UNIVERSITY OF WASHINGTON SCHOOL OF MEDICINE
2015 REPORT TO THE
WASHINGTON STATE MEDICAL ASSOCIATION

We very much appreciate this annual opportunity to provide information about the University of Washington School of Medicine (UWSOM) activities and initiatives to the members of the Washington State Medical Association (WSMA). We could not do our work without WSMA’s ongoing involvement and support. You are essential partners in working with us to achieve our common goal of improving the health of all people in Washington and beyond.

2015 State Legislative Recap

On January 12 the Washington State Legislature began the 2015 Legislative Session with the primary duty of passing new state operating and capital budgets for the 2015-2017 biennium. Legislators passed those budgets with just hours to spare before the July 1 deadline, barely avoiding a state government shutdown. The Legislature then kept going—into triple overtime—in order to suspend Initiative 1351 and the $2 billion deficit it created in the operating budget as well as pass needed funding measures on a state capital budget and transportation proposals. Finally on July 10, after an unprecedented number of days in session, the 2015 session came to a close.

In the midst of this marathon legislative session, Washington State’s legislators addressed a broad range of healthcare-related issues. Almost 25 percent more bills were introduced in the healthcare policy arena than in the previous year. Proposals ranged from reforming the mental health system to advancing telemedicine to severely restricting hospital related affiliations.

Among the many competing legislative priorities this session, the possible loss of funding to sustain the UWSOM in Spokane quickly became the paramount legislative priority for UW Medicine. While significant effort was devoted to securing funding for UWSOM in Spokane, UW Medicine played an important role in a number of significant policy debates. The following provides a summary of UW Medicine’s legislative efforts in the 2015 session.

Policy bills supported by UW Medicine that passed during the 2015 session included:

- SB 5175: Requiring insurance reimbursement for acts of telemedicine.
- HB 1437: Requiring participation in a state all-payer claims database by commercial insurers.
- HB 1402: Allowing hospitals to have clinic-based pharmacies licensed under their umbrella hospital pharmacy license rather than apply and pay for individual clinic pharmacy licenses.
- SB 5557: Requiring reimbursement to pharmacists for services within a pharmacist’s scope of practice.
- SB 5593: Setting standards for inmate guarding in emergency departments and reimbursement for medical services.
- SB 5649: Creating outpatient mental health treatment and giving flexibility to Involuntary Treatment Act (ITA) professionals in the initial detention deadlines.
Policy bills opposed by UW Medicine that were not passed but are expected to be reintroduced in the 2016 legislative session include:

- HB 1732/HB 1733: Nurse Staffing/Meal and Rest Breaks Mandate.
- HB 1067: Reauthorizing the Medicaid Fraud False Claims Act including the *qui tam* provision allowing whistleblower reports of alleged fraud.
- HB 1173: Prohibiting the use of non-competition clauses in physician contracts.
- HB 1186: Requiring Observation Status notification to patients transitioning from inpatient status to observation status for the purposes of cost impact.
- HB 1504: Creating a standardized Charity Care Application for all hospitals.
- HB 1870: Prohibiting the issuance of certificates of need in order to prohibit new hospital affiliations.
- SB 5453: Increasing the scope of services of “Extended Stay Recovery Centers.”

Budget requests supported by UW Medicine in the 2015 state operating budget:

- **UW School of Medicine in Spokane:** With the dissolution of UW’s medical education partnership with Washington State University (WSU) and the passage of HB 1559 lifting the prohibition on WSU to pursue an independent medical school, the focus shifted to the House and Senate proposed budgets for continued funding for the UWSOM in Spokane. Maintaining UWSOM’s medical education efforts in Spokane was crucial, as up to one-third of the Washington medical student cohort attends first-year basic sciences classes in Spokane. In the end, the agreed-upon operating budget provided $9 million to UWSOM, which is sufficient funding to continue operations in Spokane.

- **Graduate medical education funding:** The Family Medicine Residency Network (FMRN) sought, and UW Medicine strongly supported, $16 million in new funding over the next biennium to backfill lost state funding for the existing 17 family medicine residency programs in Washington State; align osteopathic residency programs with the Accreditation Council for Graduate Medical Education’s (ACGME) Single GME Accreditation System that will open the programs to all allopathic and osteopathic medical school graduates; and establish new residency programs in prospective sites across the state. After extensive discussions about the importance of expanding primary care residencies in Washington State, the agreed-upon operating budget allocates a total of $16 million in new funding for the FMRN. A total of $8 million of funding comes from the renewed Hospital Safety Net Assessment, with the restrictions that it can only be spent on new hospital-based residency programs. Another $8 million is provided from the state general funds without restrictions on its use in supporting the FMRN.

- **Creation of a new training program in Integrated Care Psychiatry:** The final budget provides $4 million in biennial funding to support training of residents, fellows, and practicing psychiatrists in the area of integrated behavioral health care. Trainees in this new program will receive didactic and hands-on training in psychiatric consultation to primary care providers and other health care providers in settings throughout the state that have little access to psychiatry. These may include primary care clinics, school-based health centers, and other health care programs. The long-term goal of this program is to improve access to psychiatric consultation and services in underserved areas throughout the State of Washington.

- **Refunding of the Health Professionals Loan Repayment & Scholarship Program:** The Legislature restored and supplemented previously eliminated funding, resulting in $9.37 million in available support for qualifying healthcare professionals, including professionals pursuing a
primary care practice in health professional critical shortage areas and nurse practitioners or psychiatrists who go to work for state hospitals.

- **Maintenance of funding for the Western and Eastern Washington Area Health Education Centers (AHEC)** in the Department of Health budget: A proposed cut of $808,000 in funding for our state’s AHEC programs would have seriously hampered the AHECs’ abilities to improve workforce development, health professions education, continuing education for health professionals and community assessment and development of health systems in underserved areas. The final budget restored the funding, ensuring continued contributions from our AHECs.

**UW Medicine’s policy priorities and preparation for the 2016 legislative session:**

The outlook for the 2016 legislative session will be colored largely by the final operating budget agreement reached in the 2015 session. Legislators once believed they would face a $2 billion dollar budget deficit. As the 2015 session progressed, the state received burgeoning economic forecasts with increased tax revenue. House-proposed tax increases as high as $1.5 billion, which were once thought to be necessary, dissipated when faced with resistance from the Senate. However, the Legislature continues to face uncertainty concerning how the courts will receive proposed increases in court-mandated funding in K-12 education and mental health funding. After a lengthy and challenging budget fight in 2015, legislators will be skeptical of new funding proposals in a 2016 short legislative session. They will primarily focus on revenue-neutral policy proposals.

Against this backdrop, UW Medicine will continue to advocate for funding to support both undergraduate and graduate medical education efforts, with an emphasis on educating primary care providers dedicated to practicing in Washington’s rural and underserved areas. We will continue to support efforts to protect primary care providers from increasing pressures to pay for expanding insurance coverage and will advocate for the ability of providers to forge partnerships that offer better, more coordinated care for patients at reduced cost. UW Medicine’s advocacy priorities for 2016 were set with these concerns in mind. Those priorities include:

- **Continue expansion of undergraduate medical education capacity in Eastern Washington:** Continue to seek funding to expand UWSOM in Spokane, including forming a new higher education partnership which will increase capacity and services for our medical students and improve care for underserved communities.

- **Primary care:** Support WSMA efforts to increase funding for primary care by extending the Medicaid Primary Care Incentive payment program.

- **Telemedicine:** Support expansion of the newly established reimbursement mandate for an expanded scope of telemedicine services, including addressing inter-state acts of telemedicine licensing issues and site requirements for reimbursement.

- **Mental health:** Continue to support additional funding to eliminate inappropriate mental health boarding of complex mental health patients in general hospital beds and increase funding to support the expansion of dedicated inpatient mental health beds and services.

- **Workforce development:** Continue to support efforts to address workforce shortages by increasing funding for professional training programs, including the Family Medicine Residency programs. Support further funding for an expanded health professional loan repayment program.
• **Ensure hospital providers flexibility to form partnerships:** Oppose any attempt through rule-making or legislation to expand certificate of need rules to limit delivery systems’ flexibility to form partnerships to improve care and reduce cost.

• **Staffing mandates:** Oppose mandates that undermine hospital nurse-staffing committees and that do not consider patient need while encouraging the Department of Health to increase enforcement of current work rules and health care employee protections.

• **Hospital outpatient services:** Oppose site-neutral payment policies that fail to recognize the higher costs incurred in hospital-based practices. Provide input to the Health Care Authority (HCA) report to the Legislature, which is due in October.

I would like to thank all members of the WSMA leadership and the WSMA lobby team for outstanding support of medical education and patient care during the long and challenging 2015 legislative session. We invite your input and greatly value your support of our objectives for the upcoming 2016 Legislative session. We would also appreciate having the opportunity to learn further about WSMA objectives and discuss how we can best partner to achieve our mutual interests.

**UW School of Medicine Status**

The UWSOM remains financially solid. Research productivity remains high and UW Medicine hospitals and clinics continue their work to serve patients and provide vital support for UWSOM’s education programs.

*U.S. News & World Report* again ranked the UWSOM as the nation’s top primary care school for 2016. The UWSOM was also ranked No. 1 in rural health and family medicine. The school has held No. 1 rankings in each of these three areas for over two decades. Several of the school’s other programs were among the top 10 nationally: AIDS (No. 4), pediatrics (No. 8), geriatrics (No. 8), internal medicine (No. 8) and drug and alcohol abuse (No. 10). The school was again No. 2 in the nation in grant funding received from the National Institutes of Health (NIH) among all medical schools in the nation and No. 1 among all public medical schools.

**Administrative changes**

• **Suzanne Allen,** who served for five years as vice dean for regional affairs, assumed the new position of vice dean for academic, rural and regional affairs, effective February 1. In that capacity, she leads both academic affairs and regional programs and operations, working to ensure seamless integration of WWAMI programs in all settings.

• In January, **Jennifer Best,** associate professor of medicine in the Division of General Internal Medicine and associate program director for resident professional development and well-being in the UW internal medicine residency program, assumed the position of associate dean for graduate medical education. She succeeds Byron Joyner, who assumed the position of vice dean for GME and designated institutional official (DIO) in June 2014. Dr. Best has been the recipient of several teaching awards and continues on as associate program director for the residency.
• **Terry Scott** was appointed the new section head and program director of the MEDEX Northwest Physician Assistant Program and assistant professor of family medicine. He graduated from MEDEX in 1993 and joined the MEDEX faculty in 1996. He has been serving MEDEX as program director and senior lecturer since 2011.

• **Sara Kim**, research professor of surgery, was appointed to the new position of associate dean for educational quality improvement for the undergraduate program. In that capacity, she works closely with Suzanne Allen, Michael Ryan, associate dean for curriculum, and others to ensure that the UWSOM is continuously improving its curriculum and meeting and surpassing all accreditation standards.

• **Mark Whipple**, associate professor of otolaryngology-head and neck surgery, was appointed assistant dean for curriculum for the undergraduate medical education program. He is a graduate of the UWSOM, a founding member of the Colleges and until he accepted this new position, served as a College Head. He is working closely with Michael Ryan on the new curriculum, in particular on the Patient Care Phase and Explore and Focus Phase.

• **Ian Goodhew** became director of government relations in September 2014. In that role, he works on a broad array of public policy and legislative issues. Previously he served as deputy chief of staff in the King County Prosecuting Attorney’s Office. Goodhew succeeds Jackie Der, who died earlier this year (see Passages section, page 23).

**Changes among department chairs**

• **Judith Wasserheit** became the new chair of the Department of Global Health effective Sept. 1, 2014. She is the second chair since the department was founded in 2007. A long-time leader in research on sexually transmitted diseases, including HIV, she succeeds King Holmes, the first holder of the William H. Foege Chair of the Department of Global Health.

• **Cecilia Giachelli**, who served as acting chair of the Department of Bioengineering since fall 2013, was appointed chair on Feb 1, 2015. She is internationally recognized for her work in the area of vascular calcification leading to the development of molecular and cellular therapies for chronic kidney disease and atherosclerosis. She succeeds Paul Yager, who stepped down as chair.

• **Denise Dudzinski**, who served as acting chair of the Department of Bioethics and Humanities after Wylie Burke stepped down, was appointed chair on March 1, 2015. She is chief of the Ethics Consultation Service and associate chair of the Ethics Advisory Committee at UW Medical Center. Her research includes ethical issues in transplantation, destination therapy and end-of-life care, methods and practices in ethics consultation, and other areas.

**Medical student update**

**Incoming 2015 class:** The incoming 2015 medical school class is expanding by five students above the 2014 number as a result of funding from the Idaho State Legislature for these new positions. A total of 245 first-year positions are being filled for fall 2015.
The Washington component of the entering 2015 medical school class had 905 applicants, of whom 123 are matriculating. The ratio of Washington applicants to admissions is 7.36 to 1. Overall, 8,090 applications were received for the 245 first-year positions for fall 2015. Among all entering students, 55 percent are women. The average age in the new class is 24 and the average GPA is 3.68.

**Medical students in residency match:** Our medical students had a superb match for residency positions. A record number and percentage of UWSOM students matched into primary care specialties—60 percent. This is an increase of 4 percent from last year. Our success in primary care is a result of special programs like WRITE, RUOP and TRUST that prepare students for and in primary care settings, especially for underserved populations. It also reflects our targeted recruitment and admissions criteria as well as our long-standing community-based orientation, which places all of our students in a substantial number of community clinics and hospitals throughout the state and region. The UWSOM was the first medical school in the nation to initiate community-based training. That commitment has grown and strengthened over the past decades.

A total of 34 students (15 percent of all students) matched into family medicine. The number and percentage of UW students matching into internal medicine increased this year to 64 (30 percent), with 17 of these matching into primary care internal medicine. Students matching into pediatrics remained the same as last year—28 students (13 percent of matches). Several students matched into combined programs (internal medicine/pediatrics, internal medicine/preventive medicine, internal medicine/emergency medicine).

**WWAMI matches:** Nearly 40 percent of our students are entering residency training programs in the WWAMI region: 71 graduates are completing residency training in Washington, 7 in Idaho, 1 in Alaska, 3 in Montana and 1 in Wyoming. A total of 55 UWSOM students matched to UW programs in Seattle, 8 to programs in Spokane, and 8 to other Washington residency locations.

**Thank you, WSMA:** Many WSMA members serve as teachers for our students in your practice settings. You selflessly give your time to support and mentor the next generation of physicians, helping to create a robust pipeline of physicians for the future. Many of you also support us in other ways, including policy support and participation in and support of our many educational programs and initiatives. You make our programs possible and contribute to our outstanding national reputation. Thank you to every member of WSMA!

**Graduate medical education (GME) update**

**UW residency and fellowship training programs:** UWSOM served as the sponsoring institution of 100 residency and fellowship programs accredited by the ACGME, three Board-approved fellowship programs, and over 90 non-accredited clinical fellowship programs. Nearly 1,000 residents and over 300 fellows participate in these programs each year. Internal medicine is the school’s largest residency program, with 177 filled positions in the 2014-2015 academic year, followed by pediatrics (112), anesthesiology (110), psychiatry (66), general surgery (54), diagnostic radiology (49), emergency medicine (41) and orthopedic surgery (39). The institution received approval for accreditation of one new fellowship program starting July 1, 2015 in pediatric transplant hepatology.

The WWAMI Family Medicine Residency Network (FMRN), overseen by the UWSOM, consists of 24 family medicine residency programs across the WWAMI region, including 17 in Washington. The Network trains about 513 family medicine residents; many remain in the WWAMI region to practice after completion of training.
UW Medical Center, Harborview Medical Center, Seattle Children’s Hospital, and VA Puget Sound Health Care System are the primary training sites in Seattle for our residents and fellows, with some training also offered at Valley Medical Center and Northwest Hospital & Medical Center. The School of Medicine also maintains close affiliations with over 200 community-based training sites in Seattle and the surrounding area, as well as with many inpatient and outpatient settings for a growing number of specialties throughout the WWAMI region.

The UWSOM partners with multiple hospitals throughout the region to provide exemplary training experiences across a range of diverse settings and patient populations. Expanding training opportunities and building new GME programs throughout the region are critical to meeting the healthcare needs of the region. With a high correlation between site of residency training and later site of practice, providing training opportunities in communities with physician shortages is one of the best ways to recruit physicians to the area. Without additional residency positions and programs, expansion of medical school opportunities will have a limited long-term impact on the region’s workforce.

**GME accreditation:** All UWSOM residency and fellowship training programs are fully accredited. The ACGME recently developed a new model of accreditation oversight called the Next Accreditation System, or NAS. With the implementation of the NAS, the ACGME now monitors key program performance metrics on an annual basis. Programs are also required to report on individual trainee performance on educational Milestones on a semi-annual basis. The ACGME has also implemented Clinical Learning Environment Review (CLER) visits, in which ACGME field staff observes residents and fellows in the hospital and meets with key hospital and GME leaders, faculty and trainees to assess six key performance quality and patient safety metrics in the clinical learning environment. UW Medical Center was the fifth and largest hospital in the nation to participate in the alpha phase of CLER, and we expect another CLER visit at the hospital soon.

As the sponsoring institution, UW Medicine holds Continued Accreditation status. This very favorable status reflects the strong leadership, oversight, and administration of residency and fellowship education at the School of Medicine, primary training sites in Seattle, and training sites throughout the WWAMI region.

**Residency match:** Our residency programs did extremely well in filling positions in the national match—in fact, better than the national average. Ninety-five percent (255/263) of available UW resident positions were filled in the initial NRMP Match and seven of the remaining positions were filled with excellent candidates immediately afterwards during the Supplemental Offer and Acceptance Program (SOAP). All residency positions in other matches (e.g., American Urological Association (AUA) Match, Ophthalmology Residency Match) were filled. Ninety-one percent of our positions were filled with U.S. medical school seniors.

Thank you to all WSMA members involved in residency and fellowship training.

**Educational initiatives and milestones in undergraduate medical education**

- **The 2015 WWAMI Curriculum launches:** In August, after nearly five years of preparation and planning involving hundreds of faculty, staff and students, we begin our new curriculum—titled the 2015 WWAMI Curriculum. The name is a direct reflection and result of the partnership of faculty, staff and students across the five WWAMI states involved in planning and building the new curriculum.

  Starting with the entering class of 2015, all students will spend their first 18 months at their respective regional university (with the exception of Wyoming for year one—those students
will come to Seattle for their third term early in their second year while space is prepared for future classes). Students will complete a very exciting and innovative curriculum called the Foundations curriculum.

Integrated basic science blocks: In the past, students took many different quarter- or semester-long courses at the same time. The new curriculum features dedicated courses for short periods of time. During their first 18 months, students will complete seven integrated blocks (see attached schematic of the four-year curriculum). An example of a blocked course is Invaders and Defenders, a 6-week block offered in the fall and covering the immune system, microbial biology, infectious diseases, inflammation and repair, and skin-connective tissue. Several topics will be integrated into all of the blocks, including pathology/histology, pharmacology, and combined anatomy and radiology (renamed Human Form and Function). In addition, topics and cases that cover themes identified as essential for our students to learn will be integrated into the blocks, including professionalism and ethics, diversity, health equity, quality and safety, communication, interprofessional practice, and other themes critical to becoming an excellent health care provider.

Active learning approach: Classroom teaching will be considerably different than in the past. Instead of attending predominantly lectures that run most of the day, students will have a maximum of 4 hours of class time each day, of which a maximum of one hour will be lecture. Students will be expected to prepare ahead of time and come to class ready for active, case-based discussions with their teachers and peers. Our goal is to prepare students for the rapidly changing world of medicine in which physicians and other health professionals must be lifelong learners, actively seeking new knowledge as it becomes available.

Foundations of Clinical Medicine: Our curriculum has long been known for its focus on, and excellence in, clinical training, both for preclinical and more advanced students. In particular, the Colleges program that started 15 years ago has provided dedicated time with a faculty mentor and small group of students learning and practicing clinical skills at the bedside during students’ preclinical education. The Colleges will continue in the new curriculum, with students participating in a half-day session every other week. However, in the new curriculum, students’ clinical training will expand further.

In addition to the College half-day every other week, one day per week will be devoted to clinical skills training through a combination of time in a community clinic setting and university-based clinical skills training.

To prepare students to be useful and comfortable in clinical settings starting on day one, they will receive introductory clinical skills training during a two-week Immersion prior to the start of classes. Other topics to be covered include succeeding in medical school, professionalism and ethics, patient-centered care and other important topics to help them prepare them for an active role in the practice of medicine.

After Immersion and the start of classes on Sept. 8, students will spend alternate Wednesdays in their Primary Care Practicum (PCP). This longitudinal clinical exposure to a clinic and primary care physician over 15 months will train medical students in the primary care practices of family medicine, internal medicine and pediatrics. Students will spend up to a full day, every other week, in a consistent clinic and with a physician or group of physicians.

If you are a primary care physician interested in working with a medical student as part of the Primary Care Practicum, please contact Jeanne Cawse-Lucas (cawse@uw.edu).
On alternate Wednesdays, students will have a half-day of additional clinical skills training from faculty at their WWAMI university site, similar to what has been offered in the past in Introduction to Clinical Medicine.

Integration of basic science and clinical medicine: One aspect of the expanded clinical training we are very excited about is a more thoughtful integration of classroom lessons with skills learned in clinical training. As much as possible, the clinical curriculum will match and expand on what students are learning in the classroom, such as seeing patients with cardiac, pulmonary and nephrology conditions when they are taking the Cardiopulmonary Renal block.

An abiding tenet of the new curriculum is continuous curriculum improvement—monitoring and improving the curriculum on an ongoing basis. We are very excited about the 2015 WWAMI Curriculum. We look forward to bringing you updates over the coming years. If you have questions about the 2015 WWAMI Curriculum, please feel free to contact Michael Ryan, associate dean for curriculum, at mjryan@uw.edu.

- **UWSOM Spokane**: The UWSOM continues its longstanding work to further refine and build our outstanding WWAMI medical education program in Spokane. The pilot program offering the second year of medical school in Spokane has now completed its second full year. This work has positioned us well to continue to build a world-class medical education program in Spokane. Our goal has long been to build a program that meets the health workforce needs of Eastern and Central Washington. That aspiration began with the start of the WWAMI program through our WSU WWAMI program in Pullman nearly 45 years ago as well as with extensive clinical training by clinicians for our students in Spokane and Eastern Washington. The locus of this training for first and second year students moved to Spokane with WSU’s decision to close the Pullman WWAMI site a year ago.

Forty students in the entering class of 2015 will complete their 18-month Foundations Curriculum in Spokane, working with an outstanding faculty team led by William Sayres, a family physician and the UWSOM Spokane assistant dean for the Foundations Phase. He has served as a clinical guide in the second-year pilot and has helped to build an outstanding, integrated medical education program. Results from program evaluation indicate that Spokane students performed as well as, and in some cases better than, students in the traditional Seattle second-year medical education program. This is due in part to the innovative, active-learning approach developed by our UWSOM Spokane team. Their work has helped to guide our planning for the new curriculum starting at all of our sites.

The UWSOM Spokane faculty team consists of 20 superb teachers now in place to teach our students in Spokane in the first and second year curriculum. In addition, 40 primary care physicians in the Spokane area have volunteered to mentor medical students for the first 18 months of their training and more than 360 area physicians teach clinical clerkships and electives for UWSOM students in their practices. These types of experiences are vital to our students’ medical education.

New UWSOM Spokane faculty are: John Charyk, family medicine; Tim Chestnut, pulmonary and critical care medicine; Molly Gilbert, family medicine; Christopher Goodwin,
family medicine; **Clint Hauxwell**, family medicine; **Denise Pounds**, family medicine; **Aaron Scott**, emergency medicine; and **Michael Stephens**, family medicine.

Returning UWSOM Spokane faculty in addition to Dr. Sayres are: **Bruce Abbotts**, pediatrics; **Janelle Clauser**, internal medicine and pediatrics; **Alisa Hideg**, family medicine; **Matt Hollow**, internal medicine; **Geoff Jones**, family medicine; **John McCarthy**, family medicine and UWSOM central and eastern dean, Washington assistant clinical dean; **Darryl Potyk**, internal medicine, geriatrics and UWSOM Spokane assistant clinical dean; **Nan Smith**, family medicine; **Judy Swanson**, internal medicine; **Cicely White**, pediatrics; and **Karen Wildman**, family medicine.

We will again offer second year medical education in Spokane during the upcoming year. This will be the final year of the traditional second-year program in which most second-year students come to Seattle and 18 students will be in Spokane. Beyond this year, we will have a full complement of students in each class in Spokane and plan to build the class size substantially over coming year if legislative funding permits.

UWSOM Spokane medical education classes will continue to be held on the Riverpoint campus in Spokane. We are in active discussions with Gonzaga University as a potential future university partner and hope to have plans firmed up in the near future.

**Scientific Discovery**

**Key research initiatives**

- The Bellevue-based Ellison Foundation is investing $6 million in UW Medicine’s Alzheimer’s Disease Research Center for a project that could revolutionize care for Alzheimer’s. The gift will allow UW researchers to take important steps in using precision medicine for Alzheimer’s disease: from understanding the genes and other factors that drive Alzheimer’s, to creating and finding drugs to treat it, and finally to understanding how different patients respond. **Tom Montine**, professor and chair of the Department of Pathology, directs the Center.

- The UW, in collaboration with the Fred Hutchinson Cancer Research Center (FHCRC), has been awarded a five-year, $14.5 million grant from the NIH for a Sexually Transmitted Infections Cooperative Research Center to investigate the human genital microbiome and its relationship to sexually transmitted infection. **Jeanne Marrazzo**, UW professor of medicine, is the principal investigator and **Anna Wald**, UW professor of medicine, is co-director. The team will study the genital microbiome and local immune response to describe the dynamics of the bacteria that make up the genital microbiome, including their interactions with sexually transmitted infections. This knowledge will help devise new strategies to prevent and manage common clinical problems of major health relevance, including bacterial vaginosis, genital herpes and urethritis.

- The UW will test a wearable artificial kidney designed to help patients with kidney disease to filter their blood while remaining mobile. The wearable artificial kidney, or WAK, is a miniature, 10-pound dialysis machine that a patient can wear around his or her body like a belt. The system is also attached to the person using a catheter. Developed by Victor Gura of the University of California-Los Angeles, the device is set apart from standard machines because it runs on batteries and has no need to be attached to an outlet.
The WWAMI Center for Health Workforce Studies in the Department of Family Medicine was selected by the Health Resources and Services Administration (HRSA) to become a Health Workforce Research Center (HWRC), one of six in the nation. The HRSA HWRC program supports high-quality, impartial, policy-relevant research to assist decision-makers at the federal, state and local levels to better understand health workforce needs. Each HWRC conducts research focusing on a workforce theme — the UW HWRC will study allied health. **Eric H. Larson**, UW research associate professor for MEDEX Northwest, is the new Center’s director and **Sue Skillman** has been named deputy director.

**Major new research awards**

- **Rainer Storb**, professor of medicine in the Division of Medical Oncology, received a $12.9 million grant from the National Heart, Lung, and Blood Institute to improve treatments for patients with inborn diseases of the immune system and red blood cells. Storb and collaborators will launch a five-year, bench-to-bedside research program that seeks to refine treatments based on blood stem cell transplantation for immune deficiencies, such as the condition commonly known as "bubble-boy disease," and non-cancerous disorders of red blood cells, such as sickle-cell disease. Their goal is to make transplantation safer and more widely available to people facing these diseases.

- The UW received four grants from Washington State’s Life Sciences Discovery Fund. **Ingrid Pultz**, UW senior fellow in biochemistry, will assess the efficacy, safety and optimal dosing of an oral enzyme therapy for celiac disease. **Thomas Rea**, UW professor of medicine in the Division of General Internal Medicine, will create an innovative software solution that enables patient-specific treatment during continuous cardiopulmonary resuscitation. **Edward Clark**, UW professor of microbiology and immunology, is working to synthesize and test a new vaccine for treating chronic hepatitis B infection. **Raimondo D’Ambrosio**, UW associate professor of neurological surgery, is conducting the first in-human testing of a brain cooling device intended to prevent seizures.

- The UW received one of three new research awards to address the growing proportion of the U.S. population that has multiple chronic medical conditions. The grants are funded through the NIH Health Care Systems Research Collaboratory, which engages healthcare systems as research partners in conducting large-scale clinical studies. The new awards total up to $19.4 million over five years. **Douglas Zatzick**, UW professor of psychiatry and behavioral sciences, is leading the study. Patients who are being treated for acute physical injuries and who also have conditions such as post-traumatic stress disorder, alcohol and drug use problems, depression, chronic pain and other medical conditions will be part of the trial.

- The Environmental Protection Agency (EPA) is providing $6 million in seed funds for a Predictive Toxicology Center at the University of Washington. The center is intended to enable researchers to develop more accurate, higher capacity in-vitro models of organ-mimicking cell cultures to test chemicals' potential risk to humans. **Elaine Faustman** and **Terrance Kavanagh**, both UW professors of environmental and occupational health sciences in the School of Public Health, will co-direct the new center. Researchers from the Schools of Public Health, Pharmacy and Medicine will develop three-dimensional cell cultures for the kidney, liver, lung and testis to better model how a person would respond to a chemical exposure. **William Altemeier**, UW
associate professor of medicine in the Division of Pulmonary and Critical Care Medicine, will lead the center's lung cell culture development.

• A national alliance of cancer-focused groups recently announced the formation of a 'dream team' dedicated to ovarian cancer research and an investment of $6 million over three years to pursue therapies. The team will be co-led by Elizabeth Swisher, UW professor of obstetrics and gynecology, and Alan D’Andrea of the Gene Therapy Center at Dana-Farber Cancer Institute in Boston. Cancer genetics and hereditary cancers are the focus of Swisher's clinical and research work. Ovarian cancer is the deadliest gynecologic cancer. Approximately 22,000 women in the United States are diagnosed with ovarian cancer every year, and 14,000 die of the disease.

Research highlights from the year

• The UW Institute for Health Metrics and Evaluation (IHME) was formed in 2007 with funding from the Bill & Melinda Gates Foundation and the state of Washington. IHME is an independent global health research center that provides rigorous and comparable measurement of the world’s most important health problems and evaluates the strategies used to address them. IHME makes this information freely available so that policymakers have the evidence they need to make informed decisions about how to allocate resources to best improve population health.

Christopher Murray, UW professor of global health, is the IHME director. Murray is a founder of the Global Burden of Disease (GBD) approach, a systematic effort to quantify the comparative magnitude of health loss due to diseases, injuries, and risk factors by age, sex, and geography over time. He led the collaborative of almost 500 researchers from 50 countries that produced the Global Burden of Diseases, Injuries, and Risk Factors Study 2010 (GBD 2010). Initial findings from GBD2010 were published in The Lancet in 2012 in its first-ever triple issue devoted to one study.

To provide policymakers, researchers, donors, and other decision-makers with the most timely and up-to-date picture of population health to inform critical decisions, GBD is producing annual updates to its estimates. The first update, GBD 2013, uses and expands upon the infrastructure of methodology, datasets, and tools that were presented in GBD 2010, and presents estimates of all-cause mortality, deaths by cause, years of life lost, years lived with disability, and disability-adjusted life years by country, age, and sex.

I urge you to look at the IHME website that has a remarkable database freely available to users worldwide at http://www.healthdata.org/gbd. Among the many findings published in the past year from IHME are the following:

- Today, fewer people are dying from HIV/AIDS, tuberculosis (TB) and malaria, according to a new, first-of-its-kind analysis of trend data from 188 countries led by the IHME. The pace of decline in deaths and infections has accelerated since 2000 when the Millennium Development Goals were established to stop the spread of these diseases by 2015. New HIV infections dropped by almost one-third from the epidemic’s peak; TB deaths declined by 3.7 percent between 2000 and 2013; and child deaths from malaria in sub-Saharan Africa have dropped 31.5 percent over the past decade. The study was published in The Lancet July 22, 2014.
Despite new cases of virtually all types of cancer rising in countries globally—regardless of income—death rates from cancer are falling in many countries, according to an international consortium of researchers led by the IHME. The researchers, analyzing 28 cancer groups in 188 countries, found that prostate cancer and breast cancer have increased significantly since 1990, and cancer poses a special challenge in developing countries where access to screening and costly treatment is rare. The results were published in *JAMA Oncology* on May 28, 2014.

Other publications from the IHME can be viewed at [http://www.healthdata.org/gbd/publications](http://www.healthdata.org/gbd/publications).

- A study of 2,377 children with autism, their parents, and their siblings has revealed novel insights into the genetics of autism. By analyzing data from families with one child with autism and one or more children without the condition, the researchers collected new information on how different types of mutations affect autism risk. The genetic data was obtained from exome sequencing, which looks at only the protein-coding portions of the genome. The researchers quantified the autism risk of inherited gene mutations that truncate the formation of proteins. They were particularly interested in those proteins which are usually unscathed in the study subjects unaffected by autism. The researchers found that the effect was strongest when they observed mutations transmitted from mothers to sons. This observation suggests a female may harbor such mutations without developing autism, but when the mutations are passed along to her male offspring, the boys are at risk of the condition. The study also provides one of the most complete genetic pictures of autism to date. **Evan Eichler** is the study’s senior author, which was reported May 11, 2015 in *Nature Genetics*.

- A newly developed mouse model suggests that genetic factors are behind the mild-to-deadly range of reactions to the Ebola virus. People exposed to Ebola vary in how the virus affects them. Some completely resist the disease, while others suffer moderate to severe illness and recover. People who are most susceptible succumb to bleeding, organ failure and shock. In the Oct. 30 issue of *Science*, scientists describe strains of laboratory mice bred to test the role of an individual’s genetic makeup in the course of the Ebola disease. Systems biologists and virologists **Angela Rasmussen**, research scientist in the Department of Microbiology, and **Michael Katze**, professor of microbiology, both from the Katze Laboratory, led the study. They collaborated with the NIH’s Rocky Mountain Laboratories in Montana and University of North Carolina at Chapel Hill. The research was conducted in a highly secure, state-of-the-art bio containment safety level 4 laboratory in Hamilton, Mont.

- The American Cancer Society awarded **Mary L. “Nora” Disis**, UW professor of medicine in the Division of Oncology, one of its 2015 research awards for her work on “Vaccines targeting cancer initiation antigens to prevent colon cancer.” The $400,000 unrestricted award “provides flexible funding for full-time investigators in mid-career who have made seminal contributions to cancer research and who will continue to provide leadership in their research area.”

- A large study links a significantly increased risk for developing dementia, including Alzheimer’s disease, to taking commonly used medications with anticholinergic effects at higher doses or for a longer time. *JAMA Internal Medicine* published the report. The researchers looked at medical and pharmacy records to determine how many of the people had been given a drug with an anticholinergic effect, at what dose and how often and compared this data with subsequent
dementia diagnoses over the next decade. The most commonly used anticholinergic-type drugs were medicines for treating depression, antihistamines for allergies such as hay-fever or to aid sleep/promote drowsiness, and drugs to treat urinary incontinence. Nearly a fifth was drugs that had been bought over the counter.

- In newly published research from UW Medicine, depression and type 2 diabetes were each associated with an increased risk for dementia. The risk was even greater among individuals diagnosed with both depression and diabetes, according to work led by UWSOM researchers. The findings appeared April 15 in JAMA Psychiatry. The late Wayne Katon, a noted researcher on the associations between depression and chronic disease, was the lead author of the study, which was published posthumously.

- A collaboration of UW specialists in trauma medicine and bioengineering has developed a synthetic substance that might help prevent some severely injured people from bleeding to death. The injectable polymer is designed to make blood clots stronger, forming a kind of bandage that can stem or stop bleeding, even from internal wounds. Blood loss is the second leading cause of death following a trauma, such as a crash or gunshot. Nathan White, UW assistant professor of medicine in the Division of Emergency Medicine who also treats trauma patients at Harborview Medical Center, said someday first responders could be injecting the polymer into patients out in the field.

- Older patients with low-back pain who have imaging studies such as X-rays, MRI and CT scans of their spines within six weeks of the emergence of new pain tend to use more health services and incur higher costs but do no better one year afterward than those who have imaging studies later or not at all, according to a study published in the March 17 issue of JAMA. The study suggests that adults age 65 and older should not be treated differently than younger adults, with respect to low-back imaging. Jeffrey Jarvik, UW professor of radiology, health services and neurological surgery, is the study's lead author.

- Two large clinical trials co-led by Bonnie Ramsey, UW professor of pediatrics and researcher at the Center for Clinical and Translational Research at Seattle Children's Research Institute, find that a new drug may help nearly half of people with cystic fibrosis—and reduce the leading cause of death from the disease. Ramsey is one of four lead authors of two Phase 3 clinical trials that confirmed that Orkambi, a new drug from Vertex Pharmaceuticals, can help people age 12 and older with two copies of the most common mutation known as F508del.

- An exhaustive analysis has been conducted of more than 12,000 distinct proteins present in an often aggressive and difficult to treat form of breast cancer, called triple-negative breast cancer. The results, reported in Cell Reports, may help explain why these cancers often fail to respond to current drug treatments and may provide researchers with new targets for drug therapy. Robert Lawrence, UW graduate student in molecular and cellular biology, is the lead author of the article. Judit Villén, UW assistant professor of genome sciences, is the paper's senior author. Triple-negative breast cancer, one of every five breast cancers, occurs more often in women under age 40 and in African-American women.
• Cells dying as the result of radiation exposure or chemotherapy can send a warning to nearby stem cells. The chemical signal allows the stem cells to escape the same fate. The study by UW researchers was reported in the May 11 issue of Nature Communications. The discovery may explain why many cancers return after initially responding to treatment and could lead to new, more effective cancer drugs. Yalan Xing, a postdoctoral fellow in the UW Department of Biochemistry is the lead author of the study.

• An often-effective treatment exists for people who want to stop abusing prescription opioid painkillers or escape heroin addiction, but that treatment is unavailable in U.S. counties where more than 30 million people live. The drug, buprenorphine-naloxone, cannot be prescribed without a waiver from the federal Drug Enforcement Administration (DEA). UW researchers found that, as of 2012, only 2.2 percent of U.S. physicians had obtained the waiver and, notably, 90 percent of those physicians practiced in urban counties. Thus, 53 percent of U.S. counties, most of them rural, have no physician licensed to dispense buprenorphine. The study, published in January 2015 in the Annals of Family Medicine, was led by longtime UW physician and teacher Roger Rosenblatt, who died in December. For 40 years he championed the effort to improve rural healthcare in the Pacific Northwest.

• Thousands of never-before-seen genetic variants in the human genome have been uncovered using a new sequencing technology. These discoveries close many human genome mapping gaps that have long resisted sequencing. The technique, called single-molecule, real-time DNA sequencing (SMRT), may now make it possible for researchers to identify potential genetic mutations behind many conditions whose genetic causes have long eluded scientists. Evan Eichler, UW professor of genome sciences, led the team that conducted the study published in Nature Nov 10.

• Sudden cardiac arrest is the leading cause of death among athletes, but the incidence of such deaths has only been estimated, to date, because reporting has not been mandatory. A new study by UW researchers, with collaborators in the United Kingdom and Qatar, suggests that the incidence may be 1 in 50,000 — four times higher than the most frequently cited figure of 1 in 200,000 athletes. Two journals, Heart and the British Journal of Sports Medicine, simultaneously published the study online. The lead author is Kimberly Harmon, UW professor of family medicine and of orthopedics and sports medicine.

• The NIH's new standards on back-pain research, published in six peer-reviewed journals — The Journal of Pain, The Clinical Journal of Pain, European Spine Journal, Journal of Manipulative and Physiological Therapeutics, Pain Medicine, Spine and The Spine Journal — emerged from a 16-member task force that included four University of Washington faculty members—two as task force co-chairs. The NIH calls for researchers to use the recommended definitions of chronic pain, methods of assessment and, most importantly, a recommended minimal data set for inclusion in relevant NIH-funded research grants. The goal is to bring needed standardization of terms and measures to basic aspects of back pain research. Samuel Dworkin, UW emeritus professor in the schools of Dentistry and Medicine, co-chaired the task force with Richard Deyo, UW affiliate faculty member in the School of Public Health and currently at Oregon Health & Sciences University. UW faculty on the task force also included Dennis Turk, holder of the John & Emma Bonica Endowed Chair in Anesthesiology and UW professor of anesthesiology and pain medicine, and John Loeser, UW professor of neurological surgery.
Patient Care Programs

Administrative changes

- **Paul Hayes** became executive director of Harborview Medical Center in November 2014. Hayes has more than 30 years of experience in healthcare, including during the past 15 as executive vice president and chief operating officer at Valley Medical Center in Renton, a UW Medicine entity.

- The Department of Medicine named **Paul Nghiem**, UW professor of medicine and adjunct professor of oral health sciences and pathology, as head of the Division of Dermatology in the Department of Medicine and holder of the George F. Odland Endowed Chair in Dermatology. Nghiem is known for outstanding research and dynamic patient-oriented teaching activities. Nghiem is an expert on Merkel cell carcinoma and a leader in establishing the widely accepted guidelines for staging of this malignancy, describing prognostic features of the disease and studying the basic pathogenesis of the disease. He succeeds **John Olerud**, who retired as division head in 2014 after 26 years in the position. **Philip Fleckman** served as interim division head until Nghiem’s appointment this year.

- **Steven Zienewicz**, medical director of UW Medical Center, has accepted a new position as president and chief executive officer of Barnabas Medical Center in Livingston, New Jersey. He starts in September, 2015. **Geoff Austin**, associate administrator for UW Medical Center, will serve as acting medical director while a national search is conducted.

- After a national search, **Debra Gussin** has been named executive director for the UW Neighborhood Clinics (UWNC), effective August 15, 2015. Gussin has more than 30 years of experience in healthcare and has worked for UW Medicine for 20 years. She most recently served for the past seven years as the associate administrator for Ambulatory Care Services at Harborview Medical Center. She replaces **Meg Kerrigan** who served in the position from 2008 until her retirement at the end of 2014.

Key clinical initiatives and milestones

- The UWSOM’s Palliative Care Center of Excellence received a $10 million grant from the Cambia Health Foundation based in Portland, the largest grant ever from Cambia. The interdisciplinary center, which was renamed the **Cambia Palliative Care Center of Excellence**, was launched in 2012 under the direction of **J. Randall Curtis**, UW professor of medicine in the Division of Pulmonary and Critical Care Medicine. The center involves health professionals in medicine, public health, nursing and social work and helps to manage the pain, stress and symptoms that come from serious chronic illnesses, not just end-of-life treatment. The funding is being used to hire more people so that more healthcare professionals will have the opportunity to practice this type of care and integrate palliative care into their work. The funding also supports palliative care research and education at UW Medicine.

- The **Ebola outbreak** this past year challenged healthcare settings nationwide and worldwide. A number of individuals in King County were under Ebola surveillance. As part of regional Ebola planning, the Washington State Department of Health designated Harborview Medical Center as one of our state’s Ebola Treatment Facilities prepared to care for a patient with confirmed Ebola virus.
disease for the duration of a patient’s illness. Harborview had an on-site assessment of its Ebola preparations by the Centers for Disease Control and Prevention (CDC), Washington Department of Health and Public Health in December, leading to the state designation following the CDC guidelines for a tiered approach to acute healthcare facility preparations.

Two additional UW Medicine hospitals joined Harborview Medical Center in adopting infection-control protocols necessary to care for prospective Ebola patients. UW Medical Center and Valley Medical Center were among several facilities statewide prepared to follow CDC guidelines to identify, isolate, evaluate and treat patients with suspected or confirmed Ebola virus disease. The UW campus as a whole and UW Medicine as a healthcare system, performed extensive readiness preparation aligned with national guidance from the CDC and with localized advisories from city, county and state health departments.

UW Medicine physicians were deployed to the CDC in Atlanta for a close-up look at handling an outbreak. In addition, many faculty and staff helped in the Ebola preparation effort both here and in West Africa. Among UW community members who served in West Africa, Shevin Jacob, UW acting assistant professor of medicine in the Division of Allergy and Infectious Diseases, had multiple deployments. As part of a team, he consulted with the World Health Organization in Monrovia, Liberia to open a new Ebola treatment unit at the former Ministry of Defense compound. This unit added 200 more beds to the almost 500 available for Ebola patients in the Liberian capital, the epicenter of the outbreak.

Thanks to all UW faculty and staff who contributed here and abroad as well as to all WSMA members and hospitals contributing toward widespread preparation. Jeff Duchin, chief of communicable disease and epidemiology for Public Health - Seattle and King County and UW professor of medicine, was instrumental in the success of region-wide preparedness.

- The UW Department of Obstetrics & Gynecology opened UW Medicine’s newest Maternal Fetal Medicine Clinic, located in Arlington, Wash. at Smokey Point, July 1. UW Medicine’s 12 maternal-fetal medicine specialists consult on pregnancies at risk for preterm delivery and maternal conditions such as diabetes, hypertension and diseases of the heart, kidneys, lungs and immune system. They also provide prenatal screening, counseling and diagnosis of suspected fetal anomalies and genetic conditions.

- Tim Dellit, UW professor of medicine in the Division of Allergy & Infectious Diseases and associate dean for clinical affairs, was named medical director for Alaska Airlines. Dellit and UW Medicine will provide consultation, particularly in the area of infectious diseases and infection control and will coordinate with Alaska Airlines’ Safety Program in education, training and response to emerging health threats.

- UW Medicine has launched the Pelvic Health Center, a multi-disciplinary program involving the departments of urology, obstetrics and gynecology, surgery, rehabilitation medicine and others. The center coordinates care and connects patients with pelvic floor issues to care experts in urogynecology, urology, gastroenterology, colorectal surgery and pelvic health physical therapy at both the UW Medical Center main campus and the UW Medicine Eastside Specialty Center in Bellevue. Suzette Sutherland, UW associate professor of urology, is director.
• The UW Medicine Accountable Care Network continues the work that formally began in June 2014. UW Medicine has been preparing for many years to serve as an accountable care organization (ACO) committed to improving the patient experience, achieving better health outcomes for the population of patients we serve, and reducing costs to improve the value of care. As reported last year, Boeing is the network’s first contract. In addition, UW Medicine was recently granted one of two contracts with the Washington State Health Care Authority as a new healthcare option for those enrolled in the Public Employees Benefit Board (PEBB) program for coverage beginning Jan. 1, 2016. We are grateful to our many hospital and physician partners in Washington participating in the network.

• In May, Airlift Northwest’s Yakima base began offering around-the-clock service to Central Washington residents needing emergency medical transport. Since December 2011, Airlift Northwest has day-based a Turbo Commander aircraft at McAllister Field. The Yakima-based crew serves patients from Yakima as well as Wenatchee, Sunnyside, Toppenish, Ellensburg, Omak, Moses Lake, Tri-Cities and other Central and Eastern Washington locations.

Clinical accomplishments and honors

• UW Medicine’s Behavioral Health Integration Program (BHIP) received a Certificate of Special Achievement in recognition of its innovation and quality from the American Psychiatric Association’s Psychiatric Services Achievement Awards. BHIP is in place at all 10 UW Medicine Neighborhood Clinics as well as at Harborview Medical Center and UW Medical Center. The program provides mental health care for chronic conditions like depression and anxiety at the clinics by using Collaborative Care, an integrated care model developed at the University of Washington.

• The American Association of Critical Care Nurses awarded a gold-level Beacon Award for Excellence to the Medical Cardiac Intensive Care Unit at Harborview Medical Center. The Beacon Award for Excellence recognizes unit caregivers who successfully improve patient outcomes and align practices with the American Association of Critical Care Nurses six healthy work environment standards.

• Northwest Hospital & Medical Center and Valley Medical Center were recognized by the Washington State Hospital Association for outstanding achievement in improving patient safety. The two facilities, among 14 statewide to receive the award, are participating in a national initiative to reduce the number of hospital-acquired conditions by 40 percent and hospital readmissions by 20 percent by the end of 2014.

• Harborview Medical Center, Northwest Hospital & Medical Center, UW Medical Center and Valley Medical Center were named “Leaders in LGBT Healthcare Equality” and are included in the Human Rights Campaign 2014 Healthcare Equality Index. The Healthcare Equality Index is a survey that encourages equal care for LGBT Americans, and recognizes healthcare institutions doing the best work.

• Harborview Medical Center received an “A” for patient safety for the fourth consecutive time from The Leapfrog Group’s Hospital Safety Score program. The Leapfrog Group is an independent healthcare industry watchdog that advocates for public access to quality and safety
data from U.S. hospitals. An "A" signifies that Harborview is among the safest hospitals in the region and nation.

- UW faculty received top honors again this year from the 2015 Leaders in Health Care Awards given each year by *Seattle Business Magazine*, including several for clinical accomplishments: Richard "Rick" Goss, medical director at Harborview Medical Center and professor of medicine, received the Outstanding Medical Director award. Mika Sinanan, president of the UW Physicians Practice Plan and professor of surgery, received the Silver Award for Outstanding Medical Group Executive.

Faculty Honors

- **Mary-Claire King**, UW professor of medicine in the Division of Medical Genetics and of genome sciences, will receive the Lasker-Koshland Special Achievement Award in Medical Science Sept. 19 in New York City for her "bold, imaginative and diverse contributions to medical science and human rights." The Albert and Mary Lasker Foundation Award is one of the world's most prestigious scientific prizes and comes with a $250,000 honorarium. The UW now has seven Lasker Award recipients; two later received the Nobel Prize in medicine. King, an American Cancer Society professor, is a world leader in cancer genetics and in the application of genetics to resolution of human right abuses. She was the first to demonstrate that a genetic predisposition for breast cancer exists as a result of inherited mutations in the gene she named BRCA1. More recently, she has worked with **Tom Walsh**, UW associate professor of medicine in the Division of Medical Genetics, to create a screen for all genes that predispose to breast and ovarian cancers. She has also used her genetic expertise to reunite children missing from their families in Argentina, to find soldiers missing in action in WWII, Vietnam, Korea and Cambodia and to identify people buried in mass graves in Rwanda, Central America and the Balkans.

**Mary Claire King** was also recognized for her groundbreaking work in breast cancer genomics with the Achievement in Health Care Research top award from the 2015 Leaders in Healthcare award sponsored by *Seattle Business Magazine*.

- Two UWSOM faculties were elected as fellows to the American Association for the Advancement of Science (AAAS) this year. **Jeffrey Chamberlain**, UW professor of neurology and the McCaw Endowed Chair in Muscular Dystrophy, was honored "For distinguished contributions to understanding and developing therapies for Duchenne muscular dystrophy." Chamberlain is director of the new Sen. Paul D. Wellstone Muscular Dystrophy Cooperative Research Center at UW – a collaborative venture between scientists and clinicians at the UW, Fred Hutchinson Cancer Research Center, Seattle Children's Hospital and the University of Rochester (N.Y.) funded by the National Institute of Arthritis and Musculoskeletal and Skin Diseases, a branch of the National Institutes of Health.

**Rainer Storb**, UW professor of medicine in the Division of Medical Oncology and head of the Transplant Biology Program at Fred Hutchinson Cancer Research Center, was elected a fellow of the AAAS and was cited "For distinguished contributions to the field of bone marrow transplantation, particularly the development of animal model systems to improve treatment regimens and understand hematological diseases." Storb is a world leader in the development of
more effective, less toxic approaches to blood stem-cell transplantation for the treatment of cancers such as leukemia, lymphoma, myeloma and myelodysplasia as well as other diseases.

- **Randall “Randy” Moon** is among this year’s inductees to the National Academy of Sciences (NAS). He joins 34 other UW Medicine faculty who has been elected to NAS. Moon, who is also a Howard Hughes Medical Institute Investigator, is the founding director of the UW Institute for Stem Cell and Regenerative Medicine Research (ISCRM), where he also holds the William and Marilyn Conner Chair. His most recent work has yielded insights into disease mechanisms and identified new therapeutic avenues through the regeneration of nerve and heart tissue. His lab is also looking at modulating Wnt signaling in cancer as a potential therapeutic target, particularly for melanoma.

- **Sue Biggins**, UW affiliate professor of biochemistry and geneticist and cell biologist at the Fred Hutchinson Cancer Research Center, was also inducted to the National Academy of Sciences. She studies the cellular machinery that, when working properly, assures the accurate distribution of chromosomal material during cell division. Biggins and her team are credited with several important discoveries related to a cellular machine called the kinetochore.

- **Stanley Fields**, UW professor of genome sciences and medicine and adjunct professor of microbiology, was elected to the American Academy of Arts & Sciences. Fields, who is also a Howard Hughes Medical Institute investigator, develops biological assays to analyze the functions of proteins, often using yeast as a model for assays that can be applied to proteins from any organism. He is most widely known for inventing a technique, with his colleague Ok-Kyu Song that has transformed biology, the two-hybrid system that permits the study of protein interactions in the cell.

  *Stanley Fields* was also elected to the Genetics Society of America's Board of Directors as the society's next president. He will begin his tenure as vice president on Jan. 1, 2015, serve as president in 2016, and then as past president until Dec. 31, 2017.

- Three UW scientists are among the 26 newly named investigators for the Howard Hughes Medical Institute. The mid-career scientists remain at their home institutions and will receive flexible funding to pursue biomedical research. The investigators are encouraged to have the freedom to explore new areas of inquiry. The new investigators are: **Sue Biggins**, UW affiliate professor of biochemistry and geneticist and cell biologist at the Fred Hutchinson Cancer Research, **Joseph D. Mougous**, UW associate professor of microbiology, and **Jay Shendure**, UW associate professor of genome sciences.

- **Frederick Rivara**, UW professor of pediatrics and adjunct professor of epidemiology, was named to serve on the Advisory Council to the Eunice Kennedy Shriver National Institute of Child Health and Human Development. Rivara’s contributions to the field of injury control span 30 years. He served as founding director of the Harborview Injury and Research Center in Seattle for 13 years and was founding president of the International Society for Child and Adolescent Injury Prevention.
• **Jürgen Unützer**, UW professor and chair of psychiatry and behavioral sciences, received the American Psychiatric Association’s Health Services Research Senior Scholar Award. The award recognizes singular or sustained research accomplishments by a researcher beyond early career status, which have made important contributions to the field of mental health services research. In addition, Unützer accepted an invitation to serve a three-year term on the National Advisory Council for the Center for Mental Health Services, a branch of the Substance Abuse and Mental Health Administration.

• UW researchers **Paul Lange**, chair and professor emeritus of urology, and **Robert Vessella**, professor of urology and director of the UW Genitourinary Cancer Research Lab, received the Lifetime Achievement Award from the Prostate Cancer Foundation. The award was given for career-wide meritorious research accomplishments in prostate cancer, including pioneering work on the prostate-specific antigen (PSA) test, developing the world’s largest collection of human prostate cancer animal models, initiating the rapid autopsy program to better study advanced, metastatic disease and initiating and enhancing the Institute for Prostate Cancer Research or IPCR. The IPCR is a collaboration of UW and FHCRC researchers and one of the top federally funded research teams for prostate cancer in the nation.

• **William Catterall**, UW professor and chair of pharmacology, and **Todd Scheuer**, UW research professor of pharmacology, received the 2015 Kenneth S. Cole Award in membrane biophysics from the Biophysical Society. Walter Stühmer, who did postdoc work in the Department of Physiology and Biophysics at UW, and is the director of the Molecular Biology of Neuronal Signals at the Max Planck Institute of Experimental Medicine in Germany, also shares the award. Cole is a well-known physicist and a founder of the Biophysical Society. This year’s winners join 44 past recipients of this prestigious award. Catterall and Sheuer were recognized for seminal contributions to our understanding of sodium and calcium channels at the molecular and structural level.”

• **Irl B. Hirsch**, UW professor of medicine and Diabetes Treatment and Teaching Chair at the School of Medicine, was elected to mastership level in the American College of Physicians in recognition of his outstanding and extraordinary career accomplishments.

• **Carlos Pellegrini**, the Henry N. Harkins Chair of Surgery at the UW, was elected to the Board of Commissioners of the Joint Commission, an independent nonprofit based in Oakbrook, Ill. The agency accredits and certifies more than 20,500 health care organizations and programs in the United States. Pellegrini’s three-year term begins Jan. 1.

• **Christopher Varley**, UW professor of psychiatry and behavioral sciences, and program director for child and adolescent psychiatry, received the 2015 Parker J. Palmer Courage to Teach Award, which honors program directors who find innovative ways to teach residents and to provide quality healthcare while remaining connected to the initial impulse to care for others in this environment. The award honors 10 program directors each year, out of some 8,800 program directors nationally. Since 2002, 11 UW program directors have received this award.

• The JAMA Network launched a new journal, *JAMA Oncology*, to publish important cancer-related research, and named **Mary L. (Nora) Disis**, UW professor of medicine in oncology and associate dean of translational science in the UW School of Medicine, as editor-in-chief.

• UW School of Medicine Alumni Awards for 2015 were presented in June to:
- **Distinguished Alumni Award**: John Olerud, professor emeritus of medicine in the Division of Dermatology and former division head, was honored for his contributions to the field of dermatology. He has published more than 100 articles, with much of his research focused on the areas of wound healing and T-cell lymphoma. He is widely admired as a physician, teacher and researcher. He graduated from the UW School of Medicine in 1971 and completed advanced training at the UW in 1978.

- **Alumni Humanitarian Award**: Jamie Garcia, M.D. '99 (awarded posthumously), was honored for her years of tireless work to bring healthcare to the most impoverished members of her community, providing care to the homeless who were too afraid to seek care in a clinic and improving access to healthcare for the uninsured.

- **Alumni Early Achievement Award**: Jared Baeten was recognized for exceptional achievements in global health, excellent teaching, and contributions to research, which have had a major impact on global HIV prevention and reproductive health priorities. He graduated from the UW School of Medicine in 20013, completed his PhD in 2001, and his fellowship in 2008.

- **Alumni Service Award**: John Betz, PA-C (MEDEX, Seattle Class 1) was recognized for his 44-year career serving the rural community of Othello, Wash. Beginning in 1970, he tended to the health concerns of several generations of Othello residents, including countless farmworkers, often at no cost.

### Passages

The past year was one in which we lost many beloved members of our community. Among our very active alumni, we mourn the passing of [Martin George Burkland](#), class of 1952 (internal medicine), one of the last remaining members of the class of 1950—the first class to enter the UW School of Medicine. Burkland practiced in Ballard for 40 years. Among his career highlights was the co-creation of an emergency room at Ballard Community Hospital staffed by four physicians. At the time, it was only the second such facility in the United States; other ERs were located in teaching hospitals. He was an active and dedicated alumnus, beloved and respected by many.

[Richard Layton](#), a UW School of Medicine alumnus and recipient of the 2014 UW Distinguished Alumni Veteran Award, died June 8, 2015. Layton served as a second-class petty officer in the US Navy in 1945-46; at Bikini Atoll, he saw the fourth and fifth atom bombs detonated over a gathering of warships. His task then was to board the ships to retrieve their radar in an attempt to learn the bomb's effects. His long life was a miracle in view of his radioactive immersion in this endeavor. Layton was in the fifth class of the UW School of Medicine and went on to practice rural medicine in Grandview, Wash., for almost 20 years. He was also a pioneer physician in the WWAMI and physician-assistant programs, each dedicated to providing communities with better access to medical care. For 20 years at Providence Hospital in Seattle (later Swedish), he directed a family-practice residency program that focused on serving the inner-city population.

On Dec. 12, 2014, [Roger Rosenblatt](#), professor and vice chair of the UW Department of Family Medicine, died after a long illness. Rosenblatt was one of the key individuals who shaped the WWAMI program. His deep and abiding commitment to rural health
began during his family medicine residency here. During that training, he was the first resident to complete rural rotations, pioneering clinical rotations in Grandview and Omak. Rosenblatt went on to have a profound impact on regional and national policy through his work helping to found the National Health Service Corps, and through his research, publications and active participation in rural healthcare. At the UW, he was co-founder of the WWAMI Rural Health Research Center, which he went on to co-direct.

Wayne Katon, professor and vice chair of psychiatry and behavioral sciences and a pioneer in collaborative mental health care, died March 1, 2015 from lymphoma. He was 64. Recognizing that people with physical pain often suffer from depression and that people who were depressed rarely received mental health care, Katon brought together the practices of psychiatry and primary care. He spent three decades testing and developing models of care to make mental health care more accessible. Katon worked tirelessly to improve the lives of those living with mental and physical health problems. He touched and inspired thousands of students, residents and faculty colleagues at UW and around the world.

Stuart "Stu" Farber, a founder of UW Medicine's palliative care service who helped patients and their families prepare for life's end, died Friday at age 67 after a battle with acute myelogenous leukemia. Farber told his family he was grateful that he could spend his last days at home. He worked as a family doctor in Tacoma for 17 years, and for the past couple of decades was a professor at the UW School of Medicine, where he founded and directed the Palliative Care Service at UW Medical Center. In the past year, Farber also helped develop a palliative care training center at the UW. The first class of 24 physicians, nurses and other clinicians recently matriculated.

Jackie Ling Der, who served as director of medical policy affairs for the UW School of Medicine for 22 years, died March 2, 2015 from cancer. She was 61. Der dedicated her career to public service at the federal, state, city and university levels. At UW, her job was to provide a liaison with state policy makers and private industry for the academic medical center, which includes UW Medical Center and Harborview Medical Center. She was a huge advocate for affordable healthcare and quality medical services.

John Brunzell, an internationally renowned lipidologist and endocrinologist, died on Feb. 21. He was 77. A graduate of the UW School of Medicine, he held many leadership positions: program director of the UW General Clinical Research Center from 1996-2004; acting head of the Division of Metabolism, Endocrinology and Nutrition from 1994 to 1996; head of the division's fellowship training program from 1997 to 2007; and head of the lipid clinics at UW Medical Center and Harborview Medical Center. In 2005, he received the Lifetime Achievement Award from the UW General Clinical Research Center, which he directed for eight years. Brunzell’s research focused on genetic and acquired disorders of triglyceride and cholesterol metabolism, diabetes, obesity and cardiovascular disease, and rare genetic disorders of lipoprotein metabolism.

Alexander Clowes, UW professor of surgery in the Division of Vascular Surgery, died July 7 after a long battle with brain cancer. He was 68. Clowes spent nearly 35 years at UW and devoted his entire career to the study of vascular biology, laying the foundation for a generation of future basic science researchers. He served as acting chair of the Department of Surgery from 1992 to 1993 and chief of the Division of Vascular Surgery from 1995 to 2007. Throughout his UW years, his focus remained on his research, the training of physicians for careers in academic vascular surgery, and the care of patients with vascular diseases. He was a role model and mentor to generations of young physicians.
Thank You

As a premier medical school dedicated to improving the health of all people in our state and beyond, we value and depend on continued collaboration and partnership with the Washington State Medical Association. We could not do our work without you. Your advocacy, healthcare policy promotion, participation and interest in our teaching program and work together in other areas to improve health for all people have a profound impact.

Please let me know if you would like additional information about any of the topics discussed in this report or about topics not covered. You can contact me directly at pramsey@uw.edu. In addition, if you have comments, suggestions, concerns or ideas related to the UW School of Medicine, please let me know. Thank you very much for your outstanding work on behalf of improving health.

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
### Academic Year 2015 – 2016
#### Autumn, Winter and Spring Quarters
##### Phase 1: Foundation

<table>
<thead>
<tr>
<th>Length</th>
<th>Block</th>
<th>Content</th>
<th>Integrated with Course Content</th>
<th>Themes**</th>
</tr>
</thead>
<tbody>
<tr>
<td>7 weeks</td>
<td>2 weeks</td>
<td>Molecular &amp; Cellular Basis of Disease</td>
<td>Human Form &amp; Function* Pathology/ Histology Pharmacology</td>
<td>Foundations of Clinical Medicine***</td>
</tr>
<tr>
<td>6 weeks</td>
<td>1 week</td>
<td>Invaders &amp; Defenders</td>
<td>Human Form &amp; Function* Pathology/ Histology Pharmacology</td>
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<tr>
<td>10 weeks</td>
<td>1 week</td>
<td>Circulatory Systems (CPR)</td>
<td>Human Form &amp; Function* Pathology/ Histology Pharmacology</td>
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<tr>
<td>1 week</td>
<td>3 weeks</td>
<td>Electives and Remediation, if needed</td>
<td>Human Form &amp; Function* Pathology/ Histology Pharmacology</td>
<td></td>
</tr>
<tr>
<td>3 weeks</td>
<td>3 weeks</td>
<td>Blood &amp; Cancer</td>
<td>Human Form &amp; Function* Pathology/ Histology Pharmacology</td>
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</tr>
<tr>
<td>6 weeks</td>
<td>2 weeks</td>
<td>Energetics &amp; Homeostasis</td>
<td>Human Form &amp; Function* Pathology/ Histology Pharmacology</td>
<td></td>
</tr>
</tbody>
</table>

- **Themes will include:** Lifelong Learning, Scholarship/Scientific Discovery, Health Equity, Diversity, Population Health, Ethics and Professionalism, Communication/Interprofessionalism, Quality and Safety and Primary Care.

*HFF will include: Dissection, Prosection, Ultrasound, Embryology, Imaging, Surface Anatomy

**Themes will include:** Lifelong Learning, Scholarship/Scientific Discovery, Health Equity, Diversity, Population Health, Ethics and Professionalism, Communication/Interprofessionalism, Quality and Safety and Primary Care.

***Foundations of Clinical Medicine will include:** Primary Care Practicum, Clinical Skills and College Tutorials.
### Academic Year 2016-2017

**Autumn and Winter Quarters**

**Phase 1: Foundation**

<table>
<thead>
<tr>
<th>Length</th>
<th>10 weeks</th>
<th>9 weeks</th>
<th>5 weeks</th>
<th>2 weeks</th>
<th>12 Weeks</th>
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#### Block

<table>
<thead>
<tr>
<th>Content</th>
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<tbody>
<tr>
<td>Summer Experience</td>
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<tr>
<td>Break (8/22 – 9/2, 2016)</td>
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</table>

<table>
<thead>
<tr>
<th>Integrated with Course Content</th>
</tr>
</thead>
<tbody>
<tr>
<td>4 wks RUOP and 6 wks vacation OR 10 wks MSRTOP OR 6 wks Global Health, 4 wks vacation</td>
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#### Block Details

<table>
<thead>
<tr>
<th>10 weeks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mind, Brain &amp; Behavior</td>
</tr>
<tr>
<td>- Neuroscience/Neurology</td>
</tr>
<tr>
<td>- Musculoskeletal System</td>
</tr>
<tr>
<td>- Neurosurgery/Trauma</td>
</tr>
<tr>
<td>- Sensory Systems</td>
</tr>
<tr>
<td>- Psychiatry</td>
</tr>
<tr>
<td>- Anesthesia/pain management</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>9 weeks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Human Form &amp; Function*</td>
</tr>
<tr>
<td>- Pathology/ Histology Pharmacology</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>5 weeks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lifecycle &amp; Reproduction</td>
</tr>
<tr>
<td>- Reproductive System</td>
</tr>
<tr>
<td>- Developmental stages of life</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>2 weeks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Themes**</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>12 Weeks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Consolidation and Transition</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>12 Weeks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Winter Break (12/16-12/14, 2016)</td>
</tr>
</tbody>
</table>

#### Themes

**Themes** will include Lifelong Learning, Scholarship/Scientific Discovery, Health Equity, Diversity, Population Health, Ethics and Professionalism, Communication/Interprofessionalism, Quality and Safety and Primary Care.

**Themes** will include Lifelong Learning, Scholarship/Scientific Discovery, Health Equity, Diversity, Population Health, Ethics and Professionalism, Communication/Interprofessionalism, Quality and Safety and Primary Care.

### Foundations of Clinical Medicine

**Foundations of Clinical Medicine** will include: Primary Care Practicum, Clinical Skills and College Tutorials.

---

*HFF will include: Dissection, Prosection, Ultrasound, Embryology, Imaging, Surface Anatomy*

**Themes will include Lifelong Learning, Scholarship/Scientific Discovery, Health Equity, Diversity, Population Health, Ethics and Professionalism, Communication/Interprofessionalism, Quality and Safety and Primary Care.**

***Foundations of Clinical Medicine will include: Primary Care Practicum, Clinical Skills and College Tutorials.***

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V2.0
Proposed UW School of Medicine Curriculum, Phase 2: Patient Care

<table>
<thead>
<tr>
<th>Length</th>
<th>Block</th>
<th>*Clinical Clerkships</th>
<th>Length</th>
<th>Block</th>
<th>*Clinical Clerkships</th>
<th>Length</th>
<th>Block</th>
<th>*Clinical Clerkships</th>
</tr>
</thead>
</table>

*Clinical clerkships include Family Medicine, Internal Medicine, Obstetrics-Gynecology, Pediatrics, Psychiatry, and Surgery. Neurology, Advanced Care of the Undiagnosed Patient, Advanced Inpatient Care, and Advanced Outpatient Care may be taken during the six week elective block in the Patient Care Phase if prerequisites have been met.
### Proposed UW School of Medicine Curriculum, Phase 3: Explore and Focus


<table>
<thead>
<tr>
<th>Length</th>
<th>Block</th>
<th>Weeks</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>4 Weeks</td>
<td>Advance Inpatient Care (Sub-Internship)</td>
<td>3/26–4/20, 2018</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Advanced Care of the Undiagnosed Patient</td>
<td>4/23–5/18, 2018</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Advanced Outpatient Care</td>
<td>5/21–6/15, 2018</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>36 weeks 6/25–3/29, 2019</td>
<td>*Clinical Electives:</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>• Five 4-week blocks of required electives.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>• Additional time for research, board preparation, residency interviews, etc.</td>
</tr>
<tr>
<td>4 Weeks</td>
<td>Transition To Residency</td>
<td>4/1–4/26, 2019</td>
<td></td>
</tr>
</tbody>
</table>

The order of the blocks are interchangeable with the exception of Intersession and Transition to Residency.