The eye is the window of the human body through which it feels its way and enjoys the beauty of the world.

Leonardo da Vinci
AS WE RING OUT 2011 and ring in 2012, our Department continues to grow and thrive. Driven by our mission to eliminate suffering from eye disease in Seattle and throughout the world, we saw continued progress and growth in our clinical, research, and teaching activities this past year. Within the pages of this annual report (our first such report in many years!), you will have the opportunity to read about many of these endeavors. In our clinical mission, we saw continued growth of our practices at the UW Medicine Eye Institute (which completed its second year of operation), Harborview Medical Center, Seattle Children’s Hospital, the Puget Sound VA ophthalmology service, and University of Washington Medical Center. Our faculty and trainees continue to give outstanding care for all manner of eye conditions. Our patient satisfaction levels are in the ‘top box’ nationally for academic ophthalmology practices.

We continue to attract some of the best trainees in the country to Seattle for residency and fellowship training in ophthalmology. Our request for expansion of our residency – from four to five residents per year – was approved this past year and we will be offering five slots in the match for the 2013 entering class. We also had approval this year to open fellowships in vitreoretinal disease, pediatric ophthalmology, and uveitis.

Our faculty has continued to grow. We are delighted to welcome Holly Chang, MD (Assistant Professor, Oculoplastics), Mike Mustari, PhD (Research Professor), and Ricky Wang, PhD (Professor of Bioengineering and Adjunct Professor of Ophthalmology) to the department. The department has a number of ongoing searches as we continue to expand to meet the increased incidence of ocular disease.

For the fourth straight year the department saw growth in its research portfolio. Through the leadership of Jay and Maureen Neitz, PhD, we saw renewal of our Core vision research grant. We also saw groundbreaking on the South Lake Union 3.1 building which will house the Vision Science Center once completed in 2013.
Message from the Chair continued

All of these endeavors would not be possible without terrific support from the community. We were thrilled this year with the outpouring of support for the named professorship in Dr. Robert Kalina’s honor. Bob has served this department for over 40 years and remains a paragon of professional excellence. We were also delighted to name Dr. Avery Weiss as the inaugural Dr. Roger H. Johnson and Angie Karalis Johnson Term Professor in Pediatric Ophthalmology. This past year the Department received generous bequests from the estates of departed friends Helen Ness and Mort Lauridsen. We were also very happy to launch our community advisory board in 2011. This group of friends of our department is dedicated to helping us find support for our academic programs through the years ahead.

Thank you for your interest in our programs. Please know we are at your service. From everyone in UW’s Department of Ophthalmology, best wishes for a healthy and happy 2012.

Russell N. Van Gelder, MD, PhD
Boyd K. Bucry Professor and Chair, Ophthalmology

An Institute for Outstanding Care

THE UW MEDICINE EYE INSTITUTE’S mission is simple: to eliminate suffering from eye disease. Eye Institute physicians include nationally renowned leaders in the field of eye care, with many listed in the Best Doctors in America. As one of the region’s premier eye and vision science centers, the Eye Institute encompasses all specialties, including retina, cornea, glaucoma, and oculoplastics with access to the latest treatments that provide patients with the best outcomes, all housed in a state of the art facility.

“Sight is a big part of the joy of being alive.”

Medical discovery is a critical part of the Eye Institute’s mission. Researchers, many of whom are also clinicians, seek to understand the healthy and diseased eye, with the ultimate goal of eliminating suffering from eye disease. The Institute brings together multi-disciplinary research faculty from nine departments and three schools at the UW.

Comprehensive patient care also extends to trauma and injury. Harborview Medical Center is one of the nation’s leading hospitals and the only Level I adult and pediatric trauma and burn center serving Washington, Wyoming, Alaska, Montana and Idaho (WWAMI). The Eye Institute has one of the nation’s only dedicated ophthalmological trauma teams at Harborview Medical Center.

These facilities not only expand and enhance patient-care options and enhance discovery, they also provide the training ground for future ophthalmologists. Currently, the Department of Ophthalmology admits four residents each year to its three-year residency program, with almost 400 applicants for these positions. The department will soon increase its number of resident positions, given the School of Medicine’s extensive service area as the sole academic ophthalmology program for the 11.5 million people living in the five WWAMI states.

Dr. Russell Van Gelder, Department Ophthalmology Chair and Director UW Medicine Eye Institute says, “Sight is a big part of the joy of being alive.” Eye diseases such as macular degeneration, glaucoma, cataract, and diabetic eye disease become more common as people age. An important part of the Eye Institute’s mission restoring quality of life for the ageing population.
Research

VISION RESEARCH IS FLOURISHING AT UW MEDICINE. Researchers at the University of Washington hold more than 40 National Institutes of Health grants related to vision, making it one of the country’s leading institutions engaged in vision research.

Eye Institute researchers collaborate with colleagues who are experts in fields as diverse as engineering, psychology, physiology and biophysics, biological structure and genomics. As an international computer science and biotech center, Seattle offers the opportunity for UW Medicine to join forces with outstanding scientists from the private sector.

For 34 consecutive years, the University of Washington has held a National Eye Institute Vision Core Grant, which is administered through the Department of Ophthalmology. The Core facilities serve to bring together researchers from across the university. The university also holds a T32 training grant from the NIH for training the next generation of vision scientists.

Efforts to reverse blindness using artificial cornea

Dr. Tueng Shen, Northwest Lions Foundation associate professor of ophthalmology in the UW School of Medicine (and an adjunct associate professor in bioengineering), is one of a small number of surgeons in the world trained to use the artificial cornea, or keratoprosthesis. Together with Dr. Brian Oris, assistant professor in electrical engineering, and Dr. Babak Parviz, associate professor in electrical engineering, Dr. Shen has designed an artificial cornea embedded with microelectronics. The half-millimeter eye chip, equipped with a radiofrequency antenna, is designed to measure intraocular pressure – crucial to eye health, and achieve continuous wireless transmission, allowing it to communicate with an ophthalmologist anywhere.

Most of Dr. Shen’s patients are from the northwest region, but she hopes to one day help more of the estimated 12 million people who have some form of corneal blindness, many in the developing world, where the health-care infrastructure makes corneal transplant and post-operative care extraordinarily challenging. “Our goal is to create high-tech and low-cost solutions to treat blindness world-wide.”

“Our goal is to create high-tech and low-cost solutions to treat blindness world-wide.”

Dr. Tueng Shen
Northwest Lions Foundation associate professor of ophthalmology
**Gene therapy**

Vision scientists Jay and Maureen Neitz recently published the first successful use of gene therapy in the primate eye to correct color blindness. This work may lead to the alleviation of many hereditary- and age-related eye conditions. The Neitzes began investigating color blindness, a group of genetic mutations that result in missing or damaged photoreceptors in the retina. Color blindness is the most common genetic condition in the world, affecting 4% of the population (and 8% of all men). They theorized that replacing the defective genes with healthy ones might lead to normal vision. All squirrel monkeys are red-green color blind. Using a custom-designed, harmless virus containing the missing color pigment gene, the Neitzes able to confer full color vision to two squirrel monkeys within weeks of injection of the genes into the eye. This same technology may someday be applied to a large variety of genetic eye conditions.
New treatment to prevent nearsightedness

The Neitzes have also been at work on a method to prevent nearsightedness, or myopia. Myopia is extremely common, affecting nearly 1/3 of Americans and up to 90% of the population in some parts of Asia. In their research, the Neitzes discovered that myopia can be caused by defects in the red and green photoreceptors that result from mutations in the visual pigment genes. By knowing the details of the exact mutation present in an individual, they are able to predict the severity of the nearsightedness. They hypothesize that mutations in the red and green cone photopigment genes are the single major genetic cause of common myopia and are in the process of testing this idea further. Light stimuli such as those from computer monitors, tablet PCs, video games and even artificial lighting that is particularly rich in red, appear to unbalance the signals from the red and green cones in a way similar to what happens in people with photopigment mutations. Individuals with certain mutations may be especially susceptible.

The Neitzes’ research suggests that it may be possible to prevent nearsightedness by having children wear special glasses that work to balance out differences in the responses of the cones caused by mutations. The initial trials of these glasses are very promising. Preventative glasses or contacts could be started before the onset of nearsightedness. The hope is that the treatment would prevent nearsightedness from developing, and once the eye is fully grown at the end of adolescence the treatment could be discontinued. The patient would be free of nearsightedness and its complications for the rest of their lifetime.

Jennifer Chao, MD, PhD

Glasses with special tinted lenses to prevent nearsightedness.

Stem cell therapies

In addition to replacing defective genes in photoreceptors, UW Medicine Eye Institute researchers are also attempting to replace photoreceptors to restore vision to people with retinal degeneration. Dr. Jennifer Chao and colleagues at the UW Institute for Stem Cell and Regenerative Medicine are planning the first clinical trials with these new treatments - therapies using stem cells to restore vision for patients with age-related eye diseases, such as cataracts, macular degeneration, diabetic retinopathy and glaucoma.

Jennifer Chao, MD, PhD

Slowing the progression of macular degeneration

Dr. Chao and her colleagues are using stem cells derived from a patient’s own skin to discover new and existing drugs that might slow the progression of macular degeneration. By screening drugs that already exist and are FDA approved, they hope to identify a low-cost widely-available drug that could extend a person’s vision throughout the course of their lifetime. They have also developed a technique to grow new human retinal cells using stem cells. In early tests, these new retinal cells showed evidence of restoring some visual function, providing hope that one day stem cell technology will restore sight to people who have lost it to diseases such as retinitis pigmentosa and macular degeneration.
**Patient Care**

Patient care forms the triumvirate along with research and education in achieving the Department of Ophthalmology’s mission of eliminating suffering from eye diseases in our community and world-wide. Our providers see over 40,000 patients annually and perform approximately 2,500 surgical procedures. Full subspecialty coverage includes ocular cancer, ocular inflammatory disease, and hereditary retinal disease.

**Best Doctors**

We are honored to be recognized locally and nationally

**“Best Doctors in America”**

- Jennifer Chao, MD, PhD
  Vitreoretinal Disease and Surgery

- Philip P. Chen, MD
  Professor and Chief of Ophthalmology
  UW Medical Center and Harborview Medical Center

- Courtney Francis, MD
  Neuro-ophthalmology, Strabismus

- Robert Kalina, MD
  Professor Emeritus
  Vitreoretinal Disease and Surgery, Oncology and Intraocular Tumors

- James L. Kinyoun, MD
  Vitreoretinal Disease and Surgery

- Todd Klesert, MD, PhD
  Vitreoretinal Disease and Surgery, Oncology and Intraocular Tumors

- Raghu Mudumbai, MD
  Glaucoma, Neuro-Ophthalmology, Strabismus

**“Top Doctors - Seattle”**

- Russell N. Van Gelder, MD, PhD
  Boyd K. Bucey Memorial Chair
  Director, Retina Surgery Center
  Retina Surgery, Cornea and External Disease

- Avery H. Weiss, MD
  Division Chief, Ophthalmology
  Seattle Children’s Hospital
  Professor of Ophthalmology, University of Washington School of Medicine

- Michael Wu, MD
  Cornea and External Disease

- Jennifer Yu, MD, PhD
  Comprehensive Ophthalmology

**The Van Gelder lab continues its basic and clinical research in retinal and inflammatory diseases**

In the area of uveitis (ocular inflammatory disease) the lab was delighted to publish a major paper in Genome Research detailing the development of a new potential diagnostic technique for the detection of infections. This technique, called Biome Representational in Silico Karyotyping, or BRISK for short, uses state-of-the-art high throughput DNA sequencing to find all the possible infectious agents present in any sort of biopsy. The lab has been very busy this year applying this technique to various types of uveal disease. In addition, the lab has made significant strides in developing a new animal model of uveitis (similar to the human disease sarcoidosis). This model will be highly useful in screening for new drugs for treating uveal inflammation.

The other part of the lab has continued its work on ‘non-visual photoreception’ in the eye. The group has made excellent progress this year in characterizing a novel photopigment of the inner retina (melanopsin) that may be responsible for helping the internal circadian body clock reset to new time zones (i.e. jet lag); has developed a new assay for studying the circadian clock within the eye; and has made good progress in helping to develop new drugs that confer light sensitivity to parts of the retina, which may be useful in the treatment of blindness someday.
Our Providers

Comprehensive

Parisa Taravati, MD
Dr. Taravati is an assistant professor and an attending physician at the UW Medical Center. She is a clinician educator. Her primary clinical interest is comprehensive ophthalmology.

Patient Care Philosophy
She believes in educating her patients on their eye conditions and allowing them to actively participate in their medical care.

Scope of Care
Dr. Taravati is a comprehensive ophthalmologist who treats patients through both medical and surgical procedures, as well as in-office exams.

Deborah L. Lam, MD
Dr. Lam is a comprehensive ophthalmologist and UW assistant professor. She is an attending physician at the Veterans Affairs Puget Sound Healthcare system.

Patient Care Philosophy
She believes the foundation of the patient-physician relationship is communication. Her care is focused on the needs of her patients and their families.

Scope Of Care
Diagnosis and treatment of a comprehensive range of eye conditions, including such entities as cataract, glaucoma, diabetic retinopathy, macular degeneration, ocular surface diseases and eye trauma.

Jennifer J. Lee, MD
Dr. Lee is a UW clinical instructor of ophthalmology and an attending physician of ophthalmic surgery at 4 West Clinic at Harborview Medical Center.

Patient Care Philosophy
To treat each patient as if he or she were a best friend asking for help.

Scope Of Care
Comprehensive medical care of the eye and surgical care of the anterior segment.

Thellea Leveque, MD, MPH
Dr. Leveque is a board certified comprehensive ophthalmologist and an attending physician at the UW Eye Institute at Harborview Medical Center. Dr. Leveque is a UW acting assistant professor. In keeping with her belief that a career in medicine requires a lifetime of learning, this year she is pursuing additional training in uveitis with the department chair.

Patient Care Philosophy
Patient education and participation in care is vital to eye health. “I will do everything I can to explain your eye condition in a way that makes sense to you. There is no such thing as a dumb question!”

Scope of Care
All straightforward and complex medical conditions of the eye, including dry eye and related diseases, glaucoma, mild to moderate macular degeneration, ocular health in systemic disease (including diabetes), and trauma.

Jennifer T. Yu, MD, PhD
Dr. Yu is a UW clinical assistant professor and an attending physician at 4 West Clinic at Harborview Medical Center. Her clinical interest is in comprehensive eye care including dry eyes, blepharitis, cataracts and cataract surgery, glaucoma, diabetes in the eye and macular degeneration.

Patient Care Philosophy
She believes good patient care starts with listening to the patient and addressing his or her concerns. She also believes that health care is a partnership between the physician and the patient. This involves patient education and helping the patient make informed decisions.”

Scope Of Care
She is a comprehensive ophthalmologist who diagnoses and treats a wide range of eye conditions such as dry eye, cataracts and glaucoma.

Cornea and External Disease

Tueng T. Shen, MD, PhD
Dr. Shen is the Northwest Lions Foundation associate professor of ophthalmology and an adjunct in bioengineering. She is an attending physician at the UW Eye Institute at Harborview Medical Center and UW Medical Center. Dr. Shen directs the Refractive Surgery Center and specializes in refractive surgery, cataract surgery and medical and surgical management of corneal disorders. She established this region’s artificial cornea transplant program to treat severe corneal blindness.

Patient Care Philosophy
Dr. Shen is committed to delivering the best eye care possible by providing the most advanced treatment options and by developing better technologies to restore vision for patients with challenging corneal conditions. She strongly believes that patients deserve a physician who listens, keeps them well-informed and is a partner in accomplishing the best treatment plan customized to each patient’s needs.

Scope Of Care
Refractive surgeries (laser and non-laser surgeries) to minimize refractive errors and reduce dependence on glasses or contact lenses, cataract surgeries, corneal surgeries (PK, DSEK, artificial cornea surgeries, conjunctival surgeries, stem cell transplant surgeries) and medical management of all areas of corneal diseases.

Michael C. Wu, MD
Dr. Wu is an associate professor of ophthalmology and an attending physician at the UW Eye Institute at Harborview Medical Center. He also serves as the director of medical student education in ophthalmology at the UW. As a cornea specialist, Dr. Wu has advanced training in the surgical and medical management of corneal diseases, as well as in refractive surgery.

Patient Care Philosophy
To provide caring, thorough, attentive, and detailed treatment to each patient, utilizing current treatment techniques, sound medical knowledge, and advanced surgical procedures.

Scope Of Care
Ophthalmology, with subspecialty practice interest in cataract surgery, corneal transplantation, corneal surgeries, and diseases of the cornea.

Glaucoma

Tueng T. Shen, MD, PhD
Dr. Shen is the Northwest Lions Foundation associate professor of ophthalmology and an adjunct in bioengineering. She is an attending physician at the UW Eye Institute at Harborview Medical Center and UW Medical Center. Dr. Shen directs the Refractive Surgery Center and specializes in refractive surgery, cataract surgery and medical and surgical management of corneal disorders. She established this region’s artificial cornea transplant program to treat severe corneal blindness.

Patient Care Philosophy
Dr. Shen is committed to delivering the best eye care possible by providing the most advanced treatment options and by developing better technologies to restore vision for patients with challenging corneal conditions. She strongly believes that patients deserve a physician who listens, keeps them well-informed and is a partner in accomplishing the best treatment plan customized to each patient’s needs.

Scope Of Care
All types of glaucoma and cataracts, particularly complex glaucoma and cataract surgery.

Raghu Mudumbai, MD
Dr. Mudumbai is an associate professor of ophthalmology and an attending physician at the UW Medicine Eye Institute at Harborview Medical Center. Dr. Mudumbai specializes in glaucoma, neuro-ophthalmology, and treats patients with multiple sclerosis.

Patient Care Philosophy
He takes a patient-centered approach and is excited to be practicing at a time when recent advances in multiple sclerosis treatment offer real hope to patients.

Scope Of Care
Glaucoma, Multiple Sclerosis, Strabismus

Mark Anthony Slabaugh, MD
Dr. Slabaugh is a UW assistant professor of ophthalmology and attending physician at the UW Medicine Eye Institute at Harborview. He is a board-certified ophthalmologist with subspecialty training in the medical and surgical management of glaucoma. He has a particular interest in complicated glaucoma and cataract surgery, as well as management of uveitic glaucoma.

Patient Care Philosophy
His goal is to prevent blindness caused by glaucoma.

Scope Of Care
Glaucoma, cataracts, cataract surgery.
Nancy Ross, OD  
Dr. Ross is a UW teaching associate and primary optometrist for the refractive Surgery Center at UW Medical Center.

**Patient Care Philosophy**  
Dr. Ross believes in giving patients a thorough explanation and providing them with the tools to be proactive in their care. She feels fortunate to work with an outstanding team at the UW that synchronizes care to provide patients with a seamless experience.

**Scope Of Care**  
Dr. Ross sees patients with refractive surgery needs, including LASIK, PRK, and cataract patients, post-operative follow-up and general eye exams for past refractive surgery patients.

James Toop, O.D.  
Dr. Toop is a primary care optometrist and UW teaching associate with an emphasis on contact lens fitting. He sees patients of all ages.

**Patient Care Philosophy**  
All patients receive the full benefit of care without discrimination. Patients will be treated courteously and will be seen in a timely fashion if at all possible.

**Scope Of Care**  
Complete eye exams, with referral to appropriate specialists as needed; and fitting of soft and hard contact lenses for cosmetic or therapeutic reasons.

Courtney Francis, MD  
Dr. Francis is an assistant professor of ophthalmology and an attending physician at the UW Eye Institute at Harborview Medical Center. Dr. Francis is a clinician educator with primary clinical interest in neuro-ophthalmology. She also cares for adult patients with strabismus.

**Patient Care Philosophy**  
Dr. Francis enjoys educating her patients on their diagnoses and making them active participants in their medical care.

**Scope Of Care**  
Dr. Francis specializes in neuro-ophthalmology. She treats patients with optic neuropathies, cranial nerve palsies, idiopathic intracranial hypertension, tumors involving the visual pathways, in addition to patients with systemic diseases such as multiple sclerosis, myasthenia gravis and Gräve’s disease. She offers both medical and surgical treatments for adult strabismus.

James C. Orcutt, MD, PhD  
Dr. Orcutt is Chief of Ophthalmology, Office of Patient Care Services at the Veterans Health Administration, Department of Veterans Affairs, and a UW professor of ophthalmology and adjunct professor of otolaryngology, head and neck surgery. His interests include neuro-ophthalmology, orbital disease and oculoplastic surgery.

**Patient Care Philosophy**  
He is a strong proponent of team-based care, bringing together the appropriate individuals to address a patient’s problems. He is patient-centered in his approach to clinical care.

**Scope Of Care**  
Dr. Orcutt is involved in the scope of services provided to veteran patients and has oversight responsibilities for surgical care delivered to veterans in Alaska, Oregon, Washington and Idaho. In addition, he serves as the Veterans Affairs National Program Director for Ophthalmology and as such has oversight responsibilities across the United States.

A.J. Amadi, MD  
Dr. Amadi is a UW clinical assistant professor of ophthalmology and an attending physician at 4 West Clinic at Harborview Medical Center.

**Patient Care Philosophy**  
Patients always come first.

**Scope of Care**  
Orbital and ophthalmic/facial plastic surgery.

Holly Chang, MD  
Dr. Chang is a UW assistant professor of ophthalmology and an attending physician at the UW Eye Institute at Harborview Medical Center. She cares for patients with plastic surgery disorders affecting the eyelids, nasolacrimal system, orbit, face, and neck.

**Patient Care Philosophy**  
As an ophthalmic pathologist as well as orbital and oculofacial plastic surgeon, Dr. Chang understands the microscopic basis of diseases, but approaches each patient as individuals with unique reconstructive and aesthetic goals.

**Scope of Care**  
Dr. Chang provides medical and surgical care for patients with all forms of ptosis (droopy eyelids and eyebrows), nasolacrimal duct disease, orbital tumor/inflammation, Graves disease, eye socket abnormalities, facial skin cancers, and facial trauma. Cosmetic procedures include botulinum toxin injections, periocular and facial synthetic and fat fillers, chemical and laser skin resurfacing, eyebrow and eyelid lifts, and face/neck rejuvenation.

Robert E. Kalina, MD, Professor Emeritus  
Dr. Kalina is a UW professor emeritus and past chair of the UW Department of Ophthalmology. He is past president of UW Physicians, director emeritus of the American Board of Ophthalmology and a recipient of the Life Achievement Honor Award of the American Academy of Ophthalmology.

**Patient Care Philosophy**  
Dr. Kalina thoroughly enjoys meeting patients and trying to help them solve their health problems.

**Scope Of Care**  
Intraocular tumors and retinal diseases, particularly retinal degenerations; inherited retinal diseases; and retinopathy of prematurity.

Todd Klesert, MD, PhD  
Dr. Klesert is an acting assistant professor and an attending physician at the UW Eye Institute at Harborview Medical Center. He is a clinician educator with primary clinical interest in vitreoretinal disease and surgery. He also cares for patients with intraocular tumors.

**Patient Care Philosophy**  
Dr. Klesert’s goal is to provide state-of-the-art medical and surgical care of the eye, based on our best current medical evidence, with a foundation of compassion and effective patient communication.

**Scope of Care**  
Dr. Klesert provides care through medical treatments, in-office procedures, and surgery.

Optometric Services

Nancy Ross, OD  
Dr. Ross is a UW teaching associate and primary optometrist for the refractive Surgery Center at UW Medical Center.

**Patient Care Philosophy**  
Compassion and individual attention are critical in providing patients with highest standards of comprehensive eye care.

**Scope Of Care**  
Dr. Ross believes in giving patients a thorough explanation and providing them with the tools to be proactive in their care. She feels fortunate to work with an outstanding team at the UW that synchronizes care to provide patients with a seamless experience.
**Pediatric Ophthalmology and Strabismus**

**Francine M. Baran, MD**  
Dr. Baran is a UW clinical assistant professor of ophthalmology and a member of the surgical faculty team at Seattle Children’s.  

**Patient Care Philosophy**  
Her daily commitment is to providing children a comfortable and friendly environment so they feel at ease during eye exams. She understands that an unfamiliar environment can be intimidating; so she tries to make the whole experience as much fun as possible, which makes each day an exciting opportunity to help young people.

Good vision is essential for proper physical and emotional development, as well as educational progress in growing children. She aims to empower her adult patients to understand their medical condition and take an active role in their care. She also believes that listening is the first step in treating a patient’s medical condition.  

**Scope Of Care**  
Pediatric Ophthalmology, Strabismus.

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**Avery H. Weiss, MD**  
Dr. Avery H. Weiss, is chief of the division of ophthalmalogy at Seattle Children’s Hospital, the Roger H. & Angie Karalis Johnson professor in pediatric ophthalmology, and professor of ophthalmalogy at the University of Washington School of Medicine. His clinical interests include visual disorders, eye movement abnormalities, cataract and glaucoma, retinoblastoma and orbital tumors, ocular malformations and ophthalmological manifestations of systemic diseases.

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**Refractive Surgery**

**Tueng T. Shen, MD**  
See Dr. Shen’s profile information under Cornea and External Disease.

**Medical and Surgery Retina**

**Jennifer Chao, MD, PhD**  
Dr. Chao is an Assistant Professor in the Department of Ophthalmalogy. She is a clinician scientist who specializes in diseases of the retina, vitreous, and macula.

**Patient Care Philosophy**  
Dr. Chao is dedicated to bringing the highest quality of care to her patients by offering the most up-to-date diagnostic and treatment options to her patients. She enjoys partnering with her patients in their care, listening to them, and keeping them informed of the latest in current research regarding challenging retinal diseases.

**Scope of Care**  
Dr. Chao offers both medical and surgical treatments for vitreoretinal diseases. She has a particular interest in patients with hereditary retinal degenerations.

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**Medical and Surgery Retina**

**Richard S. Munsen, MD**  
Dr. Munsen is a UW clinical associate professor of ophthalmalogy. His sub-specialty is diseases and surgery of the retina and vitreous.

**Patient Care Philosophy**  
Dr. Munsen treats all patients as if they were family members. The patient always comes first.  

**Scope Of Care**  
His expertise includes consultation for all types of retinal, vitreous and macular problems, as well as any laser treatment, injections or surgery for these problems.

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**Pediatric Ophthalmology and Strabismus**

**Erin P. Herlihy, MD**  
Dr. Herlihy is a UW assistant professor of ophthalmalogy and a physician at Seattle Children’s.  

**Patient Care Philosophy**  
A fun and nonthreatening environment is essential in engaging children and their families to participate in their eye care. Children are not just little adults.

**Scope Of Care**  
Pediatric and adult strabismus, amblyopia, nasolacrimal disorders, refractive error in children, pediatric cataracts, pediatric glaucoma and systemic diseases that affect the eyes.

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**Refractive Surgery**

**Todd Klesert, MD, PhD**  
See Dr. Klesert’s profile information under Oncology and Ocular Tumors.
Community Advisory Board

As an academic medical center we endeavor to promote a culture of education for members of our community, as well as our faculty and staff. We believe that community members are integral to a reciprocal learning environment, and to our success as teachers, learners, and healers. This fall we invited diverse members of the community to form a Community Advisory Board for the purposes of raising awareness about our programs and to introduce new people to the UW Medicine Eye Institute; to broaden our outreach; to be informed about our major research projects; to provide advice on important issues and participate in events; and to work on projects that raise money for research and patient care. Our 2011-2012 Community Board members are:

Claire Angel
Claire has been a successful optometrist in private practice for 15 years, focusing on corneal disease. She is the Goodwill Ambassador for Sightlife Corneal Eye Bank and has helped to build infrastructure for corneal eyebanking around India. Claire is the co-chair of the Henry 2012 Benefit is also on the board of the Seattle Symphony.

Mark Bathum
Mark was born and raised in Seattle, graduated from the University of Washington in 1981 and received his MBA from UCLA in 1986. Mark has worked for a number of large and small firms in marketing and management and has lived and worked in Europe, Los Angeles, Portland, Detroit and Seattle. Mark was diagnosed with the most common form of dominant retinitis pigmentosa in 1986. After a 30 year hiatus from alpine ski racing, Mark began competing in visually impaired ski racing in 2008 and won a silver medal in the men's downhill at the 2010 Vancouver Paralympics.

Barbara G. Bedell
Barbara has lived on Orcas Island full-time since 2001. She holds a Master's Degree in English Literature with a concentration in Medieval Literature and taught for over twenty years at Morningside College in Sioux City, Iowa, before moving to the Northwest. Her late husband Bruce was an ophthalmologist and consequently, she is interested in supporting the University of Washington's Department of Ophthalmology in numerous ways, including outreach programs on Orcas Island.

Joan Bergy
Joan holds a BS from Michigan State University, as well as an MPA and Executive MBA Certificate from the University of Washington. Some of her key positions have included Consumer Education Specialist at the Food and Drug Administration; Director of the Consumer Product Safety Commission; and Consumer Advisor, US Section, International Fisheries Commission (US, Canada, Japan).

Residents rotate through the University of Washington Medical Center (UWMC), Harborview Medical Center (HMC), Seattle Children's Hospital (SCH) and Puget Sound VA Medical Center (VA).

Education

Resident Physicians

As the baby-boomers enter their Medicare years, the number of individuals who are at risk for blinding eye diseases is increasing rapidly. It will take more ophthalmologists practicing more efficiently and with better treatments to meet this demand. The Ophthalmology Residency Program at the University of Washington is designed to develop clinicians well trained in medical and surgical ophthalmology prepared to excel as community practitioners, or to follow a career track that will lead them to academic medicine or biomedical research.

Faculty work closely with the graduate staff and involve residents in all aspects of patient care. There is no ‘private’ practice at the Eye Institute; patients are evaluated by both residents and faculty members. Residents assist at surgery and are trained in surgical technique by all members of the faculty. The department will soon increase its number of resident positions, given the School of Medicine’s extensive service area as the sole academic ophthalmology program for the 11.5 million people living in the five WWAMI states.

Residents rotate through the University of Washington Medical Center (UWMC), Harborview Medical Center (HMC), Seattle Children’s Hospital (SCH) and Puget Sound VA Medical Center (VA).
Fred Minifie is professor emeritus of the Speech and Hearing Sciences Department at the University of Washington where he served as department chairman. He has been an active member of the University Lions Club for 33 years where he has raised money for support of patients with eye diseases, the Lions Eye Bank, the UW Eye Institute and the Boekeel Hearing Research Institute at the University of Washington. For the past four years he has chaired Lions C.A.R.E programs that raise money to support needy families in Bolivia and in Ecuador.

Richard S. Munsen, JR, MD
Dr. Munsen holds the position of Clinical Associate Professor of Ophthalmology at the University of Washington and his specialty is in vitreoretinal disease and surgery. He received his MD with honors from the University of Iowa in 1972. Dr. Munsen was in private practice at Swedish Hospital 1980-2000, and was the founding partner of Vitreoretinal Associates in Seattle. Dr. Munsen is a recipient of the Best Doctors in America award.

Don Sackrider
Don’s interest in eye research began with Dr. Richard Munsen’s treatment of his macular problems. In his career as an airline pilot he was required to pass a physical exam twice yearly, which gave him good reason to pay attention to his health, and especially his eyes. Don enjoys spending as much time outdoors as possible.

Suzanne Ragen
Suzanne, who has also served on UW Medicine’s Campaign Cabinet, was born in Czechoslovakia and came to Oregon at the age of 2. She graduated from Mills College in 1958 and has completed coursework at the University of Washington for a master’s degree in art history. Suzanne has been a docent at the Seattle Art Museum since 1963. She is currently the Chairman of the ACCESS SAM Program that trains docents to tour people with vision and hearing loss. The ACCESS SAM Programs offers regular tour to organizations such as Vision Loss Connections and the Hearing, Speech, and Deafness Center.

**Emeritus Faculty**

Melvin Freeman, MD, FACS
Clinical Professor, Emeritus

Anita Hendrickson, PhD
Professor Emerita

Robert Kalina, MD
Professor Emeritus

Ann Milam, PhD
Professor Emerita

John Saari, PhD
Professor Emeritus

Kevin Callaghan
Kevin is an Investment Manager at Badgley Phelps, specializing in estates, trusts, family partnerships, and other topics relating to wealth management in a complex taxable environment. He is currently involved with numerous charitable organizations, including the Museum of Flight, the John Graham Foundation, and the Bishop Eye Research Foundation.

Dennis Evans
Dennis studied Chemistry at the University of Washington and went on to get a BFA in Ceramics and an MFA in Design from the UW. His artwork is included in many major museums and public corporation collections, including the Museum of Modern Art and the Metropolitan Museum of Art in New York City. Closer to home, his artwork is on display in the UW Medicine Eye Institute and in the Department of Ophthalmology. Dennis is also a book and print publisher.

Dan and Irene Hunter
Dan and his wife, Irene, have been so impressed with the quality of care that they have received as patients at UW Medicine’s Eye Institute. After a successful cataract surgery, Dan is looking forward to taking the test for his driver’s license, which he hopes to pass without his glasses. Before treatment at UW Medicine’s Eye Institute, Irene’s vision was 20/200 and after surgery it is now 20/40. She has also had cataract surgeries that were very successful. At age 89, Irene has seen incredible changes in eye care during her lifetime and is excited to see more on the horizon.

Camille Jassny
Camille and her husband, David, have two wonderful sons as well as a terrific guide dog, Brietta. Camille has had chronic eye disease her whole life and lost her sight three years ago. Because of this, she has always been interested in research, particularly involving stem cells. For her and others like her in the non-profit organization she helped start, Vision Loss Connections, the research conducted at the UW and elsewhere is their only opportunity for sight. Loss of sight has not held her back from being an active person and her goal is to help others live full and meaningful lives.

Robert E. Kalina, MD
Dr. Kalina is a graduate of the University of Minnesota Medical School and the ophthalmology residency program of the University of Oregon Hospitals and Clinics. After service in the United States Air Force and further training in retinal diseases and surgery in San Francisco and Boston, he joined the faculty of the University of Washington Department of Ophthalmology in 1967. He served for 27 years as Department Chair and now is Professor Emeritus. He is past president of UW Physicians, Director Emeritus of the American Board of Ophthalmology, and recipient of the Life Achievement Honor Award of the American Academy of Ophthalmology.

Nancy Mee
Nancy was born in the San Francisco Bay Area and attended the University of Washington, where she earned a BFA in Printmaking in 1974. She has studied etching at Atelier 17 and glass fusing and slumping at the Pilchuck Glass School. Nancy’s sculptures incorporate a variety of materials including glass, forged steel, stone and photography. She is shown in several galleries across the United States, and is represented in many public and private collections nationally and internationally.

Ernie J. Pearson
Ernie is the Chairman and founder of Lee & Associates- Central Valley, Inc., which specializes in land, industrial sales and leasing, and tenant representation. He became aware of the Eye Institute, when he was diagnosed with macular degeneration. Over the past twenty years, he has experienced cataracts and a detached retina, and is well aware of the progress within the medical community to preserve sight in individuals. Mr. Pearson joined the Community Board for the purpose of helping the Eye Institute become more widely known and supported throughout the community.

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Grants, Gifts and Awards

2008
The Department of Ophthalmology was awarded one of the first EUREKA grants from the NIH. EUREKA stands for Exceptional, Unconventional Research Enabling Knowledge Acceleration. The award was created to support potentially transformative research, even if the project carries a greater than usual degree of scientific risk. The department received a $700,000 three-year award to support ongoing research in the Van Gelder lab that creates an entirely new way of studying biology using a light sensitive molecule. In studying how organisms from fruit flies to humans respond to light even when they can’t see, Van Gelder and graduate student Sara Van Vickle Chavez focused on a novel photoreceptive protein called cryptochrome. This protein is required for the circadian clocks of fruit flies to synchronize to light. Potential applications to eye disease include creation of protein-based drugs whose levels could be controlled in skin or eye just by the level of light exposure. This might allow an otherwise toxic drug to be safely controlled in these sites.

2009
Research to Prevent Blindness awards an unrestricted grant of $110,000 to the Department of Ophthalmology to support research into the causes, treatment, and prevention of blinding diseases. RPB has historically supported the Department, awarding grants totaling more than $2.7M.

2010
Searching for a way to commemorate her husband, Dr. Roger Johnson’s passion for improving the treatment of children’s eye disease through research, Angie Katalo Johnson endowed the Roger H. & Angie Katalo Johnson Professor in Pediatric Ophthalmology. The title is held by Avery Weiss, MD, Professor of Ophthalmology at UW and Chief, Division of Ophthalmology at Seattle Children’s Hospital.

2011
Helen L. and Arthur T. Ness Research Fund The Helen L. Ness and Arthur T. Ness Research Fund in the Department of Ophthalmology will provide a permanent source of support for new research related to vision and the eye. Mrs. Ness was born in Everett Washington and at a young age was stricken with rheumatic fever, an illness that left her with a deep understanding of the importance of good health. She was married to Arthur Ness, a scientist who received his PhD from the University of Washington and worked as a scientist for the National Institutes of Health.

Robert E. Kalina Endowed Professorship for Ophthalmology Education
In 2009, a group of former residents and fellows developed an idea to honor Robert E. Kalina, MD, the longest serving chairman of the department, by creating an endowed professorship in his name. Since then, more than 60 other residents, fellows, and faculty members have made pledges or gifts totaling more than $500,000 to the Robert E. Kalina, MD Endowed Professorship for Ophthalmology Education fund. The professorship will support the department’s education program, including its residency program director. It was Dr. Kalina’s specific request that the professorship focus on education because he believes that when it comes to funding the “three legged stool” of research, education, and patient care – the teaching component can get short shrift. The endowed professorship will create a permanent, reliable source of funds to support educational activities for both residents and fellows.

“This unrestricted support will be extraordinarily useful as we re-build our research enterprise, particularly given the economic turmoil. It is an honor to be supported again by RPB and to rejoin the ranks of the outstanding RPB grantee Departments of Ophthalmology nationally.”

The Tietze Family Awards support early-stage, proof-of-concept research at UW Medicine’s South Lake Union campus, with an emphasis on stem cell and vision research. The award will allow for the pursuit of new ideas that might one day help us reach our goal of a safe, effective stem cell treatment for diseases like retinitis pigmentosa and macular degeneration. The John H. Tietze Foundation Trust has been a generous supporter of UW Medicine since 2003, when it created its first Young Scientist Awards. Recipients of past Young Scientist Awards have used their awards to support research that lead to scientific breakthroughs.
“The real voyage of discovery consists of not in seeking new landscapes but in having new eyes.”

Marcel Proust
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The mission of the Department of Ophthalmology at the University of Washington is to provide high quality medical and surgical vision care for patients, develop new knowledge and treatments for eye diseases through clinical and basic research, and prepare the next generation of physicians and vision scientists to meet 21st century challenges in ophthalmology and vision research.

EYE INSTITUTE  | Clinic Locations

UW Medicine Eye Institute at Harborview
Ninth & Jefferson Building
7th Floor, Ninth & Jefferson Building
908 Jefferson St.
Seattle, WA 98104
(206) 744-2020
(206) 744-3937

Eye Center at UWMC
University of Washington Medical Center
NN 300
Box 356163
1959 N.E. Pacific St.
Seattle, WA 98195
(206) 744-2020

Ophthalmology (Eye) Clinic at Harborview
Harborview Medical Center
4th Floor, West Clinic
Box 359894
325 Ninth Ave.
Seattle, WA 98104
(206) 520-5000
(877) 744-9700

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Seattle, WA 98121
(206) 443-0400