won’t have a huge financial burden when I graduate.”

As for her career, Perez is considering primary care, which was one of the reasons she chose to attend the UW School of Medicine. “Our primary-care program is one of the best in the country,” she says. She also was attracted to the variety of learning opportunities available for third- and fourth-year students through the School’s five-state WWAMI program, which offers educational programs not only in Washington, but also in Wyoming, Alaska, Montana and Idaho.

Being a third-year medical student doesn’t leave Perez much free time, but when she is able to finagle a few minutes to herself, she enjoys catching up with her family in Los Angeles and dancing to Latin-American music like banda, cumbia and merengue. Right now, however, she spends most of her days at Harborview Medical Center in an internal medicine clerkship, and she is grateful for the experience.

“So far it has been surprisingly rewarding yet extremely challenging,” Perez says. She and her colleagues are learning how to perform physical exams, talk to patients and make diagnoses. “The hours are long, and we don’t know a lot yet. But it sparks something inside of me to be able to care for sick people.”

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