Volume 6, No. 1 • Spring 2008 <u>envisored Strandon Strandon Strandon</u>

News from the University of California, Davis, Department of Ophthalmology & Vision Science

1968 - 2008

envision 40 Years of Excellence is published by the CONTENTS

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FROM THE CHAIR'S DESK Mark J. Mannis, M.D., F.A.C.S.

40 Years of Excellence: The UC Davis Department of Ophthalmology & Vision Science 1968-2008

The modern technology currently used in eye surgery at the UC Davis Medical Center is a far cry from the gas lit operating room of Sacramento's Central Pacific Railroad Hospital in 1889. But it was in that setting that the city's preeminent and first full time practicing ophthalmologist, William Ellery Briggs, M.D., introduced what was then the latest development in surgical instrumentation, the ophthalmic electromagnet, thus establishing a tradition of state-of-theart care that characterizes Sacramento ophthalmology to this day.

Sacramento ophthalmology had grown up in the often rough and tumble setting that resulted from the huge influx of fortune seekers in the Gold Rush as well as the clamor and bustle of the burgeoning railroad industry. Ocular infection and trauma were rife in the late 1800's, and when the young Dr. Briggs opened his practice in 1878, after having trained both at the prestigious Moorfields Eye Hospital in London and with the famed Ernst Fuchs in Vienna, there was much work to do here. Briggs dominated Sacramento ophthalmology for over 50 years until his death in 1931. He was the first individual on the West Coast to perform intraocular foreign body extractions with the surgical electromagnet. Briggs brought to the city an infusion of modern European ophthalmology and became a leader in organized medicine in California, a tradition that is still held by ophthalmologists around the state.

By 1900, Sacramento had grown to a population of 29,000. The County Hospital originally established in 1870 and rebuilt after a fire in 1879 was modernized as a pavilion style hospital in 1929 during which time both Sutter Memorial and Mercy

Hospitals were completed. Eye care remained in the hands of a few—mostly combined eye and ear, nose & throat

(ENT) practitioners until the 1950s, a period that witnessed the influx of a new group of full time ophthalmologists, who outside of their private practices, served the needs of the less fortunate by organizing ophthalmic services at the County Hospital. These dedicated community physicians, among whom were

Robert Alexander, William Kohl, Alfred Wagner, and Byron Demorest, became the genesis of the future Department of Ophthalmology at UC Davis.

The School of Medicine was established at UC Davis in 1966, and, in 1968, Ophthalmology became the first approved residency program at the new medical school. The addition of an active academic training program to the Sacramento ophthalmologic community provided a catalyst that transformed the profile of local ophthalmologic practice in the city. The Medical School's affiliation with the Sacramento County Hospital eventually led, in 1973, to its purchase by UC Davis and the establishment of the UC Davis Medical Center. >>



Sacramento ophthalmology had grown up in the often rough and tumble setting that grew from the huge influx of fortune seekers in the Gold Rush.



William Ellery Briggs, M.D

The ophthalmology training program, originally chaired by Dr. Byron Demorest, a Sacramento pediatric Ophthalmologist in private practice, grew directly from the community of practitioners. Dr. Demorest realized that a training program

required a full-time academic director, and in August 1971, Gerald Portney, M.D., of Stanford University was invited to assume leadership of the UC Davis Department of Ophthalmology. Under his direction, a new team of academic ophthalmologists



was attracted to Sacramento, bringing increasing national recognition to this small training program.

Following the untimely death of Dr. Portney, the Chair was assumed in 1978 by John L. Keltner, M.D., who expanded the clinical faculty and, in the early 1980s, added a research team that fostered collaborative efforts between basic scientists and ophthalmic clinicians. John Keltner remained as Chairman for 26 years building the program into a true academic department with patient care, teaching, and research components.

An academic training program in the city encouraged the establishment of ophthalmologic subspecialty practices. Prior to that time, difficult problems were commonly referred to San Francisco for treatment. This practice gradually ended as Sacramento eye care became progressively more



sophisticated and comprehensive.

Dr. Keltner was succeeded as Chair by Mark J. Mannis, MD who had come as a specialist in Cornea and External Disease to join the small faculty in 1980. Academic faculty members now

> number 17 and are drawn from many of the nation's most prestigious medical institutions, including UC Davis. Over the past five years, the faculty has grown in both breadth and depth and now includes two comprehensive

ophthalmologists, two glaucoma specialists, three vitreoretinal surgeons, three specialists in cornea and external disease, a full-time pediatric ophthalmologist, a neuro-ophthalmologist, an oculoplastic surgeon, an ocular pathologist, six optometrists, nine basic scientists working on both the Sacramento and Davis campuses and 120 staff including technical and administrative support.

Over two-thirds of the practicing ophthalmologists in the department's Northern California service area are UC Davis-trained, and the influence of the research and clinical programs is felt across the nation and around the world. The community is still very importantly involved in training the new generation, and 24 local ophthalmologists serve as volunteer clinical faculty members. Recently expanded, the residency program provides for a total of 12 residents (4 each year of a three year program) preparing for careers as ophthalmologists, 50% percent of whom go on to subspecialty training. In addition, the department trains fellows in vitreoretinal surgery, glaucoma, and cornea and external disease. Each year, the Department hosts one or more international research fellows pursuing advanced studies, and with a clinical practice that approximates 50,000 patients annually, we are one of the busiest departments in the UC Davis Health System.

(Continued on page 16)

Michael Schermer:

<image>

Doctor for All Seasons

"After graduating from UC Davis' School of Ophthalmology in the mid-1970's, Schermer joined a medical mission trip in Mexico... Schermer said the patients' big smiles and looks of joy were addicting, and he again visited Mexico, and later did the same in China, the Philippines, and Vietnam. Yet, he still felt compelled to do even more for the visually impaired." --- Derek Rudnak Arden Carmichael News, August 2003

ife is good when 66 there are no fires to put out", says Michael Schermer, one of Sacramento's busiest and most respected ophthalmologists. His quote typifies the practical and straightforward approach that he has applied to his personal and professional lives since starting his Sacramento practice in 1976. Over the 32 years that he has practiced in California's capital, Mike has dedicated himself to patient care, medical philanthropy, and a balanced and satisfying personal life.

Mike, who was raised in Detroit, was born into a family of merchants. Beginning at an early age, he learned from his family the importance of customer service He went to medical school at the University of Michigan, thinking that he would emerge as an internist or general surgeon. However, he took unsolicited advice after a chance encounter with a thoracic surgeon who suggested that he should go into ophthalmology, a decision that he has never regretted and that has brought him immeasurable personal satisfaction. After graduating from medical school. Dr. Schermer completed a medical internship and joined the Indian Health Service working as a general medical officer on the Papago Indian Reservation in southern Arizona. There, he again came into contact with an ophthalmologist who further influenced him to pursue eye

care as a medical specialty.

In 1970, Mike met Jerry Portney, the first full time academic chair of Ophthalmology at UC Davis and in March of 1973, he entered as the sixth resident of the still young ophthalmology program operating in a facility that he graciously describes as "intimate"—that is, one exam room per staff member. "It was a very exciting time," says Schermer about the program in the 70's. Teaching was done largely by the volunteer community of practitioners: Bob Alexander, Charlie Bradbrook, Bill Bryant, Ron Cole, Jack Cowley, Byron Demorest, Jack Fisher, Ralph Isola, Neil Kelly, Bill Kohl, Phil Levy, Ed Minasian, Dick Murray, Clint Pace, >>

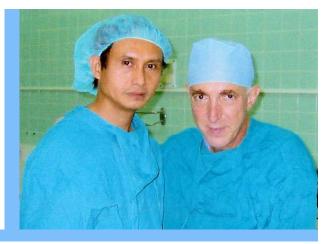
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Willis "Boots" Pickel, Rob Peabody, Norm Schwilk, and Ted Zeman among many others who brought a breadth and depth of patient care expertise to the small residency program. "It was a grand time," he points out when residents and staff made rounds on the cataract surgery patients every morning. These patients were then hospitalized for 5 days. Six months were spent at the Martinez VA Hospital, one of the most beneficial aspects of the program, where Henry Ricci mentored the residents and excellent support was provided by Mike Woolf and Bud Rainin.

After completing his

Mike with Dr. Tuyen, Dr. Quan, and Alvin in the examing room in Vietnam (left); Mike with Dr. Nam in the operating room in Vietnam (right).



training, Dr. Schermer decided to go into private practice and briefly went into partnership with Donald Depp in the St. Lukes Building. He started with two lanes in a 900 square foot office seeing patients, many of whom he still sees 32 years later. In 1979 he was among the first to implant modern posterior chamber lenses after cataract surgery, and he introduced the operating microscope to many of his colleagues in the community. In 1983, practicing at 3939 J Street. Mike and Glenn Owens formed the Sacramento Eye Surgery Medical Group, pioneering the new trend to

Mike with local children in Ben Duc, Vietnam.

outpatient surgery centers Twelve years ago Mike was also among the first practitioners in the city to start performing laser refractive surgery (PRK).

He has since moved into new space that accommodates three ophthalmologists, an optometric staff, opticians and technical and office support in a modern 4500 square-foot office (Website: www.lasereyes. com). Beryl Bechtold, OD, joined the practice in 1983 as a full time practicing optometrist with Dr. Schermer. She now has the additional responsibility of office administrator. John Rogers, O.D., joined the team in 2000. The most gratifying aspect of his practice, besides of course his happy patients, has been developing a "second family" among his staff. When asked what his hobbies are, he responds "My practice is my hobby."

Mike has been happily married to Shelly (Rochelle Sari Berg) for 42 years. Shelly graduated from Law School at Davis in 1977 and practiced law until 1991, at which time she turned to volunteer work and a new career in financial planning. Their son, David, was born in 1968 and works in the broadcasting industry in California, living in San Luis Obispo with his wife Charlotte and their two daughters. >>



heir other son Ethan, is an internet entrepreneur based in Honolulu where he lives with his wife Sabrina and their two sons. Mike of course describes his four grandchildren as lovely and exceptional!

But Mike has found other important outlets for his creativity and humanitarian concerns as an ophthalmologist. In 1983, he began traveling with the late Willis "Boots" Pickel to Mexico and the Philippines along with other community physicians. These trips infused him with a love for international ophthalmology and the lasting legacy that medical philanthropy can provide. He has since visited China (1992) and Viet Nam (2002 and 2004).

For Mike, these trips



have been invigorating and rewarding from both the standpoint of providing much needed eye care to individuals for whom this would not be readily available as well as by teaching young international ophthalmologists modern surgical techniques they can apply in their countries.

On the home front, Mike has derived immense joy from taking visually impaired patients to the California State Fair every year. "The State Fair is a party for the senses", says Schermer, and with this in mind, he has given pleasure to more than a hundred visually impaired patients by organizing a special guided tour--now in its 18th year. Accompanied by his staff and with the help of the Sacramento Society for the Blind, Mike has seen the joy

> of blind patients holding and petting the farm animals, savoring the aroma of fresh cinnamon rolls, caramel apples, and the traditional funnel cakes, and the hilarious experience of bumper cars driven by blind friends.

PARTY FOR THE SENSES AT THE CA STATE FAIR: Mike with the Party for the Senses group (left); Mike with a guest of the Party for the Senses in a bumper car (bottom); guests of the Party for the Senses (bottom left corner).



Of his experience at UC Davis, Mike points out that "UC Davis is still the mother ship and remains an important resource for the community". He and Shelly have graciously supported the department financially and see a great opportunity for the community in the UC Davis Eye Center envisioned for the future.

Mike's plan is to continue primary care eye practice until 2026, marking 50 years since completion of his residency. Currently, he has office hours three days a week and continues to fine tune the delivery of quality patient care to his patients. He still regards his chosen field as the "queen of specialties", and as he puts it, "It is hard to beat a good day in the office." We suspect that his patients would agree, and we are certainly proud to count Michael Schermer as one of our accomplished UC Davis alumni.

UC DAVIS EYE TEAM

Professor and Chair



Mark J. Mannis, M.D., F.A.C.S. Cornea, External Disease and Refractive Surgery

UC Davis Ophthalmology has a longstanding history and reputation of providing quality medical care to patients locally, as well as volunteering their time, effort, and expertise globally to developing countries with fewer resources. Each and every medical professional dedicates countless hours to ensure that each patient receives the best care: UC Davis care.



Ophthalmologists



Duva J. Appleman, M.D.



James D. Brandt, M.D. Professor, Glaucoma, Director, Glaucoma Service



Jeffrey J. Caspar, M.D. Associate Clinical Professor, Comprehensive Ophthalmology and Refractive Surgery, **Residency Program Director**



Vahid Feiz, M.D. Associate Professor, Cornea, External Disease and Refractive Surgery, Director, Refractive Surgery,



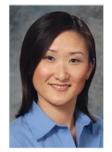
Francisco J. Garcia-Ferrer, M.D. Associate Professor, Cornea. External Disease and Refractive Surgery, Veterans Administration, Mather



John L. Keltner, M.D. Professor, Chair Emeritus Neuro-Ophthalmology, **Research Director**



Esther S. Kim. M.D. Associate Clinical Professor, Comprehensive Ophthalmology, Director, Optometric Services



Lily Koo Lin, M.D. Assistant Professor, Oculoplastic Surgery



Michele C. Lim, M.D. Associate Professor, Glaucoma, Vice-Chair, Medical Director



Linda J. Margulies, M.D. Clinical Professor, Vitreoretinal Disease. Veterans Administration. Martinez



Lawrence S. Morse, M.D., Ph.D. Professor, Vitreoretinal Surgery and Uveitis, Director, Retina Service



Mary A. O'Hara, M.D., F.A.C.S., F.C.A.P. Professor, Pediatric Ophthalmology



Susanna S. Park, M.D., Ph.D. Associate Professor, Vitreoretinal Surgery

UC DAVIS EYE TEAM



Alan M. Roth, M.D. Professor Emeritus, Ophthalmic Pathology



Ivan R. Schwab, M.D. Professor, Cornea, External Disease and Uveitis, Director, Cornea Service



David G. Telander, M.D., Ph.D. Assistant Professor, Vitreoretinal Surgery

Optometrists



Brooke S. Chang, O.D. Senior Optometrist



Thomas B. Barnes, O.D., M.S., F.A.A.O. Senior Optometrist



Crista M. Corbett, O.D., F.A.A.O. Senior Optometrist



Melissa Barnett, O.D., F.A.A.O. Senior Optometrist



Marcia Y. Nearing, O.D. Senior Optometrist



Kaaryn Pederson-Vanbuskirk, O.D., F.A.A.O. Senior Optometrist

Vision Scientists



Marie E. Burns, Ph.D. Associate Professor, Psychiatry & Behavioral Sciences



Leo M. Chalupa, Ph.D. Professor and Chair, Visual Developmental Neurobiology



Stacey S. Choi, Ph.D. Assistant Adjunct Professor, High Resolution Retinal Imaging



Every doctor begins with an inquisitive mind and an eye for exploration.



Mark S. Goldman, Ph.D. Assistant Professor, Neurobiology, Physiology & Behavior



Leonard M. Hjelmeland, Ph.D. Professor, Biochemistry



UC DAVIS EYE TEAM

Vision Scientists



Andrew T. Ishida, Ph.D. Professor, Neurobiology, Physiology & Behavior



Charles E. Thirkill, Ph.D. Assistant Adjunct Professor. Ocular Immunology



John S. Werner, Ph.D. Professor, Visual **Psychophysics**



Robert J. Zawadzki, Ph.D. Assistant Professor, High Resolution Retinal Imaging



ABOVE: Dr. James Brandt performing surgery in Vietnam with the non-profit oganization, ORBIS.

Volunteer Clinical Faculty

Duva Appleman, M.D. Barbara J. Arnold, M.D. Amin Ashrafzadeh, M.D. Kevin A. Beadles, M.D. Craig E. Berris, M.D. John Canzano, M.D. Ronald J. Cole, M.D. Francisco Garcia-Ferrer, M.D. Tyrone Glover, M.D. Daniel M. King, M.D. Daniel Lee, M.D. Philip L. Levy, M.D. Linda Margulies, M.D. Robert B. Miller, M.D. Robert E. Nasser, M.D. Jonathan P. Perlman, M.D. James B. Ruben, M.D. Denise Satterfield, M.D. Mithlesh C. Sharma, M.D. Francis J. Sousa, M.D. Ernest F. Tark, M.D.

Bruce A. Winters, M.D. Tiffany Wong, M.D. John H. Zeiter, M.D.

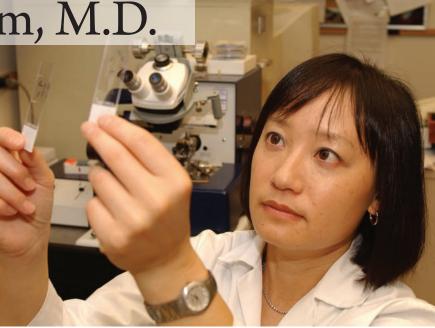


UC Davis Ophthalmology is where minds from diverse cultures around the world join to form a professional team of dedicated faculty and staff who are committed to maintaining your vision health.

Please visit us at: <u>www.ucdmc.ucdavis.edu/ophthalmology</u> to learn more about our department, faculty, and special events.

Michele C. Lim, M.D.

The New Vice-Chair and Medical Director Commits to Improving Patient Care



r. Michele Lim was going to be a veterinarian and went so far as to attend a year of veterinary school at UC Davis. But she changed her mind and is clearly very happy in her human medicine practice as the new Vice Chair of the UC Davis Department of Ophthalmology & Vision Science. She says that "On a daily basis people will say things like 'I feel so glad that you are taking care of me.' and simple words like this are so gratifying to me."

After an ophthalmology residency at the Jules Stein Institute at UCLA and a fellowship at the Bascom-Palmer Eye Institute at the University of Miami, Dr. Lim joined the glaucoma faculty at UC Davis in 2000. Her research has focused on medication adherence (whether a patient takes their medication on time) among glaucoma patients. This has become one of the "hot topics" in eye research since the successful treatment of glaucoma is a direct consequence of a patient's ability to stay on schedule with the new and very successful eye drop medications available.

As the Department's new Vice Chair, Dr. Lim has taken on the responsibility to oversee clinical operations. According to Dr. Lim, "We strive to improve the patient's experience during their visit with us while also working to fulfill our mission to train young doctors to become excellent ophthalmologists. As an academic institution with a teaching mission, a patient's visit may take a little longer than a visit to a private physician's office, but this is offset by extremely high quality care with attention to the newest treatments available."

One of the most significant recent developments in eye care for UC Davis and for the entire Health System has been the implementation of the new electronic medical record (EMR) system. Dr. Lim was responsible for implementing the EMR in the Department of Ophthalmology & Vision Science, and the system is now fully operational. This new system enables physicians and medical personnel to have immediate and around-the-clock access to a patient's medical records and it promotes the integration of a patient's health care. "We can now electronically send medication prescriptions and refills instantaneously to a patient's pharmacy. And," as Dr. Lim says, almost jokingly, "the EMR eliminates the problem of bad handwriting."

CC_{We} strive to improve the patient's experience during their visit with us while also working to fulfill our mission to train young doctors to become excellent ophthalmologists. **)**

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Robin Ferrari and Stem Cell Therapy A Patient's Story



n July 9, 2007, 125 donors, faculty members, and friends of the UC Davis Department of Ophthalmology & Vision Science gathered to hear Dr. David Telander's presentation on the future of stem cell research at UC Davis. Many people in the audience were there because of their hope that at sometime in the future, stem cell research would be able to provide cures or at least therapies to address their personal situations. Robin Ferrari and her husband Gerry were in the audience, and it was during the question and answer session following the presentation that Robin electrified the audience with her personal story of struggle, hope and experimental stem cell therapy.

Sixteen years ago, Robin had a bout with mycoplasma pneumonia, and she and Gerry count that event as the beginning of a plethora of health issues that have plagued her ever since. Joint pain and chronic fatigue followed the pneumonia. By late 2000 she was beginning to

experience serious hearing and vision loss, and in spite of seeing many doctors and taking many tests, her condition could not be diagnosed.

In early 2001, Robin was referred to Dr. William Hoyt at UCSF, the world's preeminent neuro-ophthalmologist and author of the leading neuroophthalmology textbook. Dr. Hoyt's evaluation resulted in a diagnosis of "autoimmune retinopathy in the absence of cancer." It was Dr. Hoyt that referred Robin Ferrari to UC Davis and Dr. John Keltner because of Dr. Keltner's research expertise in autoimmune retinopathy in the absence of cancer. At the time. Dr. Keltner was Chair of the Department of Ophthalmology and an eminent neuro-ophthalmologist.

By the time Robin saw Dr. Keltner, her eyesight and hearing were failing, and she was in great pain most of the time. Dr. Keltner diagnosed Mrs. Ferrari with Autoimmune Related Retinopathy and Optic Neuropathy (ARRON Syndrome) caused by an unknown autoimmune disease affecting her vision, hearing and other functions of her nervous system. Dr. Keltner sent her to the Mayo Clinic in Arizona where further tests and biopsies were done. At the Mayo Clinic, it was found that her nerves were missing their protective myelin coating. It is a condition characteristic of multiple sclerosis, but she didn't have multiple sclerosis, lupus, or cancer.

Dr. Keltner worked with her physicians in treating Mrs. Ferrari using various immunological medical approaches. Initially she responded, and her vision and hearing loss slowed. However, she eventually became resistant to these therapies, and a search was made for a new approach using stem cell therapy.

To complicate matters, there were conflicts with her insurance carrier because any stem cell therapy was considered experimental for her condition. >> ne institution consulted for a procedure declined to proceed and told her "you might not survive." Robin's response was "I won't survive anyway, so consider me a science project!"

Even with this risk-taking attitude, nothing was on the horizon until Dr. Keltner contacted Drs. Richard Burt and Yu Oyama at Northwestern University about the possibility of providing an untested stem cell therapy for Robin Ferrari. Dr. Keltner wrote a 20-page summary of the case for the Northwestern doctors requesting consideration for autologous non-myeloablative hematopoietic stem cell University, but before the procedure could be performed, a protocol would have to be devised and approved by the Federal Drug Administration.

Spring 2004 was a heady time for stem cell interest with the California Stem Cell Initiative in the works and in the news. So, Dr. Richard Burt of Northwestern took the application including the new protocol prepared by him and Dr. Keltner, to Washington, D.C., and with Gerry Ferrari's "spam campaign" blanketing the agency with "informational" emails, the application was approved in July 2004.

In spite of the fact that their insurance company disallowed

in her body. And it appears now, almost four years later, the procedure was substantially successful. The course of her disease has been stopped, and she has improvement in many areas. Her eyesight and hearing have improved, and there has been improvement in her central nervous system.

Robin and Gerry are clearly proud of their struggle to return Robin's body to health. According to Gerry, "Robin would not give up." And according to Robin, "I couldn't have gotten through it without Gerry." And they are proud of the contribution they have made to medical science. Dr. Keltner and the Northwestern

Robin and Gerry are clearly proud of their struggle to return Robin's body to health. According to Gerry, "Robin would not give up."

transplantation (HSCT). During the course of Robin's illness, Gerry Ferrari had become something of a selftaught expert in immune system diseases, so when the stem cell opportunity arose, Robin and Gerry jumped at the chance.

The procedure itself would be long and arduous. It would involve removing some 7 million of Robin's own stem cells, chemotherapeutically destroying her immune system and then reintroducing her own stem cells that hopefully would replace her malfunctioning immune response without risk of rejection. In April 2004, approval for the procedure was granted by Northwestern the procedure because of its "experimental" nature, the Ferraris elected to proceed, and they paid for this procedure on their own. So, in isolation for over two months altogether, Robin received her stem cells back on September 1, 2004.

and then they waited. And waited, and waited. Finally, after eleven days of waiting, her white blood cell count began to increase indicating the beginning of a new and functioning immune system



University faculty are working on a scientific article documenting the Ferrari case, and Dr. Keltner anticipates its publication in the next six to eight months.

(Continued on page 16)

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Tennie and Quong Doo of Turlock believe in giving to others. So when Jennie Doo was referred by her local ophthalmologist, Dr. Daniel Lee, to Dr. Michele Lim at UC Davis, Mr. and Mrs. Doo eventually found an opportunity to help others by supporting Dr. Lim's promising research.

The Doos are now retired from the grocery

business, but their three Liberty Markets in Turlock, Delhi and Livingston, California, are operated by their sons, Richard and Michael Doo. Avid travelers for many years with several trips to Southern China where Mrs. Doo still has relatives, visits to Hawaii, Lake Louise in Canada, London, and Paris, Mrs. Doo now

prefers the simplicity of gardening and taking care of her numerous and productive citrus trees (several of which she has nurtured from seed). Mr. Doo still likes to "go into work" to take care of the books and support his sons with his expertise acquired over a long career in the grocery business. The markets were founded by his father, and Mr. Doo has been active in the

Donor Profile Jennie and Quong Doo

You can buy happiness by giving to others

"Happiness is giving your time, your talent and your resources. Doctors directly help patients, and so indirectly, we can help others through them."

business since 1949.

As Mr. Doo says, "Happiness is giving your time, your talent and your resources. Doctors directly help patients, and so indirectly, we can help others through them." Informed by their Christian beliefs, they have lived by that

idea and have made gifts to UC San Francisco where



Mr. Doo had a liver transplant several years ago, to the Emanuel Hospital Cancer Center in Turlock and the We thank the Doo family for their generosity and support of our mission to find new treatments and cures for disabling eye diseases.

American Cancer Society (both Mr. and Mrs. Doo are cancer survivors) and of course, to UC Davis Department of Ophthalmology & Vision Science.

We thank the Doo family for their generosity and their support of our mission to find new treatments and cures for disabling eye diseases.

Clinical TRIALS who we are and what we do

By Barbara Holderreed

he ultimate goal of the Department of Ophthalmology & Vision Science is to find new treatments and potential cures for disabling eye diseases. To that end, clinical trials are an essential part of what we do. Conducting research with human participants gives us the opportunity to employ the latest and most promising treatments in the form of novel drugs, devices, or procedures in an effort to cure or manage ocular disease. We also conduct a multitude of studies that do not involve drugs or devices, but may collect data through questionnaires, imaging studies, analysis of blood testing, surgical specimens, and the visual outcomes of therapeutic programs like eye patching. Our clinical trials cover all subspecialties, including Glaucoma, Cornea, Vitreo-Retinal Disease, Neuroophthalmology, and Pediatric Ophthalmology. In particular, we are engaged in a number of studies that focus on age-related macular degeneration and various conditions that arise because of diabetes.

Study participants often come from outside the U.C. Davis Health System (UCDHS). Ophthalmologists and primary care doctors can refer their patients, or the patients often read or hear about the study and call to see if they are eligible to participate. Otherwise, the



doctors in the U.C. Davis Ophthalmology Clinic inform their own patients of studies they are conducting to see if they are interested in participating. Of course, not all studies benefit the participant directly. The advantage to a patient for participating in a clinical trial is that they receive comprehensive, meticulous, and personalized medical care from the specialists, and if applicable, have access to the latest advances in treatment at no cost. Furthermore, there is the knowledge and personal satisfaction that they had a part in advancing the medical community's understanding of how best to treat some of the most troubling eye diseases.

To engage in clinical research in today's world of burgeoning costs and numbers of trials, the Department must continually balance the financial impact of the clinical trial against the value of the anticipated outcome of the study. Funding for studies comes from a wide variety of sources. Private industries, such as pharmaceutical companies, develop and fund the majority of clinical trials. However, they also fund investigatorinitiated studies. Other studies are supported in whole or in part by grants from funding agencies such as the National Eye Institute (part of the National Institutes of Health), or from the private endowments from foundations such as Research to Prevent Blindness or Fight for Sight. Research gifts donated to the Principal Investigator or Department also support research projects. Currently we are conducting 68 clinical trials and research studies in the Department of Ophthalmology & Vision Science at U.C. Davis. Outside sources fund approximately 25% of these studies for a cost value of \$3.4 million.

The key to successful clinical research is teamwork and communication at every stage. The Principal Investigator conducts the studies and gathers the data, assisted by either a co-Investigator or several sub-Investigators. >> Other Department personnel necessary for most clinical trials are the study coordinators, a site manager, photographers, and a nurse/phlebotomist for studies requiring blood draws. Neither the subjects nor their insurance companies pay any of the studyrelated costs. Investigative drugs, devices and procedures are free to the participants.

The Clinical Research Coordinator (CRC) is the glue that holds the studies together. He or she works directly with the patients, physicians, numerous department and hospital personnel, and sponsors in gathering the data and administering the trial to ensure complete accuracy and validity of the data. CRCs assist the principal investigator in recruiting subjects, screening potential candidates according to the study's inclusion/

CLINICAL TRIALS UNIT CLOCKWISE FROM TOP LEFT: Helen Metzler; Barbara Holderreed; Ingrid Clark; Cindy Wallace; Allison Cassidy; Katrina Imson; Marisa Salvador; and Idalew Good.

exclusion criteria, completing subject consent documents, and orchestrating the various aspects of the study visits. Some screening visits can take several hours, and most follow-up visits take 2-3 hours, making this a significant commitment for both the coordinator and the patient!

One of the most satisfying aspects of clinical trials is that patients, study coordinators, and physicians get to know one another throughout the course of a study. Physicians and coordinators are vested in each patient, and they do all they can to ensure the comfort, safety and success for every study participant. The ultimate reward comes when it is clear that the subjects did indeed benefit from the treatment, and that a new drug or device will be safely brought to market for the betterment of all patients.

(Continued from page 4) FROM THE CHAIR'S DESK: 40 YEARS OF EXCELLENCE...

In the research sphere, now under the leadership of John Keltner, the Department now has over \$20 million in research grant support and conducts around 70 research projects and clinical trials at any given time.

And, what of the future? The meteoric growth in demand for eye care services has led to expansion of our services to Roseville, Cadillac Drive, and Paradise. Our limited space on the campus of the medical center and the need to house the most advanced facilities in the region has made a new UC Davis Eye Center facility both imminent and vitally important to the region. Support from grateful patients, alumni, industry, and philanthropic agencies will help to make this dream a reality. The future is both bright and challenging, and the potential for growth in service to our region and the nation are unlimited. In collaboration with the U C Davis Health System, the eye care community of the region, and the dynamic leadership of our supportive patients, we look to a promising future.

(Continued from page 13) ROBIN FERRARI AND STEM CELL THERAPY...

Stem cell research remains vitally important to the overall research program at UC Davis' Department of Ophthalmology & Vision Science. Besides Dr. Keltner and Dr. Telander, Dr. Ivan Schwab, Dr. Susanna Park and Dr. Larry Morse are all working on aspects of stem cell technology. According to Dr Keltner, "the Ferraris are remarkable individuals. Mrs. Ferrari, with the support of her husband Gerry, would not give up on her illness and with their tremendous courage and fortitude she underwent an experimental stem cell treatment which resulted in a miraculous stabilization and improvement in her disease. Her experience gives all of us hope and encouragement."

Sacramento ophthalmologists are proud to have called Dr. Pickel one of our own.



MARCH 16, 1925 -FEBRUARY 29, 2008

IN • MEMORIAM

A Tribute to Willis W. Pickel, M.D.

By Byron Demorest, M.D.

In February 2008, the UC Davis Department of Ophthalmology & Vision Science lost one of its founding physicians: Willis W. "Boots" Pickel. An excellent surgeon who freely shared his ability teaching residents and others, Dr. Pickel played a critical role in developing eye care at UC Davis for over 25 years.

Dr. Pickel led an eclectic life. Raised on a ranch in New Mexico, he was called "Boots" by his family and friends. As a child he had played with the ranchers' boots so much that the family started calling him "Boots," and the nickname stuck. After graduating from High School as class valedictorian, he joined the Army Air Corps and rose to the rank of Captain serving during World War II with distinction as a C-47 pilot in the Philippines and Japan.

At the end of the war, he entered the University of New Mexico as a pre-med major. He was a talented athlete and played as a halfback on the UNM Lobos football team. It was there that he met and married Allene Bigbee, his partner for life. They had four children.

He earned his M.D. degree at the Baylor College of Medicine. Upon graduation in 1955, he and Allene established a family practice in Santa Fe, NM. After five years, he left New Mexico and completed his residency in ophthalmology at Hollywood Presbyterian and Orange County Hospitals (now UC Irvine).

We celebrate his contributions to ophthalmology at UC Davis and his many years of service that helped to make the Department of Ophthalmology & Vision Science the outstanding institution that it is today.

The family then moved to Sacramento where he and Allene managed a thriving ophthalmology practice until his retirement in 2001. His finest attributes were his patience and his willingness to share his time and talents. For years he was the only Sacramento area doctor practicing as an oculoplastic surgeon, and in the early UC Davis ophthalmology residency program, residents often called upon him, day and night, to help care for patients with particularly challenging problems including severe facial or eye injuries

following automobile accidents.

He became aware of a need for up-to-date eye care for the indigent people in Mexico and the Philippines. So, in 1978, he became a founder of Sight Savers International for which he led surgical expeditions to these two countries. Numerous trips were made under his guidance. They were well staffed with doctors and nurses recruited from the Sacramento area who donated their time. Several physicians from the UC Davis Ophthalmology Department were also involved in this burgeoning

international program.

When he noted the need for modern surgical instruments and other supplies, he arranged to have them donated to the Mexican hospitals. Through these efforts, thousands of patients have had their sight restored. and just as important, foreign eye surgeons have been taught new techniques through lectures and with hands-on experience in eve clinics or surgical suites. Because of his unselfish efforts in the prevention of blindness, he received numerous recognitions. (Continued on next page.)

31stAnnua almolo sium

May 16-18, 2008

2008 Award for Best Presentation by a Resident >> FROM LEFT TO **RIGHT**: Pauline Lim, M.D., Resident: John Keltner, M.D.; and Robert Miller. M.D., former UCD Ophthalmology Resident and current Volunteer Faculty.



Thanking 2008 symposium guest speakers >> FROM LEFT TO RIGHT: Claude Burgoyne, M.D.; James Handa, M.D., Ph.D.; Terry Kim, M.D.; and Mark Mannis, M.D., F.A.C.S.





Enjoying their company - FROM LEFT TO RIGHT: Kumba Long, M.D., Resident; James Weisel, M.D., Resident; Ivan Schwab, M.D.; Josh Zastrocky, M.D., Glaucoma Fellow; James Brandt, M.D., and Sara Moditahedi, M.D., Resident

(Continued from previous page...) A TRIBUTE TO WILLIS PICKEL, M.D. These included awards from Lions Clubs across the United States and Mexico, and in 1992,

he received the first Rodney E. Abernathy Humanitarian Award from the California Academy of Ophthalmology.

In 1993, the Sacramento El Dorado Medical Society presented him with the Golden Stethoscope Award, the highest recognition the Medical Society gives. That same year, the largest eye society in the world, The American Academy of Ophthalmology, gave him their **Outstanding Humanitarian Service** Award. At the presentation, it was noted that Dr. Pickel was leading the kind of exemplary life so many ophthalmologists only aspire to have. He made a career out of giving unselfishly and humbly his considerable organizational and medical skills to aid less fortunate individuals around the world as well as in his own community.

For 26 years, Boots Pickel was a volunteer Clinical Professor of Ophthalmology on the UC Davis faculty. Sacramento ophthalmologists are proud to have called Dr. Pickel one of our own. We celebrate his contributions to ophthalmology at UC Davis and his many years of service that helped to make the Department of Ophthalmology & Vision Science the outstanding institution that it is today.

Residents' Farewell Dinner June 26, 2008



<< 2008's graduating Residents FROM LEFT TO RIGHT: Mark Mannis, M.D., Chair; Kevin Merrill, M.D., Resident; Cheri Leng, M.D., Resident; Pauline Lim, M.D., Resident; Jeffrey Caspar, M.D., Residency Program Director.

Former UCD Ophthalmology Resident and current Volunteer Faculty >> Robert Miller, M.D.



2008's graduating Fellows >> FROM LEFT TO RIGHT: Josh Zastrocky, M.D., Glaucoma Fellow; Jay Bradley, M.D., Cornea Fellow; Christopher Cessna, M.D., Retina Fellow



<* *Executive Associate Dean for Clinical and Administrative Affairs* Thomas Nesbitt, M.D., M.P.H.



Residents' Farewell Dinner Cont. June 26, 2008





Current Residents >> FROM LEFT TO RIGHT: Kumba Long, M.D.; Sara Modjtahedi, M.D.; George Watson, M.D.; Christine Chiou, M.D.; Ashley Lesley, M.D.

Clinical Research Coordinators (CRC) >> FROM LEFT TO RIGHT: Allison Cassidy; Katrina Imson

<< "Pillars of Ophthalmology" Gift from the Fellows and Residents FROM LEFT TO RIGHT: James Brandt, M.D.; Mark Mannis, M.D.; John Keltner, M.D.



<< *Residents' Farewell Dinner Ceremony* FROM LEFT TO RIGHT: Ivan Schwab, M.D.; Jay Bradley, M.D., Cornea Fellow; Vahid Feiz, M.D.; Mark Mannis, M.D.



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