THE GRONERT LAB
A NEW FRONTIER IN BATTLING OCULAR DISEASE

PLUS
Welcome John Flanagan, the new dean of Berkeley Optometry (see page 30)
As I write this message, my final piece for the Berkeley Optometry Magazine as Dean, I feel very blessed to have had this experience and to have enjoyed tremendous support from our students, faculty and staff, alumni and friends of the school. Without all of you, the school would not have been able to accomplish as much as we did during one of the most economically challenging periods in the history of this great University.

As I conclude over twelve years as Dean and prepare for my continued role as professor and vision science researcher, I ask that you join me in wishing John Flanagan even greater success as the eighth Dean of Berkeley Optometry. He brings incredible credentials and is well prepared for this role. He deserves the same encouragement as was shown me when I came to Berkeley in August 2001, and I know that you will all join me in providing this support.

I have been proud to be a part of many great successes in the development of Berkeley Optometry over these past twelve years. In listing our major milestones reached during this time, I am reminded once again that these are not my successes, but rather ones that I have been granted the honor of facilitating by allowing our faculty and staff to do what they do best—teach, research and administer. I am thrilled that our senior leadership team has committed to continuing to fulfill their roles in assisting me to close out my tenure and to help our new Dean begin his. And now, to summarize what I consider our major accomplishments:

• We adopted a long-term faculty recruitment plan to replenish retiring faculty and extend the range of expertise in teaching and research, both for academic senate faculty and for professors of clinical optometry. Clearly, the quality of our faculty is critical to the education that we can provide, and we are thrilled to have begun a process that allows our school to cultivate the best-of-the-best.

• We recognized both the need and the opportunities for translational research and established the Clinical Research Center in 2004.

• We converted the prior membership-based Alumni Association, which operated outside of the University structure, to one that operates within it. Berkeley Optometry now serves all of our graduates as members for life, providing benefits and opportunities to each and every alum.

• We established the Development and Alumni Relations Office to lead our philanthropic efforts and to provide for the needs of our alumni. This office has had tremendous success in meeting our ambitious campaign goals (funding an endowed chair, research support, capital improvements and clinic equipment and facility modernization). That said, I am most proud of our ability, through these efforts, to increase student financial aid through endowments, which allows us to provide every student in good standing with a fellowship or scholarship.

• We have taken an extremely strong faculty and made it even stronger, and we continue to attract the very best students. This leads me to my proudest accomplishment: over the past 12 years, we have graduated over 800 new optometrists, each fully capable of serving both young and old in resolving refractive, binocular and visual health needs. Each graduate has seen approximately 2,500 patients as part of his or her curriculum and is fully prepared for the expansions in scope of practice yet to come. At the same time, we graduated nearly 100 additional students completing an MS or PhD who are now vision science researchers and faculty.

Thank you for the support that you have given me, and rest assured that I have treasured (and will continue to treasure) my experience as your Dean!
RESOLUTION PHARMACOLOGY: A NEW FRONTIER IN BATTING OCULAR IMMUNE DISEASES
By Karsten Gronert

NONINVASIVE BRAIN IMAGING OF THE VISUAL SYSTEM
By Ralph Freeman

VOSH NICARAGUA
By Linda Truong

VOSH CHINA
By Andrea So and Carole Chang

HELPING THE WORLD SEE MORE CLEARLY
By Kelly Kao

OPTOMETRIST TO THE STARS: HARTLE TALLMAN, CLASS OF 1925
By John Fiorillo

Samantha Wang, of the Gronert Lab, is responsible for many key discoveries related to sex-specific ocular inflammation.
Sybil and I made a small donation to the Berkeley Optometry Annual Fund, and I really don’t know how to express my reaction to the letter I received acknowledging my donation. We were overwhelmed with the graciousness and sincerity of the response that reinforced what you say, “every donation makes a difference.”

The demands of life more often than not seem to overtake us to the point of losing sight of our blessings. My life has certainly been blessed by those who have given support and encouragement along the way—parents, teachers and, above all, my wife Sybil—but the opportunity afforded me by the University of California and its School of Optometry stands along with these people.

Berkeley Optometry has provided dignity, respect, satisfaction in the service to others and a lifestyle to be appreciated. I believe most of us who have pursued the profession of optometry would feel the same, especially toward the end of their practicing years.

So permit me to shower you with my gratitude for your very moving letter of thanks, and for the hard work of those at Berkeley Optometry who are ultimately responsible for our education, individuals such as yourself, the Dean and school faculty.

Respectfully yours,

Ronald L. Goldstein, OD, FAAO, ’59
Resolution Pharmacology:

A NEW FRONTIER IN BATTLING OCULAR IMMUNE DISEASES

BY KARSTEN GRONERT

The Gronert Lab - Front row, from left to right: Matthew Greenwood, Karsten Gronert, Yuan Gao; Middle row: Samantha Wang, Mardjan Nabillolah, Kyungil Min, Kyle Hu, Jonathan Jong; Back row: Sean Li, Erick Lu, Jeremy Lal
Karsten Gronert is an associate professor in the Vision Science Graduate Program at Berkeley and joined the School of Optometry Faculty in the Fall of 2007. He was the Solon M. and Pearl A. Braff Chair in Clinical Optometric Science from 2008–2011. He is the co-instructor for the systemic and ocular pharmacology courses for the School of Optometry OD program. His NIH and foundation-sponsored research is focused on defining the regulation and molecular mechanism of lipid signals in inflammatory/immune responses of the eye and developing therapeutic approaches to limit the consequence and progression of ocular injury and diseases. Born in Germany in 1965, Karsten received his BS in biology with a minor in chemistry in 1987 and his MS in biology in 1990, from the University of Texas at El Paso. Karsten obtained his PhD in cell physiology in 1995 from New Mexico State University and then moved to Boston for postdoctoral training in inflammation and molecular pharmacology at Harvard Medical School and Brigham and Women’s Hospital. At Harvard Medical School, he was promoted to Instructor in 1999 and Assistant Professor in 2002. He moved to New York Medical College in 2003, and in 2005, he was promoted to Associate Professor in Pharmacology and Ophthalmology. Karsten serves as a regular ad hoc reviewer for study sections with National Institutes of Health and for numerous immunology, biochemistry and ocular journals. He is currently on the editorial board of Prostaglandins & Other Lipid Mediators, and Eye & Contact Lens. In 2012, he received the Deans Award for “Contributions to the Understanding of Protective Lipid Circuits in the Cornea and for Outstanding Academic Leadership” from Louisiana State University, Neuroscience Center of Excellence. He will assume the role of Chair of the Vision Science Graduate Program at Berkeley in January 2014.

Inflammation is a frequent, self-resolving and healthy physical response that is essential for the protection, maintenance and integrity of all bodily tissues, and is intimately linked to healing and tissue regeneration. At any given time in a person’s life, healthy and temporary inflammation often goes unnoticed in the eye, skin, gastrointestinal tract, lungs and blood vessels. By design, a healthy inflammatory response is beneficial, temporary, resolves naturally and restores normal function to the afflicted tissue or organ. This complex inflammatory response is driven by white blood cells (leukocytes), which patrol the body and possess a potent arsenal of bactericidal agents and chemical mediators that orchestrate inflammation, immune responses, blood vessel formation and wound healing. When injury, stress or infection occurs, leukocytes travel to the affected tissue or organ where their activation is tightly controlled to enable limited and specific release of the potent arsenal that kills bacteria, regulates subsequent lymphocyte (immune) responses and promotes healing and regeneration, all while trying to limit collateral damage to the surrounding tissue.

We now recognize that healthy and routine inflammation requires the activation of conserved programs that terminate
pro-inflammatory circuits, resolve tissue leukocytes (Figures 1 and 2) and drive healing and nerve regeneration. Unfortunately, this complex regulation of healthy inflammation is precariously balanced and can tip toward causing unwanted tissue damage and chronic inflammation and initiating misguided autoimmune responses, a key feature of many ocular diseases. This emergent new paradigm has given rise to the field of resolution pharmacology as a revolutionary strategy for treating immune/inflammatory diseases.

Previously, researchers assumed that healthy inflammation stopped because the inflammatory signals fizzled out and the leukocytes eventually left the afflicted tissue. Research conducted over the past ten years has shown, however, that termination of inflammation is an active process controlled by signals and highly specialized pathways for the removal of spent leukocytes and to balance pro-inflammatory circuits.

Figure 1: Leukocytes surrounding blood vessels in the limbus region of the cornea.

Figure 2: Neutrophils in the Corneal Limbus Region After 3 Days of Desiccating Stress

Red = Blood Vessel  Green = Neutrophil
Inflammation is tightly regulated by an array of signals and genes. Out of this array, lipid signals—critical regulators of inflammation and immune responses—are of particular interest. Virtually every cell in the body contains enzymes that can generate and release highly specific, early response, and potent lipid signals. Distinct classes of lipid signals (lipoxins, resolvins and protectins) have been identified as specialized pro-resolving mediators (SPM). SPMs regulate healthy inflammation and control the activation of leukocytes and immune cells. SPMs derived from essential dietary polyunsaturated fatty acids (PUFA) have been identified as key mediators of this essential process. Karsten Gronert is the incoming 2014 Chair of the Vision Science Graduate Group. His laboratory is one of a handful of research teams around the world focused on elucidating the role and molecular mechanisms of protective lipid mediator programs that are essential to regulating and orchestrating a routine and healthy inflammatory response.

Professor Gronert was a member of the team at Harvard Medical School that discovered the first omega 3 (ω-3) PUFA-derived protective signals and defined their action and structure. In 2005, he initiated the first NIH study to establish the role of protective lipid mediator circuits in the cornea, and, in 2007, he joined Berkeley Optometry. His research team has discovered intrinsic SPM circuits in the cornea and retina that control inflammation, leukocyte function, wound healing and formation of new blood vessels (angiogenesis). Ongoing studies in his laboratory, supported by the National Eye Institute, Sjögren’s Syndrome Foundation and the Children with Diabetes Foundation, are defining the molecular mechanisms of SPM and how they are regulated by estrogen and dietary fish oils (ω-3 PUFA). More importantly, they are exploring therapeutic amplification of ocular SPM lipid circuits as a treatment option for ocular immune diseases.

Professor Gronert’s laboratory has unique expertise in mass-spectrometry-based identification of lipid signals and lipid mediator bioinformatics (Figure 3). This lipidomic expertise has fueled numerous national and international collaborations, including NIH studies focused on epithelial cell interactions with bacteria, conjunctival inflammation and the resolution of ocular bacterial-induced inflammation. Other collaborations include large clinical trials to define the protective role of SPM and their dietary amplification in the development of Type 1 diabetes in children and the efficacy of ω-3 PUFA in the treatment of sepsis.
**Dietary Treatment of Dry Eye Syndrome: Amplification of SPM**

The health benefits of ω-3 PUFA (fish oils) are widely accepted and supported by large-scale epidemiological and observational studies, which have established an inverse correlation between dietary fish oils and the prevalence of inflammatory disease and disease mortality. More striking is the fact that a specific ω-3 PUFA, docosahexaenoic acid (DHA), is selectively enriched and recycled in the retina and brain, where it can account for ~50 percent of all PUFA and its levels are buffered against short-term dietary fluctuations.

DHA is essential for normal neural development, and dietary intake of ω-3 PUFA inversely correlates with progression to advanced age-related macular degeneration (AMD) or the incidence of dry eye syndrome. Despite decades of research efforts, however, a clear mechanism for the beneficial actions of fish oils eluded scientists. From 1999–2003, Professor Gronert was part of the research team at Harvard Medical School that, in collaboration with Louisiana State University Health Science Center, discovered the first ω-3 PUFA-derived SPMs and how they work. ω-3 PUFA are converted to specific and highly potent SPMs that drive inflammatory resolution and are neuroprotective. This discovery was a major breakthrough.

Recent work from the Gronert Lab has demonstrated that dietary ω-3 PUFA amplify this “resolution pathway” and that the remarkable protective effects of ω-3 PUFA on the eye and other organs are mediated by DHA-derived SPMs (Figure 4).

**Sex-Specific Regulation of Ocular Inflammation**

A striking feature of dry eye syndrome is that it affects mostly women. The pathogenesis for this highly sex-specific immune disease is unknown. The role of estrogen in ocular surface disease and inflammation has been largely ignored, despite the fact that its receptors are expressed in every ocular tissue and estrogen triggers pro-inflammatory gene expression in corneal epithelial cells and meibomian glands. A 2001 clinical study of 25,665 females by Schaumberg (Schaumberg et al., JAMA, 2001) demonstrated that estrogen replacement therapy is associated with increased prevalence of dry eye symptoms.

Professor Gronert’s research team discovered that the cornea is uniquely endowed with a highly evolved SPM lipid program, namely the 15-LOX-Lipoxin circuit, which regulates epithelial wound healing, inflammation and the pathological formation of blood vessels. The role of the 15-LOX-Lipoxin circuit in ocular health or its dysregulation as an early event in the pathogenesis of ocular disease is a primary focus of the Gronert Lab (Figure 6, next page). Hence, Samantha Wang’s discovery of a female-specific corneal injury response inspired a new research project in the Gronert Lab. Samantha, a 2013 Vision Science PhD graduate, observed that in mouse models of acute corneal inflammation and wound healing, female mice consistently healed more slowly than male mice. She also found that they exhibited a female-specific innate immune response. The clinical relevance of these serendipitous findings was not fully appreciated by the research team until they collaborated with The Francis I. Proctor Foundation at UCSF in a study led by Professor Acharyato to analyze data from a clinical trial of 120 patients with fungal corneal ulcers. Their analysis unexpectedly demonstrated that the time for...
complete corneal epithelial wound healing was significantly longer in female patients compared to male patients. These groundbreaking animal and clinical findings launched studies in the Gronert Lab using models of epithelial injury, dry eye and ocular surface immune responses. This ongoing pioneering study has demonstrated for the first time that estrogen and selective estrogen receptors regulate epithelial wound healing and inflammation responses in the cornea. More importantly, estrogen specifically reduces gene expression and activity of the 15-LOX-Lipoxin circuit in the cornea. In view of the fundamental role of this SPM lipid program in driving inflammatory resolution and wound healing, these findings have important implications for estrogen’s role in routine ocular inflammation response. This exciting project was funded in 2012 by a new $1.5 million grant from the National Eye Institute.

**Thinking Outside the Box: Resolution Pharmacology**

For almost a century, the treatment approach to inflammatory or immune diseases has been to globally inhibit pro-inflammatory and immune pathways. Unfortunately, these pathways are also key components of healthy and routine physiological responses. Our current treatment options for AMD, diabetic retinopathy and dry eye syndrome are very limited and not aimed at preventing or eliminating the cause of the disease but, instead, target the long-term inhibition of immune or inflammatory pathways in the eye. A promising frontier in the battle against ocular inflammatory disease is the identification and development of resolution agonists that amplify SPM programs that ensure the execution of healthy inflammation, leukocyte housekeeping and tissue regeneration (Figures 2 and 5). The strategy of developing “resolution agonists” for the treatment of chronic inflammatory diseases, including dry eye syndrome, was the subject of a special symposium in 2011, entitled “New Mechanisms in the Resolution of Inflammation: Implications in Health and Disease” at the New York Academy of Sciences, where Professor Gronert presented his work on the highly evolved SPM lipid circuit in the eye.

The therapeutic amplification of SPM lipid circuits in animal models have demonstrated efficacy in promoting corneal wound healing, resolving inflammation and lymphocyte activation, inhibiting uveitis (inflammation of uvea), driving nerve regeneration and retinal neuroprotection, and limiting retinopathy of prematurity. The first identified w-3 PUFA-derived SPM (Resolvin E1) exhibits impressive and potent bioactions in several disease models. In the eye, Resolvin E1 inhibits pathological angiogenesis, improves tear formation in evaporative dry eye models, inhibits inflammation/immune responses and controls herpes simplex virus–induced ocular inflammatory response.

**Figure 5:** Immunohistochemistry showing distinct leukocyte populations in the corneal limbus region.

**Figure 6:** Images of mouse eyes. Green stain indicates epithelial defect.
lesions. Resolvin E1 analogs are currently in clinical trials, with promising results for the treatment of dry eye syndrome and could offer the first opportunity to harness and target the protective properties of SPM in treating ocular inflammatory disorders. Our knowledge of the structure, receptors and signal transduction pathways of SPM lipid circuits is rapidly advancing and the safety and potency of drugs that are stable analogs of SPM have been established in animals. Drug companies are now exploring the therapeutic potential of SPM lipid circuits, moving the new paradigm of resolution pharmacology rapidly from bench to bedside and generating novel treatment options for dry eye syndrome, retinopathies, uveitis, glaucoma and AMD.

Professor Gronert’s Lab and a small group of pioneering research groups around the world are focusing intense research efforts on defining molecular mechanisms, structures and regulations of SPM, and as a result are identifying novel targets in lipid mediator programs that are fundamental for the execution of healthy immune responses and for resolving disease-causing inflammation. The breadth of research in the Gronert Lab underscores the potentially far-reaching clinical impact of intrinsic SPM lipid circuits and the central mission of this research team: to elucidate the role and regulation of these “resolution programs” in ocular health and diseases and to identify new targets in the battle against inflammatory/immune diseases.
This review is by Professor Ralph Freeman who has been on the faculty of the University of California, Berkeley, School of Optometry since 1969. His education includes an optometry degree from The Ohio State University and a PhD in biophysics from UC Berkeley (1969). He has recently retired but remains a Professor of the Graduate School and has an active research grant from the National Eye Institute that he has held for forty years. He has engaged in a wide range of research, including biophysical characteristics of the cornea, behavioral studies of visual function, neurophysiological investigations of the central visual pathway in the brain, and neuro-metabolic relationships related to noninvasive neural imaging.
Background

The field of noninvasive neural imaging began with studies that allowed measurement of cerebral blood flow in the functioning human brain. A key advance was the use of radioactive tracers and the development of positron emission tomography (PET). This is a method by which three-dimensional images of functional biological processes may be produced by use of an active molecule that is an analogue of glucose. With this technique, blood flow measurements may be made although spatial resolution is relatively crude. In parallel, nuclear magnetic resonance imaging was developed for studies in physics. Although the original intention was to provide observations about magnetic characteristics of atomic nuclei, clinical uses were initiated and the result was magnetic resonance imaging (MRI). In its current form, it is employed for anatomical and physiological estimates of function in both clinical and basic research applications. The focus on “function” resulted in the addition of an “f” before MRI. When it was realized that the signals studied reflected increases in blood oxygenation in activated parts of the brain, numerous applications were anticipated. Specific visual activation raises cerebral blood flow and oxygenation in identified brain regions. This leads to the measurement that is currently used in fMRI, i.e., the blood oxygenation level dependent or BOLD signal. Although the basic principles of this technique are established, BOLD signals are generally not strong and are subject to many variables. A primary goal in basic fMRI application is to use BOLD signals to imply neural function. The conditions that should be applied to this goal are not entirely clear, and it is the purpose of the research we have undertaken to build some specific experimental links in the process.

fMRI and Tissue Oxygenation

The basic principles of fMRI noninvasive imaging events and associated tissue oxygen changes are illustrated in Figure 1. The cartoon of the human head depicted in the upper left shows neural activation of portions of the brain in yellow. With visual activation, there are vascular events to support the neural activity that is accompanied by changes in energy metabolism. The basic steps involved are illustrated in the chart in the upper right of Figure 1. Increases or decreases are depicted with arrows that point up or down, respectively. Under vascular events, blood flow and volume are increased which leads to a decrease in deoxyhemoglobin. Deoxyhemoglobin is inversely proportional to the BOLD signal, which is increased. Under energy metabolism, glucose and oxygen supplies are increased to sustain the metabolic requirements of neural...
activation. The diagram on the lower left of Figure 1 depicts a combined oxygen-neural activity sensor. A platinum neural electrode is fixed in one barrel of the double capillary tube. The other tube contains an oxygen electrode consisting of an anode and cathode. Together, this sensor provides co-localized measurements of changes in neural and metabolic function at a specific area of the visual pathway in the brain. The collage on the lower right of Figure 1 is a section of tissue with cells from the visual cortex of the brain. A portion of the two barrel electrode is shown superimposed on the tissue. Tissue oxygen is closely related to the BOLD signal as follows. Neural activation in the form of visual stimuli causes an increase in oxygen metabolism to support energy requirements. This is sustained by an increase in cerebral blood flow, which augments the local supply of tissue oxygen. This process causes a depletion of deoxyhemoglobin. The BOLD signal then increases since it is inversely proportional to the concentration of deoxyhemoglobin. In other words, the BOLD signal is a measure of the deoxyhemoglobin change that occurs as tissue oxygen is increased.

Some Experimental Results

The central visual pathway proceeds from the retina to the lateral geniculate nucleus in the thalamus to the visual cortex. Response properties of individual neurons vary along this pathway, and in the visual cortex there are two primary characteristics not observed at earlier levels. First, neurons are sensitive to the orientation of extended edges in visual stimuli. Cells respond to a limited range of object line or surface orientations. Second, cortical cells are functionally binocular in that they can be activated through either eye. We have used these characteristics to examine basic questions concerning the relationships between neural and metabolic response characteristics of cortical cells.

A sample result of this approach is illustrated in Figure 2, which contains data on orientation selectivity. In A, a neural tuning function is shown in which alternating light and dark bars oriented at around 270° produce the maximum spike discharge response from the cell being recorded. A second curve in A represents oxygen concentration changes with orientation. There is a clear symmetry, which indicates maximum oxygen depletion at the preferred orientation of the cell. In B, optimal orientation differences between neural and metabolic measurements are indicated for a small population of cells. Mean differences are relatively small. Orientation tuning differences for neural and metabolic measurements are also relatively modest as shown in C.
A similar analysis is shown in Figure 3 for ocular dominance data concerning the relative degree of binocularity of cortical cells. Ocular dominance refers to the degree to which each eye exerts influence on the firing of a given visual cortical neuron. In A, neural and oxygen responses are shown for left and right eye stimulation for one recording site. In this case, the left eye’s neural response is stronger than that of the right as indicated by the shaded gray region. The oxygen response is biphasic, which means it has two clear phases of response. First, there is a negative component and this is followed by a positive response. For the left eye (LE), these responses have similar magnitudes. The right eye (RE) response is more typical in that the initial negative response is relatively small and that of the positive peak is large. Note that the relatively strong initial response for the left eye is consistent with the neural pattern. This initial oxygen component is more closely associated with the neural response than that of the secondary peak. The data for this recording site is shown in histogram form in B. The dominant neural response of the left eye is shown on the left and the negative change in oxygen response is displayed on the right. In C, the difference in percent oxygen change between right and left eyes is plotted as a function of the ocular dominance index for each cell in a population. The index is the ratio of the difference in left and right eye response over their sum. If the right eye dominates completely, the index is –1, and it is +1 for left eye domination. The data indicate a negative correlation or inverse relationship between neural responses of ocular dominance and oxygen changes. The relationship shows a larger negative percentage of oxygen change for the stronger compared to the weaker eye. The examples shown in Figures 2 and 3 are representative of populations of cells in the visual pathway. Results demonstrate a clear and synchronous relationship between neural activity and associated changes in tissue oxygen concentration.

Summary

The recent advances in noninvasive brain imaging should provide substantial increases in our understanding of anatomical and functional relationships in the visual pathway for normal and abnormal conditions. However, technological advances sometimes get ahead of the underlying biological scientific principles and relationships between relevant factors. Although there is now broad use of fMRI for basic and applied applications, there are still significant questions regarding interpretations of the signals measured. It is important to try to address some of these questions with appropriate experimental approaches. We have tried to do this in the work undertaken in our laboratory.

Figure 3: Comparisons are presented of ocular dominance for neural and oxygen responses. Responses are shown for left eye (A, top) and right eye (A, bottom) stimulation. (B) Bar plots compare the average neural spikes (A, bottom) and oxygen responses between the two eyes. (C) The difference in tissue oxygen change between the two eyes is plotted for a population of neurons as a function of the ocular dominance index for each cell.
IN JANUARY, sixteen students from Berkeley Optometry’s Volunteer Optometric Services to Humanity (VOSH) program joined six optometrists from VOSH Connecticut to travel to San Juan del Sur, Nicaragua.

The eye care services took place in a local elementary school where the team set up six exam rooms, each consisting of one optometrist and groups of two to three students. The students performed retinoscopy, trial frame refraction, direct and indirect ophthalmoscopy and analysis of visual function. They not only improved their optometric skills; they also learned un poquito de español (a little Spanish). As a first- and second-year group, the students had limited patient interaction prior to the trip. To meet the challenge of treating the patients in San Juan del Sur, the Berkeley Optometry students held several practice sessions during their winter break in December 2012. The VOSH Connecticut optometrists participating in the program, who are mainly private practitioners, graciously donated their time during these sessions to teach the students, preparing them for the cases they would treat in Nicaragua.

This was the program’s fifteenth year of providing free eye care to the local population at this site, the twelfth year under the sponsorship of VOSH Connecticut. The student group consisted of first- and second-year students, all of whom were participating in a VOSH clinic for the first time. In addition to the optometrists, VOSH Connecticut brought fifteen dispensary assistants/translators and one third-year student from the New England College of Optometry (NECO).

Group leader Stephanie Chen ’15, worked closely with Dr. Matthew Blondin, the director of VOSH Connecticut, to ensure a smoothly run program in San Juan del Sur.

Over the course of four clinic days in San Juan del Sur, the team served 2,696 patients and dispensed approximately 5,200 pairs of glasses, including sunglasses, single vision, multifocal and readers, all of which had been donated by VOSH Connecticut. Donated pharmaceuticals and lubricating drops were used to treat patients with glaucoma, blepharitis, pinguecula and conjunctivitis. The trip also gave students the opportunity to diagnose pathologies not commonly seen in the United States, such as pterygium, coloboma, toxoplasmosis, advanced cataracts and papilledema.

The trip was a great success! Relations among VOSH Connecticut, Berkeley Optometry and the community in San Juan del Sur remain strong. The program’s future is bright and will continue to provide Berkeley Optometry students with not only an invaluable learning experience but also the opportunity to provide free eye care to the people of San Juan del Sur, Nicaragua.

Linda Truong ’15
LAST DECEMBER, thirteen Berkeley Optometry students traveled to Fuzhou, China, to provide free eye care to underserved populations in need of basic medical care. Although Fuzhou is mostly urban, almost three million people live in the surrounding rural areas, with little to no access to any type of healthcare.

Trip participants ranged from first- to fourth-year students. Some were native Mandarin speakers, whereas others spoke no Chinese. For many, this was their first VOSH trip; others, however, were veterans, returning to the program for the third time. Regardless of the participants’ level of knowledge, skill or language barrier, all traveled to China with the purpose of providing eye care to those in need.

Berkeley Optometry student and trip organizer, Andrea So ‘13, chose China as a destination because her parents are of Chinese origin. Berkeley Optometry clinical faculty member Maria Liu, OD, and NECO clinical faculty member Yu Su, OD, connected with the Fuzhou Eye Hospital, the Fuzhou TV station, the Red Cross Society of China, as well as international sponsors to arrange for accommodations, transportation and clinic venues in the city of Fuzhou.

Students coordinated everything else needed for the trip, including equipment (Rachel Kaneta ’15), pharmaceutical donations (Tiffany Tseng ’15, and Catherina Min ’13), exam lane equipment and setup (Nathan Cheung ’15), and monetary donations and sponsorships (Kevin Tong ’15, and Betty Hom, a UCLA undergraduate and current pre-med student). Their efforts resulted in the donation or loan of 20 diagnostic sets, 2 hand-held tonometers, several trial lens sets, penlights, over 700 bottles of artificial tears, dilation drops, allergy drops, antibiotics, antibiotic and steroid combination drops, alcohol swabs and 1,500 pairs of prescription glasses and sunglasses. Over $3,500 was generously donated by individuals, small businesses and large companies in the industry—all of which went to fund the VOSH China trip.

The clinics in Fuzhou were held in town squares, in small villages bordering the city, and at elementary schools in agricultural areas. Each clinic setting was unique and organized into multiple stations geared toward targeting different vision issues. At the first station, students who spoke Chinese and volunteers took the patient’s case history and measured visual acuity. Patients then systematically rotated through the remaining stations, including retinoscopy and trial frame refraction, intraocular pressure (IOP) check and direct ophthalmoscopy, and finally the dispensary. By the end of the three-and-half-day clinic, participants screened and refracted more than 500 patients. Approximately 30 vouchers for locally made glasses were given to children who had high or unusual refractive errors. A large percentage of the patient population was presbyopic, and many had pingueculas, pterygium and dry eyes. For the students, this experience demonstrated the great need for humanitarian work in optometry and, hopefully, generated interest for more volunteers to participate in future trips.

On the last day of the trip, the group toured Fuzhou Eye Hospital. The Hospital had taken primary responsibility for arranging the venues for each of the clinic sites. On the tour, students visited the operating room to observe strabismus surgery to correct misalignment of the eyes, cataract surgery and pterygium surgery to remove abnormal tissue—a truly valuable learning experience to wrap up a unique and educational experience in China!

For a YouTube clip of the trip put together by the Fuzhou TV station, visit http://www.youtube.com/watch?v=g2fR2gD5Oao, or scan the following barcode with your smartphone:

Andrea So ‘13
Carol Chang ’16

Berkeley Optometry thanks the following corporate and personal sponsors for their support of the 2012 VOSH China effort: Alcon; Banners of China; Bausch & Lomb; Jeff Calmerse ’88; Keith Chow ’93; Susan G. Gordon, OD; Heine; HOYA; Linda Hur ’90; iCare; Alan & Carol Kaneta; Keeler; Alex Li; Tania Mantua ’90; Pioneer; Reichert; Sigma Pharmaceuticals; Charles Su, DDS; J. D. Twelker ’92, PhD ’01; Anna Wai-Po Cheung; Wal-Mart Vision Centers; Wilson Ophthalmic; Bryan Wright, MD; and Esther Yeh ’11.
EVEN AFTER GRADUATING from Berkeley Optometry, Kelly Kao ’09, had no idea how rewarding a career in optometry would be. Kelly was offered a post-graduate residency in Vision Therapy and Rehabilitation at the State University of New York (SUNY). The decision to participate in the program was not an easy one for Kelly, however, as her mother’s health had been failing for years as she battled cancer. It was her mother’s encouragement that gave her the strength to accept the position and continue her education in New York. After completing her residency and returning to California, Kelly accepted three wonderful career opportunities: teaching in the Binocular Vision Clinic at Berkeley Optometry, practicing full-scope optometry in a private practice and conducting binocular vision research at Google—none of which would have been offered to her without her mother’s support of her post-graduate residency at SUNY.

Back in California, Kelly was able to spend the last seven months of her mother’s life by her side. This experience inspired her to combine her passions for healthcare and religion into something she could share with others, a dream Kelly has been able to actualize in her nonprofit organization See the Lord. See the Lord (STL) is a nonprofit 501(c)(3) corporation based on Catholic principles. STL seeks to serve the underprivileged around the world by providing healthcare, Catholic ministry and education, bringing together volunteers with the necessary skills and the underserved to share talent and faith.

After two years of planning and fundraising, STL held its inaugural mission trip to Taiwan in December 2012. Over the course of six-and-a-half clinic days, the team of six (two ODs, including Dr. Esther Yeh ’11, and four pre-optometry students, including Crystal Wang ’17) examined over 400 patients and prescribed over 150 pairs of glasses. They partnered with local universities, hospitals, churches, villages, schools, orphanages, community centers and optical stores. The goal of STL’s work in Taiwan is to inspire local doctors, students and lay ministers to continue the efforts established in the rural locations. Once operations are generally self-sustaining, STL will expand to other countries, beginning with Thailand, Korea, China and the Philippines.

Kelly’s participation in a VOSH trip to Central America as a second-year student forever changed her perspective on optometry and life, and she hopes STL will provide more opportunities for students to experience this opportunity first hand. Of course, these mission trips will improve...
students’ retinoscopy and direct ophthalmoscopy skills, and many people who have never had glasses before will receive their very first pair. The true transformation STL hopes for, however, is the one within each volunteer. For a volunteer to use his or her talents, combine them with faith, and share that with people who have never seen before, is a priceless, life-changing experience. For this reason, mission trips are held year-round so anyone who would like to share their talents can do so easily.

Kelly now resides in Taiwan where she spends her time planning, preparing and networking for future mission trips for STL. She resigned from her three jobs in the Bay Area but is quite content doing full-time mission work abroad in her father’s home country. She is especially grateful to Berkeley Optometry faculty member Dr. Pia Hoenig ’89, for being so supportive of her dreams. Another strong Berkeley connection and classmate, Dr. Angela Huang, currently lives in Taipei and is able to provide recruiting assistance and partnering opportunities for STL. Together, they hope to influence the scope of optometry in Taiwan, as optometrists are generally not recognized in most Asian countries.

Kelly Kao ’09
In the late nineteenth and early twentieth centuries, opticianry and optometry training programs required only a brief period of study at a school, institute or optical company. The overwhelming majority of these programs were quite limited in scope. Some were merely correspondence courses, whereas others offered a few weeks of night classes. In lieu of course instruction, some opticians were self-taught, including those who learned on the job as employees of jewelers or watchmakers involved in the optics trade. Given these unregulated modes of training, patients often worried about misfortune at the hands of an incompetent shop optician or a swindler in the guise of a traveling spectacle peddler.

Before the 1920s, there were only two accredited university-level optometric curriculums in the US—Columbia (1910) and Ohio State (1915). A course of optometric study sanctioned by the University of California was therefore a milestone in the evolution of the optometric profession.

The optometry curriculum at Berkeley began on August 17, 1923. The new discipline admitted two students who had finished their lower-division undergraduate work, including math, chemistry and physics: Hartle Tallman, recently transferred from UCLA, and Angus MacLeod, an undergraduate at Berkeley. (You can read more about Angus MacLeod in the book Berkeley Optometry: A History.) By the time they received their certificates of optometry on May 13, 1925, and graduated from UC Berkeley, Tallman and MacLeod had completed two more years of study in upper-division courses featuring anatomy and physiology of the eye, optics of vision, practical optics, practical and theoretical optometry and optical clinic. They also comprised the entire inaugural graduating class of 1925.

Hartle Tallman (Nov. 18, 1902–Feb. 6, 1966)

The fourth of five children, Hartle Tallman was born in the small town of Lanark, Illinois, to George Washington Tallman (1864–1936) and Ida Valentine (1871–1937). GW, as he was known, was a jeweler who sold watches, silverware, imported China, gold pens and jewelry. He also fit spectacles, qualifying for this work after completing two courses in the early 1890s at the Chicago Ophthalmic College (one of the better training options of the period), bracketed by studying anatomy and physiology of the eye, optics of vision, practical optics, practical and theoretical optometry and optical clinic. They also comprised the entire inaugural graduating class of 1925.

In the mid-1910s, the Tallman family moved to the Los Angeles area, where the elder Tallman set up a jewelry store in Whittier. In 1921, Hartle enrolled at UCLA, taking classes for two years as he focused on engineering. He met his future wife, Kathryn Misner, an aspiring actress, at this time. A transfer to the University of California at Berkeley came next, where initially he continued his studies in engineering. However, admiring his father’s success and dedication to skilled opticianry and wanting a career that would accommodate self-employment, Hartle applied to the optometry curriculum, where he was welcomed by Ralph S. Minor (1876–1961), professor of physics and head of the curriculum.

When Hartle graduated from Berkeley, he married Kathryn and moved back to Los Angeles, finding employment for two years in the optometric practice of Eugene McCann, whose motto inscribed on his business card proudly proclaimed “Glasses Accurately Fitted.”

In 1927, Dr. Tallman purchased an optometric practice at 452 North Beverly Drive in Beverly Hills and later added an adjacent jewelry store. He liked this small town because it had the potential to grow.

In 1940, Hartle purchased an empty lot in the 300 block of North Beverly Drive and financed the construction of a building for an optometry practice and a jewelry store, managed by his brother Matt. The building was later featured in Architectural Digest.

Quick to spot the latest trends in spectacle design, Hartle Tallman helped introduce eyewear as fashion on the West Coast. He made regular trips to New York, returning with the latest frames from France and Italy. He was one of the first to fit fashion frames with plano sun lenses and sell them as ready-made plano sunglasses.

Many stars from the film industry were among his patients. Audrey Hepburn wore one of his designs in the movie Breakfast at Tiffany’s (1961), as did Lana Turner, Groucho Marx and other actors in some of their films.

In the years leading up to the Second World War, one of his patients was the celebrated actor, humorist and social commentator Will Rogers. Hartle was fabricating spectacles for him in 1935 when Rogers took an ill-fated flight with the aviator Wiley Post near Point Barrow, Alaska; both men perished.

During the early stages of the war, Hartle realized that Numont (gold-filled rimless) frames would probably be unavailable for the duration and so he ordered a large enough stock to carry him through the war years. Some of his patients during this period included Hollywood legends Lionel Barrymore, Marlene Dietrich, Errol Flynn, Clark Gable and Mickey Rooney.
After the Second World War, Dr. Tallman acquired surplus American Optical sun lenses intended for air-force goggles. He had wrap-around ZYL frames custom-made for these lenses to sell as plano sunglasses. Yul Brynner and Robert Wagner wore them in movies, and Clark Gable in private life.

Beyond his optometric practice, Dr. Tallman participated in various professional and civic organizations. In the early 1950s, he helped organize and was appointed co-director of the California Chapter of the National Association of Optometrists (NAO), and he served as NAO president in 1957–58. He was also active in the Beverly Hills Rotary Club, Chamber of Commerce and YMCA.

Hartle Tallman remained a loyal Berkeley alum throughout his life. He contributed to the Optometry Building Fund when the school financed its first campus building in 1948 and attended the unveiling of an alumni-sponsored commemorative portrait painting of retired founding dean Ralph Minor in 1952. Hartle was also devoted to the wider community at UC Berkeley. He was proud of the family tradition he started as three of his four children followed him by graduating from Cal—Jeanne, Gretchen and George (daughter Lillian graduated from UCLA). Except for the war years, he attended every Big Game (Cal vs. Stanford) with his wife Kathryn until her death in 1956. To commemorate his love for the Golden Bears, Hartle’s daughter Jeanne and son-in-law Waldo Jackson (Berkeley Optometry Class of ’52) had Dr. Tallman’s name and class year inscribed in a brick destined for The Bear Legacy Wall at the recently renovated California Memorial Stadium.

Although he often worked six days a week, Hartle found time to travel. As early as 1934, he took a trip to South America that included sailing through the Panama Canal. He also explored photography, developing black & white negatives and printing photos in the basement of his home. He especially enjoyed fishing in the High Sierras at Virginia Lakes, where the family vacationed each summer.

In 1962, at age 60, after a trip to Europe with two of his daughters, Hartle Tallman suffered a stroke. He returned briefly to work in his office, but was unable to continue with the optometry practice, which he then sold to his son-in-law Waldo. Dr. Tallman passed away in 1966. Jeanne Tallman Jackson and Waldo Jackson describe Hartle Tallman as a “self-made man who enjoyed life to the fullest and gave back in many ways. Dr. Minor would be proud of his choice.”

Acknowledgments

The author wishes to thank Jeanne Tallman Jackson and Waldo Jackson ’52, for generously sharing information and photographs related to the life and career of Hartle Tallman. Thanks are also due to Professor Gunilla Haegerström-Portnoy, OD ’72, PhD ’83, for her online genealogical search.
Berkeley Optometry Annual Fund Donors (July 1, 2012 to June 30, 2013)

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John E. Eggers ’85

Class year denotes year of OD degree. All other degrees as noted.
Many people make their final gift to Berkeley Optometry their most significant, by including Berkeley Optometry in their estate planning.

The Optometry Associates of the Benjamin Ide Wheeler Society recognizes individuals who have developed an estate plan which will benefit Berkeley Optometry. Planned gifts provide philanthropic support that is essential in enabling the School of Optometry to remain a leader in optometric education and research.
TAKE A SEAT!

Although not every Berkeley Optometry alum can endow* a chair, most of our alums can name a chair. Lecture Hall 489 chairs are now available for naming! Each donation of $1,000 to the “489 Campaign” will be recognized with the installation of a plaque inscribed, on the chair they have endowed, recognizing the name and class year of the graduate being honored by each generous benefactor.

DR. DAN HARVITT, PhD ’97, OD ’00, was the first to buy a seat. Drs. Don Sarver ’71, and Larry Sarver ’80, named three chairs, for themselves and their father, Dr. Mort Sarver ’47. Dr. Larry Thal ’75, made a contribution of two chairs—one for himself and one in honor of his father, Dr. Bernhardt Thal ’48. Dr. Bernhardt Thal and Dr. Mort Sarver were close friends; that each has secured a neighboring seat alongside their sons is quite meaningful.

The funds collected through this campaign will be used continually to modernize and upgrade the Minor Hall 489 classroom. As the School’s state-of-the-art lecture hall, it is critical to the learning environment to keep Room 489 up to date with the most current tools and technology.

In many ways, the room is already unrecognizable to those who sat in these chairs in the early days. Where are the old wooden chairs and desks with ash trays? Chalkboards have been replaced with white boards and slide projectors have been switched out for Wi-Fi-friendly desks, high-definition TV screens, laptop computers and webcasts. There are endless possibilities for future upgrades, which will greatly enhance the experience of current Berkeley Optometry students.

Please consider supporting the learning environment at Berkeley Optometry. For information on naming a seat or modernizing clinical facilities, visit www.optometry.berkeley.edu/name-a-seat-campaign or contact Executive Director of Development & Alumni Relations, Kristen Williams (kristenw@berkeley.edu / 510-642-4491).

* An endowed chair can be established with a minimum gift of $2 million and a distinguished endowed chair for $3 million! Endowed funds typically have a conservative annual payout of about 5 percent in order to protect the purchasing power of the endowment in perpetuity.
MARGARET SINGER STEYER’S original connection to Berkeley Optometry was through her father, Joseph Singer, who received his OD degree in 1938. Dr. Singer, a native San Franciscan, was the first member of his family to attend college. He initially commuted to the campus from San Francisco via ferry, as construction on the Bay Bridge was not completed until 1936. After graduating from UC Berkeley, Dr. Singer was called to duty as an officer in the US Navy during World War II. He served on a ship, providing eye examinations and fitting sailors with glasses. After the war he established an optometry practice in San Jose, where he practiced for over forty years, becoming an active member of the community. In retirement, Dr. Singer volunteered his time examining patients in our Berkeley Optometry clinics until his passing in 2008.

Dr. Singer’s love for UC Berkeley inspired Margaret to pursue a degree in psychology at the university, where she earned her degree in 1975. She initially became involved in Berkeley Optometry’s philanthropic program when she donated some of her father’s optometric equipment and textbooks from the 1930s. Margaret contacted the school to inquire about other ways she could give back. Like her father, many students enrolled in Berkeley have limited financial means. Margaret has generously contributed to endowments that serve to reduce the financial concerns of these students. To facilitate this goal, Margaret established the Dr. Joseph Singer Memorial Scholarship Fund, in honor of her father and his love of Berkeley Optometry. She has also generously supported the mission of Berkeley Optometry by making additional contributions allocated to modernizing and updating clinical equipment.
SUSANA CHUNG, 2012 GLENN A. FRY LECTURE AWARD WINNER

Susana Chung, Associate Professor of Optometry and Vision Science, continues our Berkeley tradition of receiving the highest recognitions at the Annual Academy of Optometry meeting. Sponsored by the American Optometric Foundation (AOF), this award (established in 1970) recognizes a distinguished scientist/clinician for significant and current research contributions. This is the 19th time it has been awarded to a Berkeley alum or faculty member!

Susana Chung, recipient of the 2012 Glenn A. Fry Lecture Award, with AOF President Catherine Amos.

Past recipients of this award help Susana celebrate: (front row, left to right): Tony Adams, Karla Zadnik ’82, PhD ’92, Suzanne Fleiszig, Susana Chung and Don Mutti ’82, PhD ’92.

(back row, left to right): Larry Thibos, PhD ’75 (2012 recipient of the Charles Prentice Medal), Gunilla Haegerstrom-Portnoy ’72, PhD ’83, Chris Johnson, Ian Bailey, John Flanagan and Earl Smith.

THE AMERICAN OPTOMETRIC FOUNDATION proudly announces the 2013-2014 recipients of its prestigious William C. Ezell Fellowships. The Ezell Fellowship program, named after the founding AOF president, William C. Ezell, OD, was established to provide opportunities to talented graduate students who wish to pursue careers in optometric research, education and vision science.

Ezell Fellowships

Daniel R. Coates, MS, Berkeley Optometry PhD candidate
Alfred A. Rosenbloom, Jr. Ezell Fellow

Tan Ngoe Truong, OD ’04, MPH, Berkeley Optometry PhD candidate
AAO Section on Cornea,
Contact Lenses & Refractive Technologies Ezell Fellow

William Scott Tuten, OD, MS, Berkeley Optometry PhD candidate
Merton C. Flom Leadership Ezell Fellow

Wing “Eric” Li, OD ’10, FAAO, Berkeley Optometry PhD candidate
Micheal G. Harris Ezell Fellow

Over 250 fellowships have been awarded since the inception of the program in 1949. Funding for this program is provided by individuals and organizations that support several endowments as well as our corporate partners, including The Alcon Foundation, Bausch + Lomb, Essilor of America, VISTAKON, and the Vision Care Institute, LLC, both divisions of Johnson & Johnson Vision Care, Inc.

Ezell Fellowships from 2012

Mariana Garcia ’14
Alcon Foundation Ezell Fellow

Tatiana Ecoffier ’15
Irvin Borish Essilor Ezell Fellow

William Tuten ’15
Irving Borish Essilor Ezell Fellow

Aaron Sullivan ’15
Merck Ezell Fellow

Eda Altiok ’15
Alcon Foundation Ezell Fellow
NEW CLINIC TO ADDRESS GROWING RATES OF MYOPIA

Berkeley Optometry is truly breaking new ground with the dedication of a clinic aimed at slowing the progression of myopia in children. Research at the school provides much indication that what is becoming an epidemic (myopia) is largely affected by environmental factors that can be mitigated. According to Dr. Christine Wildsoet, “It is connected with the amount of time we spend indoors and working with computers. In countries where people spend more time outdoors, there are lower levels of myopia.” Dr. Maria Liu, Assistant Professor of Clinical Optometry and Vision Science, will direct this new clinic. Early intervention can potentially keep a child from suffering the physical repercussions that can come with nearsightedness. “A specialized clinic is necessary because we want to make sure that patients have the effects of these interventions closely monitored so we can verify that their eyes are slowing in their growth and development of myopia,” says Professor Wildsoet. According to Dr. Liu, “The problem with smartphones and iPads is that kids often hold them closer to their eyes than they would a book, and they can become totally absorbed for hours at a time.”

The new Myopia Control Clinic will not only provide conventional glasses to correct myopia, but doctors will also be offering treatments for controlling the progression of myopia such as special contact lenses and prescribed eye drops. It is believed this is the first clinic of its kind in the United States since the data supporting optical intervention in this way is so new.

2013 COMMENCEMENT

On May 25, 2013, 64 optometry students were conferred the Doctor of Optometry degree, 8 received Doctor of Philosophy degrees in vision science and 2 received the Masters of Science degree. Dean Dennis Levi and Andrew Szeri, Dean of the Graduate Division, conferred degrees. Twenty-two of this year’s optometry graduates are now doing residencies. One-year post-graduate mentored residency programs provide advanced clinical education in specialty areas of optometry in an institutional or hospital-based setting.

HISTORICAL VIDEOS

Historical school videos are now available on the Berkeley Optometry website. One is a digital transfer of a 16mm film promoting the School in 1954. The other is a digital transfer of a VHS tape made to document the School’s 75th anniversary in 1998. These are delightful remembrances of past events. To view the films, visit:

http://bit.ly/1duaJJ4
http://bit.ly/1f6fOYC

2013 WHITE COAT CEREMONY

The ninth Annual White Coat Ceremony, celebrating the passage into the third professional year and patient care was held on May 24. The event was highlighted by the presentation of a white clinic jacket (provided by Alcon) to each of 62 students and included a group recitation of the Optometric Oath.

optometry.berkeley.edu | 25
STUDENT SPOTLIGHT

GLEN ONG ’14

Glen Ong was born and raised in Calgary, Alberta, in Canada. He first considered optometry as a career when his own optometrist diagnosed him with retinal pathology during his adolescent years. He began working as an optometric technician in a busy private practice to learn more about the profession. He later attended the University of Calgary, graduating in 2010 with a BSc in biological sciences. Glen chose to attend Berkeley Optometry, far from his home in Canada, in order to receive the best possible education.

At Berkeley Optometry, Glen has served as the equipment co-chair for his class and as a graduate student instructor for the physics and statistics departments. Beginning as an undergraduate, he has maintained an active interest in research and was given an opportunity to pursue research at Berkeley Optometry through funding from the National Eye Institute (NEI) T35 Summer Research Training Program. As part of the Adams lab, he currently investigates diabetes and its effect on vision and hopes to graduate with research honors. He is also active as a Berkeley Optometry Ambassador and is a member of Beta Sigma Kappa. He participated on the VOSH trip to Nicaragua in 2012. In 2013 and 2014, Glen has externships at the Bascom Palmer Eye Institute in Miami, Florida, and at VA medical hospitals. Upon graduation, Glen hopes to provide exceptional eye care wherever his travels may lead him.

MELISSA LESTER ’13

Melissa Lester, a Colorado native, grew up hiking, camping, climbing, and caving in the Rocky Mountains. Her experiences living in the Netherlands as a child ignited her love for travel and exploring other cultures and communities. As an undergraduate student, she attended the University of Colorado, Boulder, and majored in anthropology and sociology. Melissa stayed in Boulder after earning her degree, working at a used car dealership (but not as a used car salesperson!). A few short years and eye exams later, she discovered her passion for eye care. After a summer of travel in Europe, she began to pursue a career in optometry by obtaining a position in a local private practice, earning her ABO certification, and working as an optician while completing her prerequisite course work. She began her studies at Berkeley Optometry in 2009.

Melissa has remained active during her time in the Bay Area, both within and outside of the Berkeley Optometry campus. She has enjoyed working with prospective students through the Berkeley Optometry Opto-Camp program and has been involved with many aspects of the application process as well as Interview Day. Outside of class and her time in the clinic, Melissa finds balance in her life through bouldering and slacklining with friends.

She has greatly enjoyed combining optometry with her love of travel through her involvement with the VOSH program. Melissa has been fortunate to participate with VOSH-Connecticut on their mission to San Juan del Sur, Nicaragua, during three of her four years at Berkeley Optometry. She hopes to continue her involvement with VOSH and international optometry throughout her career. As a Berkeley Optometry alumna, Melissa is excited to continue her education as a resident at the Northern Navajo Medical Center in Shiprock, New Mexico. By working with the Indian Health Services, she looks forward to providing optometric care to those in need within our own country.
CHRIS JOVEZ ’15

Raised in Vallejo, California, Chris Jovez has enjoyed an athletic lifestyle, playing both tennis and basketball as well as swimming and exploring a variety of martial arts. Undisturbed by any significant refractive error himself, Chris was at first skeptical about the profession of optometry, believing that “poor vision” was just a ploy by doctors to make patients dependent on glasses. He held strongly to this view until his third year of undergraduate school at UC Davis, when he learned that some of his friends were pursuing a career in optometry.

Wanting to learn more, Chris began to research the profession of optometry, the anatomy of the eye, and the pathways of vision. His curiosity soon turned into a passion. His desire to educate the public about the importance of vision care and the significance of optometry led him to volunteer for Foresight, Unite for Sight, Prevent Blindness, Lions Club, OneSight, and Sacramento’s Homeless Connect. With an interest in gaining an even deeper understanding of the profession, Chris volunteered at Katz and Kline Optical Lab, Davis Optometry, and UC Davis Medical Center. He also worked at LensCrafters. Through these various experiences, Christopher witnessed first-hand the excitement people feel when they finally experience visual clarity and comfort. He resolved to become a doctor of optometry.

Berkeley Optometry was at the top of his list of optometric institutions because of its illustrious reputation as a challenging program. Chris has survived his first two years at Berkeley Optometry, a challenge he offset by taking advantage of the many attractions the UC Berkeley campus has to offer and its proximity to beautiful locations like San Francisco, Lake Tahoe, Sacramento and Southern California. In addition to traveling throughout the state, Chris enjoys making comical optometry videos, volunteering at his old martial arts dojo in Vallejo and being an active member in the local Private Practice Club and Opto Spanish Club. Chris looks forward to passing his upcoming exams and choosing exciting external rotations!

MEREDITH TURNER ’16

Meredith Turner was born and raised in Redding, California, and, despite living in the Bay Area for more than fifteen years, she still considers herself a small town girl. As a young girl, she was always quite passionate about science. Even in kindergarten, Meredith knew she wanted to be a doctor. After graduating from high school, she attended UC Davis, earning a degree in genetics with a minor in psychology. She initially intended to pursue a medical degree. At UC Davis, however, she got her first taste of research, studying the genetic influences on fertility in mice, and resolved to pursue a career in research after graduation, whereupon she immediately landed a job at a top pharmaceutical company in Palo Alto. She worked in pharmaceutical research for fourteen years, an experience that offered many diverse and stimulating opportunities to be involved in the drug discovery process. During this time, she married and she and her husband had three beautiful children. As the years passed, she realized that her childhood dream of becoming a doctor was still alive, and with the knowledge that “life is what you make of it,” she decided to pursue her dream.

It didn’t take long for Meredith to set her sights on optometry, as she has benefitted from a vision correction since grade school and has always admired her optometrist. As a student at Berkeley Optometry, Meredith is eager to learn about the visual process and the skills it takes to be a skilled clinician. In just the first year of the program, she helped educate children about eye disease with UCOSA Philanthropy, participated as a student panelist at the 2012 Fall Conference and evaluated candidates for the Class of 2017 at Interview Day. She looks forward to the many experiences still to come in her next few years at Berkeley Optometry!
**HARRY GREEN, OD ’08**

Originally from Davis, California, Harry Green moved frequently during his childhood and adolescence, which gave him the opportunity to live in many fascinating places, including Melbourne, Australia, and New York State. His family eventually settled in Southern California, where he attended the University of California, Riverside, as an undergraduate. After receiving his BS in biology, Dr. Green pursued doctoral studies at the California Institute of Technology in Pasadena. Nearing the end of his PhD program, he shifted his focus from research to clinical work and enrolled at Berkeley Optometry. Upon graduating in 2008, he elected to stay at Berkeley Optometry to complete a residency in primary care and ocular disease. He subsequently joined on as a faculty member, serving as a part-time clinical instructor and part-time researcher in the Clinical Research Center with Dr. Meng Lin, PhD ’02.

In August 2009, Dr. Green became a UC Berkeley Credentialed Consultant for the UC Berkeley Digital Health program, acting as a consultant in teleretinopathy screening (web-based diabetic retinopathy screening) using the Eye Picture and Archiving Communication System (EyePACS) web interface developed by Dr. Jorge Cuadros, ’80. Dr. Green’s work in this program led to his position as Director of Clinic Outreach at UC Berkeley Digital Health, which he took on in the summer of 2010. He is able to blend his work in this role with his clinical teaching of third-year optometric interns at the Tang Eye Center. Dr. Green is passionate about developing the diabetic retinopathy telemedicine program, which now involves more than 50 primary care community and safety net clinics, encompassing most of California. He hopes to expand the scope of the program to include, in addition to screening for diabetic retinopathy, screening for other ocular conditions such as glaucoma, cataracts, maculopathy and vascular occlusion. Dr. Green is also quite interested in utilizing technology and the Internet to enhance optometric education for both current optometry students and actively licensed optometrists who wish to pursue continuing education.

Although his academic interests take much of his time, Harry’s family is a significant part of his life. He and wife Shelley, a post-doctoral scholar in the Department of Cell and Molecular Biology, are the dedicated parents of two young daughters, Mikaela and Colette. Together they live in Albany, California, which provides easy access to the UC Berkeley campus, while also providing them with some distance from the hustle and bustle of campus life.

**SHERYL L. GUILLORY, OD ’11**

Sheryl Guillory began as a clinical instructor at Berkeley Optometry in August 2012, primarily supervising third- and fourth-year clinicians in the Medical Eye Clinic at the Meredith W. Morgan University Eye Center. She also serves as an attending for fourth-year interns at the Eastmont Wellness Center in Oakland, California. These clinics provide patients with primary care as well as treatment and management of glaucoma and other ocular conditions related to systemic disease.

Dr. Guillory is a Bay Area native, born in San Francisco and raised in Richmond and Hercules. She studied sociology at UC Berkeley, graduating in 2006. She obtained her OD degree from Berkeley Optometry in 2011. In 2012, Dr. Guillory strengthened her clinical foundation by completing a residency program at the Department of Veteran Affairs, New York Harbor Healthcare System, Brooklyn and St. Albans campuses. There, she trained under the supervision of Murray Fingeret, OD, and Evan Canellos, OD, with an emphasis on glaucoma management, from newly diagnosed to advanced and end-stage cases, as well as the diagnosis and management of diabetic and hypertensive retinopathy, uveitic disease, traumatic brain injury management and vascular occlusive conditions. At the VA, Dr. Guillory completed over 2,000 patient encounters; worked with retinal, glaucoma and oculoplastics specialists; and participated in ophthalmology grand rounds on the Brooklyn campus and at SUNY Downstate. Throughout her residency, she served as preceptor and instructor for fourth-year interns from numerous schools of optometry, and facilitated a presentation on Posner-Schlossman Syndrome, also known as glaucomatocyclitic crisis, and a Council on Optometric Practitioner Education (COPE)–approved lecture entitled “Central Corneal Thickness: Inter and Intra Instrumental Repeatability and Its Affect on Glaucoma Management” at SUNY’s Annual Residents’ Day Program.

Sheryl loves spending time with her family and friends, including her 2011 classmates who are also Berkeley Optometry faculty members (David Leong, Carol Chan, Linh Le, Melanie Mason and Pam Satjawatcharaphong, also profiled in this issue). She is a food and beer fanatic, movie enthusiast and fervent Bears fan. Go Bears!
MIRA LIM, MD

Mira Lim grew up in St. Louis, Missouri, but spent most of her summers visiting extended family in Thailand, her parents’ home country. Inspired by her father’s work as a doctor, Dr. Lim knew from a young age that she wanted to attend medical school, a dream she actualized at Tufts Medical School in Boston, Massachusetts. She decided to focus on ophthalmology because it provides the opportunity to care for patients of all ages, both healthy and unhealthy, and to practice both medicine and surgery. Dr. Lim completed her ophthalmology residency at the New York-Presbyterian/Weill-Cornell Medical Center in New York, New York, and then moved back to Boston as a fellow in cornea and external disease/refractive surgery at Harvard Medical School/Massachusetts Eye and Ear Infirmary. While completing her fellowship in Boston, Dr. Lim had the unique opportunity to train with the legendary Claes Dohlman, MD, inventor of the keratoprosthesis (artificial cornea). She learned how to implant the keratoprosthesis and manage difficult cases in which patients at risk of blindness and suffering from various conditions, including chemical burns, HSV, limbal stem cell failure or failed corneal transplants, could benefit from an artificial cornea. She received invaluable experience treating challenging corneal diseases and participated in fascinating refractive surgery cases.

Married life brought Dr. Lim to the beautiful East Bay. She began a partnership with Drs. David Vastine, David Demartini and Timothy Sanders, ’74, at the Northern California Cornea Associates, where she still practices. In May 2012, Dr. Lim joined Berkeley Optometry as a part-time clinical faculty member. She enjoys all aspects of teaching and, in addition to her faculty position at Berkeley Optometry, assists with resident training at California Pacific Medical Center. She also serves as a diplomate of the American Board of Ophthalmology.

At home, Mira’s two young boys keep her and her husband busy. Her husband is a California native who works in the technology industry in San Francisco. In her free time, she enjoys hiking and exploring the many amazing culinary options available in the Bay Area.

PAM SATJAWATCHARAPHONG, OD ’11

Pam Satjawatcharaphong is a Bay Area native, born in San Francisco and raised in San Mateo. In 2006, she graduated with a BA in molecular and cell biology from UC Berkeley and then decided to continue her graduate education at Berkeley Optometry. During her studies, Dr. Satjawatcharaphong became involved in humanitarian services, helping to lead a VOSH trip to Thailand—home to much of her own family. She also acted as University of California Optometric Student Association philanthropy chair and recruited student volunteers for local vision screenings and weekly Suitcase Clinics. Her fourth-year externships included La Clinica de la Raza, in Oakland, California, the San Francisco Veteran Affairs Medical Center and Castle Eye Clinic at Atwater. She received her OD from Berkeley Optometry in 2011.

Following graduation, Dr. Satjawatcharaphong completed a year-long cornea and contact lens residency at the Southern California College of Optometry (SCCO), during which she managed patients with irregular corneas (keratoconus, pellucid marginal degeneration, post-surgical), infants with aphakia secondary to congenital cataracts, and individuals requiring prosthetic reform eyes. She has a particular interest in scleral gas-permeable contact lenses, which are larger in diameter than corneal lenses, and is a fellow of the Scleral Lens Education Society. Dr. Satjawatcharaphong has led hands-on workshops and lectured at several continuing education programs on this topic. While at SCCO, she particularly enjoyed her time “attending” in the third-year contact lens clinic, leading grand rounds seminars, and holding journal club meetings. Dr. Satjawatcharaphong’s experiences during her residency reaffirmed her passion for teaching and helped direct her future career goals.

In the summer of 2012, she returned to Berkeley Optometry to join the clinic faculty. She teaches primarily in the Contact Lens Clinic, but also spends time in the Primary Care Clinic and the Clinical Research Center (CRC). This past summer she began co-mentoring a contact lens resident and managing cases requiring specialty contact lens fittings. Dr. Satjawatcharaphong finds teaching both challenging and rewarding and greatly enjoys getting to know her students.

Dr. Satjawatcharaphong plans to continue working with specialty contact lenses and to explore her interest in myopia control and dry eye syndrome. A firm believer that education continues long after schooling ends, she strives to keep learning and plans to sit for her fellowship in the American Academy of Optometry this year in Seattle. She also hopes to join another VOSH trip eventually so she may continue serving underprivileged populations requiring eye care.

Pam spends her free time playing with her two dogs, watching Bay Area sports and catching up with friends. She enjoys both cooking and exploring the diverse cuisine in the Bay Area. She also loves to sing and probably knows the words to every song on the radio!
We are proud to welcome John Flanagan as our eighth Dean.

PROFESSOR (AND NOW DEAN) JOHN FLANAGAN is a professor at the School of Optometry and Vision Science, University of Waterloo, and the Department of Ophthalmology and Vision Sciences, University of Toronto. He is Director of the Glaucoma Research Unit, Toronto Western Research Institute, and a Senior Scientist at the Toronto Western Hospital, University Health Network. He is a therapeutically qualified clinician with over 30 years of experience and a special interest in glaucoma management. He graduated in Optometry and Vision Sciences from Aston University, Birmingham, UK, in 1980, where he earned his PhD in 1985.

He has held continuous federal research funding for over 25 years from the Canadian Institutes of Health Research, with additional research funding from the American Health Assistance Foundation and the Glaucoma Research Society of Canada. He has supervised 42 graduate students and has authored over 145 peer-reviewed publications. In addition, he has published 10 book chapters and 3 books, and has given numerous invited lectures around the world. His research interests include basic mechanisms of human glaucoma (glial cell activation, proteomics and neuroprotection), ocular imaging, clinical psychophysics, 24-hour intraocular pressure, ocular blood flow and studies of vascular reactivity. Awards include Certificate of Merit for Research Excellence, Glaucoma Research Society of Canada; Claire Bobier Lecture, University of Waterloo; Springer Lecture, University of Alabama; the Glenn A. Fry Award from the American Academy of Optometry; Outstanding Performance Award, University of Waterloo, 2008 and 2013; the 2011 Institute of Medical Science Mel Silverman Mentorship Award, Faculty of Medicine, University of Toronto; and Dario Lorenzetti Lecture, Department of Ophthalmology, McGill University, 2013. He was a founding member of the Optometric Glaucoma Society, was the Program Chair from 2002 to 2007, OGS President from 2007 to 2012, and is currently the OGS Executive Vice President. In 2008, he was appointed Chair of the Clinical Research Ethics Committee at the University of Waterloo. He has also served as a Governor and Senator at the University of Waterloo and was a member of the Senate Executive Committee. He is currently a member of the Eye Health Council of Ontario.

Dean Flanagan is married to Kathy Dumbleton, PhD, MSc, MCoptom, FAAO, FBCLA, current President of the American Optometric Foundation (AOF) and Head of Clinical Research at the Centre for Contact Lens Research, University of Waterloo. They have two daughters, one with an MA in anthropology and one in her final year of medical school.

We expect that Dean Flanagan will wrap up his current responsibilities and move to Berkeley in June 2014.
IN HONOR OF DR. ROY BRANDRETH, Berkeley Optometry established the “Dr. Roy Brandreth Optometric Equipment Fund” with the goal of raising $600,000, to be matched by the UC Berkeley Office of the Chancellor. Dr. Brandreth served as Director of Clinics from 1980 to 1988, during which time his work was instrumental in the development of the clinic program that exists today, particularly in the growth of the teaching program and patient care.

Roy passed away last November with his wife, Professor Emeritus Karen Walker Brandreth, by his side. Roy was born in Calgary, Alberta, Canada, where he developed a passion for hockey, at which he greatly excelled. While in college, Roy’s hockey prowess caught the interest of the Toronto Maple Leafs, who signed him to their professional hockey team. World War II interrupted Roy’s sports career, as he was called into military service. He joined the Royal Canadian Air Force, earning his wings as a bomber pilot and navigation instructor. Upon discharge from the service, Roy enrolled at Berkeley Optometry, graduating in 1953.

Roy practiced for over thirty years, with offices first in Oakland and later in Pittsburg, California. It was during the mid-1950s that he and several other local optometrists developed the idea of a prepaid vision plan. Initially, the program was called California Vision Service (CVS) and was later renamed Vision Service Plan (VSP). Today VSP is the world’s largest provider of prepaid vision care.

Roy was honored by the Berkeley Optometry Alumni Association as “Alumnus of the Year” in 1985 and by the California Optometric Association in 1984 as “Optometrist of the Year.” In 2007, he was inducted into the University of California, Optometry Hall of Fame. While a member of the faculty, he wrote and self-published a textbook, Clinical Slit Lamp Biomicroscopy. With wife Karen, Roy completed a second book, not yet published, which expands on the original text.

Berkeley Optometry is thrilled to report that we have met the goal of $600,000 through donations made by generous alumni and friends. Additionally, the full amount raised was matched by the UC Berkeley Office of the Chancellor, giving us a total of $1.2 million dollars dedicated toward maintaining cutting-edge technology and equipment for the purpose of providing outstanding patient care and clinical training.

Based on the overwhelming response of our alumni and friends to the Dr. Roy Brandreth Optometric Equipment Fund, the Chancellor has agreed to bring his support upstairs in Minor Hall. Keep an eye out for information on how you can assist us as we activate the student learning environment on the ground floor of Minor Hall and beyond!
61 **Terry Feigenbaum**

sold his practice and retired in January 2006. He and wife Gail have been dividing their time between their home in West Los Angeles and a condo in Newport Beach. They have been blessed with four grandchildren and recently visited their youngest son, Eric, his wife Yuka, and their two granddaughters in Tokyo. Eric has lived in Japan for almost twenty years after graduating Berkeley, where he received his bachelor's degree, and Stanford, where he received his MBA. Terry and Gail enjoy taking long trips at least once a year. Even though they live in Southern California, they still maintain season tickets for all the Cal football games and visit Berkeley at least 4 to 5 times per season over the past 20 years or so.

Terry Feigenbaum '61

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65 **Weylin Eng**

recently received the Frank G. Mar Award for Community Service. The award recognizes the long-term service that both he and his family have provided to the city and residents of Oakland, CA. Specifically, Weylin was thanked for support given to the Oakland Zoo, Children’s Fairyland, Boy Scouts of America, Children’s Hospital, the Senior Citizen Center and the East Bay Community Foundation. The award was presented by the City of Oakland and Family Bridges, Inc.

Weylin Eng '65 with Oakland Mayor Jean Quan

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75 **Richard Hom**

is currently the National Optometric Director for WellPoint, the parent company for Anthem and Blue View Vision. He also sits on the Health Care Services Delivery System Committee of the California Optometric Association.

Richard Hom '75

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76 **John Funnell**

recently returned to the US after a five-week bike trip from Athens to Paris with his eldest son, Forrest. One highlight of the journey was a long ride along Canal du Midi (pictured). The canal was built to transport goods safely from the Atlantic near Bordeaux to the Mediterranean at Sète.

One can rent a barge to travel along the canal or take a river cruise. John and Forrest biked alongside many recreational hikers and bikers, as well as bike touring groups. One solo rider encountered had a trailer carrying his dog and cat! The trip would not have been possible without...
the recent addition of Dale Choi ’11 to John’s practice, Manhattan Beach Vision Group.

Canal du Midi

79 After five years of living under the bright lights of Las Vegas, Janet Carter has returned “home” to Reno. Janet and husband Jerry are enjoying fixing up their house and garden, and are very much appreciating the cooler summers in Reno.

They are also excited to once again be within an easy day’s drive of Berkeley, so hope to be at more football games come fall (not to mention the Washington game in Seattle the same weekend as the Orleans and was thrilled to be and are very much appreciating the of Berkeley, so hope to be at more again be within an easy day’s drive cooler summers in Reno.

The family had a blast in New Orleans and was thrilled to be joined there by Janet’s father, Darrell Carter, PhD ’54 (and former Berkeley Optometry faculty member), and stepmom Mary Kate.

Andre has now started his residency in Internal Medicine at Stanford Medical Center. Although he has crossed over to the “dark side,” his parents are thrilled to have him closer to home. However, they do greatly miss his big brother Edward, who is currently living and working abroad in Tokyo, Japan. The family’s next adventure will be a trip to visit him, possibly coinciding with Janet’s round birthday next February.

79 Phillip Schmitz has started a new life in Lawrenceville, GA (near Atlanta) with new wife Gail. Phil and Gail originally fell in love while attending college (UC Berkeley and UC Davis, respectively), before Phil lost his way in 1972.

The two were able to reconnect over the Internet in 2010 after divorces, children for Gail and many other life lessons. They first reunited over the phone, then through Baltimore/Atlanta visits, and finally married in 2012. Phil would like to wish his Berkeley Optometry family, the “Starship Enterprise crew,” the rest of the trekkies from the class of ’79 and those who came before and beyond, all the blessings of life—GO BEARS!

80 John Merslich was elected to serve as a board member for Group Health Physicians, headquartered in Seattle, WA.

John was the first non-MD ever to be elected to serve on the board. Group Health Physicians is among the largest and most honored multispecialty group practices in the Pacific Northwest, comprised of nearly 1,400 physicians, PAs, midwives, mental health specialists, osteopaths and optometrists focused on prevention, evidence-based practices and patient-centered care.

81 Nick Kazarian recently celebrated his 31st anniversary of entering into private practice in a rural area of Fresno County. Nick continues to farm grapes for raisin production in his time away from the office. In 2011, his son, Nicolas, graduated from UCLA with a bachelor’s degree in political science, and in 2012, Nick’s daughter, Natalie, graduated from Cal with a bachelor’s in neuropsychology. Nick and wife Lorraine enjoy coming back to campus for Cal football games (particularly those resulting in victory) and thoroughly enjoy the new stadium. Go Bears!

Michael McDermott just started his 16th year of restoring the USS Hornet aircraft museum in Alameda, CA.

82 Karla Zadnik, PhD ’92, and Andrew Emch, who completed his residency at Berkeley Optometry in 2009, headed to the University of Gondar in Ethiopia this past July to teach at a nascent school of optometry. Andrew taught in the optometry program, while Karla taught research ethics. Karla kept a blog of their adventure, which can be found online at http://ohiostateethiopia.wordpress.com.

Congratulations to Karla on her appointment as Dean of The Ohio State University School of Optometry!
Anita Scheifler-Brew ’85 and David Brew ’82 participated for the third time at the LensCrafters’ annual OneSight Mission to National City, CA. Through this program, Anita and David assisted, along with eight other doctors, nearly 2,000 children. “This is what we eye doctors live for,” says David, “changing a life.” The pair also adopted a blind seven-year-old golden retriever this past February!

Classmates Karin Meng and Blake Kuwahara traveled to Dublin, Dubrovnik, Montenegro and Bosnia during their 2013 spring break.

Germaine Noel Burke and Jerome Burke (SCCO class of ’76) married in 2002. After working many years for other doctor groups, the two decided to launch a joint venture—Burke Optometry. They bought a building in Lodi, CA, and after much remodeling (including the installation of solar panels), opened for business on August 6, 2012. The practice promotes energy conservation, recycling and use of EHR and laminated forms to reduce paper use and waste. Germaine and Jerome are fortunate to have employed a friendly and efficient staff and use all the latest technology throughout their eye examinations. Visit www.burkeoptometry.com.

Luke Small was honored with the inaugural Manitoba Optometrist of the Year Award for 2012. This award was given in recognition of his work with the Canadian National Institute for the Blind (CNIB), of which Luke is on the provincial board and on the National Program and Services Committee; Siloam Mission, a homeless shelter in downtown Winnipeg where Luke and other optometrists established the first optometric clinic in a homeless shelter in Canada; and the provincial associations public relations and communications committee.


Stephanie Graziani married long-time love Nick Graziani on January 26, 2013. The two met at a Double Vision event during Stephanie’s second year of optometry school, but it wasn’t until they ended up on the same intramural volleyball
Since graduating from Berkeley Optometry, **Scott Bartlett** has been on quite the adventure! In the madness of the residency post-match, Scott decided to move to Crownpoint, NM, and work with Indian Health Services (IHS).

He spent one year in an isolated community living in half a doublewide trailer on the Navajo reservation, which he considers to be one of the most challenging and rewarding experiences of his life.

Scott still keeps in touch with many of his colleagues there and hopes to continue with the public health service sector in some capacity. Scott was so enthralled by IHS that he moved to Albuquerque a year ago and now works for Pueblo of Isleta Health Center, a tribal run facility just south of Duke City. Being the only OD on site, this position feels much like an extended residency, but it keeps him on his toes!

New Mexico has much to offer both professionally and in terms of recreation. There are many outdoor activities, and Scott continues to learn about the diversity of the 19 pueblos in New Mexico. He has been fortunate to attend various cultural events and feast days put on by different tribes. The one big event, a must in Albuquerque, is the International Balloon Fiesta held every year in early October. Scott wishes his classmates well in all their professional and personal endeavors. GO BEARS!!

**Gloria Chow** has been chosen as the 2013 recipient of the Douglas W. Hopkins Primary Care Residency Award. This award, which is delegated by a committee of primary care optometrists and the American Optometric Foundation (AOF), recognizes the practice and development of the field of Primary Care Optometry by providing incentive and support to talented optometric residents who demonstrate a passion and commitment to practice, research and education in primary care. Gloria is currently a primary care resident at the State University of New York College of Optometry (SUNY).

**Hector Duenas ’12** earned the Award of Excellence in Contact Lens Patient Care.

Congratulations to **David K. Murakami ’12** for attaining the Sheldon Wechsler Contact Lens Residency Award.

**12**

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After graduating from Berkeley Optometry, Dr. Simmons moved to Santa Cruz, California, where he opened his own practice, which he greatly enjoys. Four years ago, he was approached about Project Homeless Connect (PHC). PHC started in San Francisco in 2004. Held once a month, PHC was created when Mayor Gavin Newsom challenged county workers to create a better system of care for the homeless. Since its implementation, the program has spread to over 220 cities, including Santa Cruz. The goal of PHC is to address the short-term needs of individuals by connecting them with services that help them access more long-term care solutions.

The national best practice model expanded to Santa Cruz in early 2010. With a growing homeless population owing to the economic downturn, it was apparent that Santa Cruz would benefit from Project Homeless Connect. The Santa Cruz PHC event is held in the Civic Auditorium once a year. The event provides services such as haircuts, job placement, mental health care, substance abuse treatment, dental care, vision care, California identification cards, HIV medical testing, bank accounts and more.

Dr. Simmons coordinates the vision services program for PHC Santa Cruz. During the 2013 event, Dr. Simmons and his team connected with 350 people, providing:

» 80 comprehensive eye examinations by members of MBOS and Advanced Eye Care Associates
» 200 reading glasses (courtesy of Ron’s Optical)
» 300 sunglasses (courtesy of Lions Club International)
» Eyeglass frames (courtesy of Marchon Eyewear)
» Ophthalmic laboratory work (courtesy of Ocular, VSP and the Monterey Bay Optometric Society)

Dr. David Turetsky ’81, Curt’s colleague from the Monterey Bay Optometric Society (MBOS), provides the mobile exam equipment and trains volunteer optometrists in mobile examination techniques. This partnership gives the two doctors the flexibility to participate in programs such as PHC to better serve their local community. Dr. Simmons and his colleagues believe they have a moral obligation to pursue opportunities that utilize their specialized eye-care skills and training to benefit those in need.

Maganne Hoisington
IN HONOR of those alumni and retired faculty whose contributions to the profession of optometry, through service, teaching or research have been so monumental as to be universally recognized, the School has dedicated the “Hall of Fame.” These individuals made contributions that distinguish the University of California, Berkeley, School of Optometry above all others!

The latest inductees to Berkeley Optometry’s Hall of Fame, Class of 2013, are listed here. We are extremely proud of all of those who have distinguished our school as alumni and former faculty.

**Charter Members Inducted in 2002**
- Solon Braff
- Irving Fatt
- Merton Flom
- Allan Freid
- Edward Goodlaw
- Monroe Hirsch
- Jack Hobson
- Elwin Marg
- Frederick Mason
- Edwin Mehr
- Ralph Minor
- Meredith Morgan, Jr.
- Henry Peters
- Morton Sarver
- George Schneider
- Kenneth Stoddard
- Bernhardt Thal
- Gordon Walls

**Members Inducted in 2008**
- Horace Barlow
- Roy Brandreth
- Russell DeVlois
- Gordon Duffy
- Jay Enoch
- Gordon Heath
- Richard Hill
- Arthur Jampolsky
- Robert Lester
- Robert Mandell
- Kenneth Polse
- Marvin Poston
- Charles Seger
- Lesley Walls

**Members Inducted in 2013**
- Tony Adams
- Colin Blakemore
- Darrell Carter
- Theodore Cohn
- Edward Elliott
- Ralph Freeman
- Michael G. Harris
- Donald Korb
- Sheldon Miller
- Donald E. Mitchell
- Thomas Peters
- Lawrence Stark
- Karen Walker Brandreth
- Frank Weymouth
- Gerald Westheimer
- Frank Weymouth
Applications were steady this year as we collected 238 applications for Fall 2013 entry. Our Interview Day in 2014 is scheduled for early February and we will be introducing the use of Multiple Mini-Interviews (MMIs), as a part of the event and to use as part of our overall holistic file review.

Our quality remains high, as reflected by the incoming Class of 2017: average OAT AA = 348; Biology/Chemistry/Physics GPA = 3.43, respectively. There are 50 women and 16 men in the entering class, 16 out-of-state students, which includes 5 Canadians.

A WHOPPING 60 PERCENT of Berkeley Optometry students reported that a nonrelative optometrist most influenced their decision to enter into the study of optometry. Clearly, alumni have a tremendous capacity to help inform prospective Berkeley Optometry students—not only about the profession, but also in offering application advice.

The Admissions and Student Affairs Office appreciates alumni referrals and is more than happy to offer additional advising services to all pre-optometry students who are shadowing and/or interning under the supervision of a licensed optometrist. The application process for all optometry schools in the US is now run through the Optometry Centralized Application Service (OptomCAS). By utilizing a common application service, prospective students file one application that can be sent to multiple schools and colleges of optometry. In addition to the use of the OptomCAS application service to streamline the process, the Berkeley Optometry website is a great starting point for prospective students. We list where Berkeley Optometry representatives will be visiting in-person and when we can be reached via webinar, and we provide information regarding our Friday Visit Program for those who will be in the Bay Area. We also offer useful application tips through our “Timetable for Admissions” web page and even have a section dedicated to Application Etiquette, so your optometry-bound prospects are sure to be prepared and professional in their interactions with us and other top-flight programs.

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To learn more about the admissions process, or about student affairs at Berkeley Optometry, please contact:
Admissions and Student Affairs Office
380 Minor Hall
(510) 642-9537
Email: optometry-admissions@berkeley.edu
Website: http://optometry.berkeley.edu/admissions/admissions-introduction-and-overview
EACH YEAR, the UC Berkeley Optometry Continuing Education Office certifies over 15,000 continuing education (CE) hours for optometrists, making it the largest program at an accredited optometry school in North America. The program is continually expanding to meet the ever-changing needs of today’s optometrists. Highlights of these efforts include:

Berkeley Practicum and Morgan/Sarver Symposium—These two premier annual CE programs put on by Berkeley Optometry provide the latest information on the most clinically relevant topics facing optometrists today, including ocular disease and treatment, systemic disease and their ocular manifestations, as well as exciting new research and key developments in vision care.

Berkeley Glaucoma Day—This new five-hour CE program takes place on the Friday afternoon of the Morgan/Sarver Symposium. It is dedicated to the detection, diagnosis, treatment and management of glaucoma and provides the latest updates on pharmaceutical, surgical and technological advances, while also helping glaucoma-certified optometrists fulfill their ten-hour renewal requirement.

Berkeley Anterior Ocular Disease Day—Based on the success of Berkeley Glaucoma Day, this new four-hour CE program will take place on the Monday morning of the Berkeley Practicum. The information, updates and cases will concentrate on the diagnosis and treatment of anterior ocular disease, including conjunctivitis, uveitis, keratitis, corneal ulcer, dry eye and trauma.

Other CE programs managed by our clinical faculty, vision science faculty and the Office of Development and Alumni Relations include the annual Berkeley Optometry CE Conference and Reunion Celebration, Glaucoma Grand Rounds, the Translational Research Conference, and the Berkeley On-Line Lectures and Demonstrations (BOLD).

Directed by Patsy Harvey, OD, MPH, ’81, and coordinated by Danni Peck, MBA, CMP, the Continuing Education office aims to consistently provide a variety of high-quality courses for optometrists, to expand their knowledge as well as fulfill the requirements of licensure renewal for the California State Board of Optometry.

OVER 600 OPTOMETRISTS took part in the educational and entertaining weekend at the 28th Annual Morgan/Sarver Symposium in April 2013. The program’s highlight was Friday’s inaugural Berkeley Glaucoma Day presented by Carl Jacobsen, OD ’92, and Todd Severin, MD, of the Berkeley Optometry Eye Clinic.

The day also provided an opportunity for optometrists, faculty and students to socialize at the Berkeley Glaucoma Day Reception, hosted by the Berkeley Optometry Office of Development and Alumni Relations, with the backdrop of the setting sun on the Berkeley Marina.

Thanks to an overwhelmingly positive response, the Berkeley Glaucoma Day and Reception will return next year. Mark your calendar for Friday, May 2, 2014.

UC Berkeley Optometry Continuing Education Office
388 Minor Hall, Berkeley, CA 94720-2020
800-827-2163
optometry.berkeley.edu/ce
optoce@berkeley.edu

SPOTLIGHT: BERKELEY GLAUCOMA DAY

Dr. Todd Severin presents at Berkeley Glaucoma Day.

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• a mobile-ready platform to stay connected
• new courses to stay current and earn CE credit

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THE BERKELEY OPTOMETRY ALUMNI OFFICE was abuzz throughout the 2012–13 school year! We hope that you were able to stay up-to-date on Berkeley Optometry news through our quarterly e-newsletter (if you are not currently receiving this online publication, please email optoalumni@berkeley.edu to be added to the email list).

We also had the opportunity to connect with many at alumni programs and events! Here are some highlights from the past year; we hope to see our alumni at future alumni events!

Each fall the Berkeley Optometry Alumni Association hosts our annual Berkeley Optometry CE Conference and Reunion Celebration. With more than 165 participants at the conference and 325 at the reception and dinner honoring reunion class years, this event has been established as the premier tradition for the Berkeley Optometry community. Don’t miss this unique CE opportunity and the following celebration.

In addition to the CE Conference and Reunion Celebration, our alumni have many opportunities to connect socially and professionally at various optometric conferences and meetings throughout the year. We are pleased to continue the tradition of hosting student/alumni receptions at Optometry’s meeting in the summer and the Academy meeting in winter. You may have also seen us at the COA House of Delegates and OptoWest. We look forward to seeing you soon, on campus and abroad!

In the past year, Berkeley Optometry has launched an alumni Facebook page where we post event photos and provide Berkeley Optometry campus updates (www.facebook.com/BerkeleyOptometryAlumni). We also host a LinkedIn group designed to foster meaningful professional connections within the Berkeley Optometry community. Join now to stay connected to your Berkeley alumni community!
OUR DEVELOPMENT AND ALUMNI RELATIONS TEAM strives to provide programs and services that encourage our alumni to grow, connect, share and lead. We aim to maximize alumni engagement and investment in Berkeley Optometry. We look to strengthen traditions, while adding programs and services that provide value for our diverse alumni population. From our signature Reunion and CE event, to this very magazine, everything we do strengthens Berkeley Optometry and its community.

Wherever you are, whatever you may be doing, Opto Bears, we hope to see you soon at one of our upcoming alumni or CE events. For more information, please e-mail optoalumni@berkeley.edu or call 510-642-2622.

The Berkeley Optometry Development and Alumni Relations Office is made up of (from left to right) Kellie Rogers, Associate Director of Development; Kristen Williams, Executive Director of Development & Alumni Relations; Larry Thal, Assistant Dean, Development & External Relations; and Sarah Segal, Associate Director of Alumni Relations.

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YOUR GIFT OF APPRECIATED SECURITIES to Berkeley Optometry may support student training, world-class faculty or transformative research. Whichever you choose, you will help to preserve and enhance Berkeley Optometry’s excellence—and allow it to keep its place at the pinnacle of optometric education and delivery of optometric care to underserved communities.

At the same time, the double tax benefit of a gift of appreciated securities to Berkeley Optometry allows you to avoid capital gains tax while receiving a charitable income tax deduction for the stock’s current fair market value, not just for what it was worth when you acquired it.

For more information on making a planned gift to Berkeley Optometry, contact the Office of Gift Planning at 800-200-0575 or ogp@berkeley.edu, or visit the website givetocal.berkeley.edu/giftplanning.
The Class of 2013.