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## *Eye Institute Site Gift from Baptist Memorial Health Care Corporation*



**Future Site of the UT Eye Institute**

research, or administrative functions. Dr. Barrett Haik, Hamilton Professor and Chair of the UT Department of Ophthalmology, stated that the quality construction and size—225,000 square feet—of the building offers a tremendous advantage: "This building is an extraordinary gift from the Baptist Hospital Board and administrative leaders. It will move our timetable forward by two years and allow us to create a comprehensive clinical, research, and academic eye center that will serve as a major resource for Memphis, the State of Tennessee, and the entire Mid-South region."

Under Dr. Haik's leadership, the Department of Ophthalmology is well on its way to securing private funds for renovation and refurbishing of the building. The UT Vision Science Program recently received a unique laboratory construction grant from the National Institutes of Health. The \$1.9 million awarded to Principal Investigator and Assistant UT Vice President for Research Michael Dockter, Ph.D., required local matching funds. The matching funds were generously donated by Dr. and Mrs. Ralph S. Hamilton, major benefactors of all Departmental activities, and by the Knapp Foundation of Memphis, which has been a leading supporter of the Eye Institute campaign. Phase I of construction includes the development of 24,000 square feet of state-of-the-art research facilities. Philanthropic support to create and sustain this center of ophthalmic excellence has also been received from regional and national foundations, and individuals committed to the preservation of vision.

Stephen C. Reynolds, President and CEO of the Baptist Memorial Health Care Corporation, expressed the approval of their board and senior leadership: "We are blessed to have Dr. Haik and his colleagues in our community as we seek innovative approaches to advance ophthalmic care."

In addition, Baptist MHCC is donating its former campus of the Baptist Memorial Hospital Medical Center to the Memphis Biotech Foundation as the construction site of the new UT-Baptist Research Park. The plans call for a new campus integrating research, teaching, and biomedical development. The proximity of the Research Park to the UT Health Science Center will create unique collaborative opportunities for UTHSC and its academic and research activities, a major focus of the new Eye Institute.

**T**he new University of Tennessee Eye Institute will be located within 930 Madison Avenue building. This state-of-the-art facility is a major portion of a \$40 million gift of buildings, land, and equipment from the Baptist Memorial Health Care Corporation to the University of Tennessee.

The 930 Madison building is an ideal location for the Eye Institute. Strategically located adjacent to existing major research and academic facilities, it was built to hospital standards as a clinical medical center; thus, it can be easily renovated to serve clinical,

Distinguished  
Visiting  
Professor

## *Dr. Spencer Thornton is First Ridley Distinguished Professor*

**S**pencer P. Thornton, M.D., F.A.C.S. presented the inaugural Sir Harold Ridley Distinguished Visiting Professor lecture on September 28, 2001. Dr. Thornton earned his M.D. from the Bowman Gray School of Medicine of Wake Forest University and completed his residency in ophthalmology at Vanderbilt University School of Medicine. He is a fellow of the American Academy of Ophthalmology, the American College of Surgeons, and the American College of Nutritional Medicine. He has served as a member of the Board of Directors of the American College of Eye Surgeons and vice president of the International Refractive Surgery Club.

He was chairman of the Internal Committee of Standards and Quality Control for Ophthalmic Instruments and Devices and served as president of the American Society of Cataract and Refractive Surgery. He is the current president of the American College of Nutritional Medicine and retired director of the



**Drs. Spencer Thornton and Jerre Freeman**



**Dr. Kimberly Freeman, Dr. John Freeman, Mrs. Ann Freeman, Reverend Gerald and Mrs. Janice Vanderhaar.**

Thornton Eye Center in Nashville, Tennessee.

**Jerre Minor Freeman, M.D.** established the Distinguished Visiting Professorship in honor of Sir Harold Ridley, inventor of the intraocular lens, to recognize, commemorate, and encourage innovative analysis and solutions to ophthalmic dilemmas. Dr. Thornton's lecture, entitled "Accepting the Challenge of Innovation in Medicine," addressed the strength of conviction needed by those who seek to introduce new ideas, technology, and techniques to ophthalmic treatment, citing examples of ophthalmic discoveries that achieved acceptance through the resolute efforts of their advocates.

Dr. Freeman, an eminent local ophthalmologist and graduate of the University of Tennessee Ophthalmology Residency Program, endowed the Professorship. Dr. Freeman is currently a Clinical Professor of Ophthalmology at the University of Tennessee Health Science Center, and has been in private practice in Memphis for over 30 years, specializing in cataract surgery, microsurgery of the anterior segment of the eye, intraocular lens implants, and laser refractive surgery. He is founder and chairman of the Memphis Eye and Cataract Associates' Outpatient Surgical Center, the first center of its kind in Tennessee. He is also one of the founders of the World Cataract Foundation—an international, charitable nonprofit organization founded in 1978 in response to the vast problems of cataract blindness in the developing countries of the world.

Dr. Freeman's humanitarian activities are outstanding and have garnered the respect and admiration of his many professional colleagues. He has been a volunteer ophthalmologist at the Hospital de la

*continued on next page*

## *Rajesh K. Sharma, MD, PhD*

**D**r. **Rajesh Kumar Sharma** is the Gerwin Research Scholar in Ophthalmology. Dr. Sharma received his medical degree from the Armed Forces Medical College of the University of Poona in India. His residency in ophthalmology at the Medical College of the University of Gorakhpur and the Medical College of Meerut University led to a diploma in ophthalmology and a Master of Surgery respectively. At the University of Lund, Sweden, he was awarded his Licentiate of Medical Science and Ph.D. He began post-doctoral studies at the University Hospital of Lund, researching neurobiology of the retina and retinal transplants, and he continued his research at the Institute of Eye Pathology at the University of Copenhagen, concentrating on the culture and transplantation of the retinal pigment epithelium.



Mrs. Dorothy Gerwin and Dr. Rajesh Sharma

Dr. Sharma completed his postdoctoral studies at the University of Tennessee Health Science Center in 1999 and was appointed an Instructor in Ophthalmology. At that time, he was also selected as the Gerwin Scholar in recognition of his past achievements and his promising potential as an innovative researcher. Dr. Sharma's research centers on cultivating retinal cells for transplantation. This technique holds great application for the alleviation of retinal degenerative diseases, most particularly macular degeneration. He has lectured extensively on both clinical and research topics in ophthalmology at universities in India and Sweden, and has spoken at many international symposia and conferences. He has authored over twenty-five original papers, reviews, and book chapters on retinal degenerations and retinal transplantation.

The Daniel and Dorothy Gerwin Research Endowment was established by Mrs. Dorothy Gerwin in honor of her late husband. The Gerwins have made a significant impact on the research programs at UT and in the Department of Ophthalmology specifically. Dr. Haik praised this gift: "Mrs. Gerwin's support and ongoing encouragement of biomedical research has been critical to our efforts to prevent blindness."

*"...Ridley Distinguished Professor," continued from previous page*

Amistad in Ometepe, Mexico for over three decades, and a consultant professor in China at both the Shanghai Medical College and the Tong Ren Hospital in Beijing. In recognition of his volunteerism, he has been awarded the National Medal of Honor for Humanitarian Services presented by the Daughters of the American Revolution, the inaugural Person of Vision Award by the Alliance for the Blind and Visually Impaired, the Global Citizens Award presented by the World Affairs Council of Memphis, the Melvin Jones Fellowship Award for Community Service presented by the Lions Club International Foundation, the Good Samaritan Award presented by the *Memphis Health Care News* and the Church Health Center, the Community Service Award presented by Tennessee Medical Association, Outstanding Alumnus presented by the University of Memphis, and the Distinguished Alumnus presented by the UT College of Medicine, Department of Ophthalmology, among many others.

# Ophthalmology

## Department

### Activities

**Dr. Edward Chaum** published "Comparative Analysis of the Uptake and Expression of Plasmid Vectors in Human Ciliary and Retinal Pigment Epithelial Cells In Vitro" in the *Journal of Cellular Biochemistry*.



Dorothy Conner, UT Administrative Secretary, presents AIAP award to Dr. Haik

**Dr. Barrett Haik** was named a "Health Care Hero" by the *Memphis Business Journal*. Dr. Haik was recognized for his outstanding efforts in innovative patient care. Dr. Haik was also named "2001 Executive of the Year" by the Memphis Chapter of the International Association of Administrative Professionals.

**Drs. Monica Jablonski and Alessandro Iannaccone** were co-authors of "Targeted disruption of Müller cell metabolism induces photo-receptor dysmorphogenesis" in the journal *Glia* and "Pigment epithelium-derived factor supports normal development of photoreceptor neurons and opsin expression after RPE removal" in the *Journal of Neuroscience*, with co-authors Drs. Tombran-Tink and Mrazek and "Downregulation of a Unique Photoreceptor Protein Correlates with Improper Outer Segment Assembly" with Drs. Wohabrebbi, Umotot, and Desiderio in the *Journal of Neuroscience Research*.

**Dr. Dianna Johnson** authored "GABA in the Retina" in the textbook *GABA at Fifty*, edited by Drs. Martin and Olsen, and "Dye Coupling in Horizontal Cells of Developing Rabbit Retina" in *Visual Neuroscience*.

She also co-authored "Photoreceptor-Horizontal Cell Reaggregation in Monolayer Cultures of Neonatal Rabbit Retina" in the *Journal of Comparative Neurology*, with Kate Withrow.

**Dr. Natalie Kerr** co-authored a chapter entitled: "Selected Genetic Syndromes with Ophthalmic Manifestations" in *Pediatric Ophthalmology*, co-edited by Drs. Kenneth Wright and Peter Spiegel.

**Dr. James Linder** presented "Eyelid Tumors and Eyelid Reconstruction" at the UT Department of Dermatology Grand Rounds.

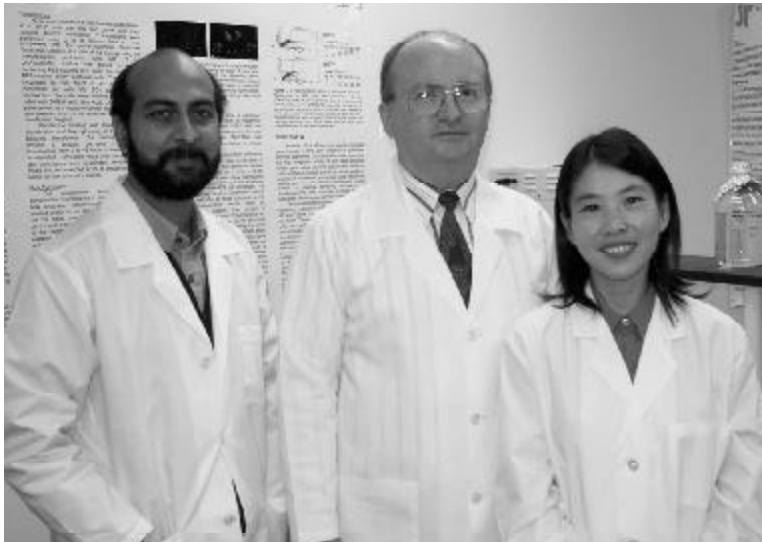
**Dr. Monika Malecha** presented "Herpes Simplex Oculocutaneous Disease" at UT Dermatology Grand Rounds in September.

**Drs. William Morris and James C. Fleming** shared authorship of "Respiratory Choristomatous Cysts in the Temporal Orbit," published in the *Journal of Ophthalmic Plastic and Reconstructive Surgery*.

**Dr. Peter Netland** was senior author of a study comparing the efficacy of glaucoma medications, "Travoprost compared with latanoprost and timolol in patient with open-angle glaucoma or ocular hypertension," published in the October issue of the *American Journal of Ophthalmology*. Dr. Netland was an invited speaker at the Four State Ophthalmological Society Meeting on September 15, 2001, in Missouri, and presented a "Glaucoma Update" to the Tennessee Ophthalmological Society in Chattanooga on September 21, 2001. Dr. Netland was also the invited speaker at the Vermont Ophthalmological Society Meeting in Rutland, presenting "Management of Difficult Glaucomas," "Treatment of Problem Blebs," and "Non-IOP Lowering Strategies in the Medical Management of Glaucoma."

**Drs. R. Christopher Walton and Natalie Kerr** were co-authors of "Juvenile Arthritis and Autoimmunity to Type II Collagen" in *Arthritis and Rheumatism*, along with Drs. Myers, Higgins, Finkel, Reed, Thompson, Hendrickson, Pandya-Lipman, Shlopov, Stastny, Postlewaite, and Kang.

## *Cataract Prevention Focus of Jernigan Laboratory*



Drs. Chakrabarti, Jernigan, and Hu

**D**r. Howard Jernigan's research over the past 23 years has been directed at finding methods to prevent cataracts by understanding and reinforcing natural tissue repair processes.

In the U.S. alone, there are more than 1 million cataract surgeries that cost billions of dollars per year. Worldwide, cataracts are the leading cause of blindness. Cataracts affect people of all ages, but most kinds are more common in older people, so the problems associated with cataracts are intensifying as people live longer.

In general, aging of any tissues, including the lens, is a struggle between damage and repair. Sources of lens damage have been identified—such as ultraviolet light, x-rays, and certain drugs—but many sources of damage cannot be completely avoided. We are constantly exposed to visible light and oxygen or certain pharmaceuticals that may be required to treat medical conditions, even though they may contribute to cataracts. Since we cannot completely avoid constant low-level damage to our lenses, it is necessary to depend upon our natural repair mechanisms to prevent damage from accumulating.

Very early in the development of cataracts, the membranes that surround lens cells become leaky and lose function. Dr. Jernigan's laboratory is study-

ing the processes that repair these cell membranes, made up primarily of phospholipids and proteins. After cell membrane damage begins to occur, the lens cells start to make more of the phospholipid compounds needed for membrane repair, and Dr. Jernigan's research seeks to identify the control factors for this repair, to hasten the process with drugs or diet.

Aiding him in his investigations are two new research assistants, Dr. Wenrong Hu and Dr. Ipsit Chakrabarti. Dr. Hu received her medical degree from Hering Medical University in Hangzhou, China, and also completed a residency in otolaryngology at the Second Municipal Hospital of Hangzhou. She was a research assistant in the laboratory of Professor Renrui Ding at Hangzhou University and a research associate at the Institute of Viral Diseases at the Zhejiang Academy of Medical Sciences. Dr. Chakrabarti received a Master of Science in Zoology, a Master of Philosophy in Environmental Science, and a Ph.D. from Calcutta University. His major research interest has been biochemistry and enzymology. Enzymology is a fascinating field that includes the assay and characterization of different metabolic enzymes, an important aspect of cataract analysis. Both these researchers bring unique skills and experience to addressing the problem of inhibiting cataractous lens changes.

Dr. Jernigan and his team will undoubtedly contribute to the knowledge that will one day delay or prevent the cataracts that cause so much expense, suffering, and blindness throughout the world—and in the Department of Ophthalmology specifically—by direct financial support and ongoing encouragement of biomedical research.

## Department

## Faculty

## & Offices

**UT Ophthalmology Web Site:**  
<http://www.eye.utmem.edu>

**Barrett G. Haik, M.D., F.A.C.S.**  
Ophthalmic oncology, orbital disease, and oculoplastic surgery  
Chair and Hamilton Professor

**Richard D. Drewry, Jr., M.D., F.A.C.S.**  
Neuro-ophthalmology  
Professor and Vice-Chair

**Edward Chaum, M.D., Ph.D.**  
Medical and surgical retina  
Associate Professor and  
Plough Foundation Professor of  
Retinal Diseases

**James C. Fleming, M.D., F.A.C.S.**  
Orbital disease and  
oculoplastic surgery  
Associate Professor

**Ralph S. Hamilton, M.D.**  
Anterior segment surgery  
Professor

**Roger L. Hiatt, M.D.**  
Pediatric ophthalmology  
and strabismus  
Professor Emeritus

**Alessandro Iannaccone, M.D.**  
Hereditary retinal disease  
and visual electrophysiology  
Assistant Professor

**Natalie C. Kerr, M.D., F.A.C.S.**  
Pediatric ophthalmology  
and strabismus  
Associate Professor  
**James S. Linder, M.D.**

Orbital disease and  
oculoplastic surgery  
Assistant Professor

**Monika A. Malecha, M.D.**  
Corneal and anterior segment  
disease; refractive surgery  
Assistant Professor

**William R. Morris, M.D.**  
Comprehensive ophthalmology  
and ophthalmic pathology  
Associate Professor

**Peter A. Netland, M.D., Ph.D.**  
Glaucoma  
Associate Professor

**Mary E. Smith, M.P.H., R.D.M.S.**  
Diagnostic ultrasonography  
Instructor

**R. Christopher Walton, M.D.**  
Uveitis and ocular  
inflammatory disease  
Associate Professor

**Matthew W. Wilson, M.D.**  
Ophthalmic oncology, orbital  
disease, and oculoplastic surgery  
Assistant Professor

## Research

**Dianna A. Johnson, Ph.D.**  
Hiatt Professor of Ophthalmology  
and Professor of Neuroanatomy

**Howard M. Jernigan, Ph.D.**  
Professor of Ophthalmology and  
Biochemistry

**Monica A. Jablonski, Ph.D.**  
Associate Professor of  
Ophthalmology and Neuroanatomy

**Rajesh Sharma, M.D., Ph.D.**  
Instructor in Ophthalmology and  
Gerwin Research Scholar

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## *Dr. Iannaccone receives NEI Grant for Study of Retinal Degeneration*



**Drs. Iannaccone meets with Dr. Kritchevsky**

**D**r. **Alessandro Iannaccone** has received a grant from the National Eye Institute to investigate the role of a dietary supplement, lutein, in preventing age-related macular degeneration. The grant, a K23 Award, is for \$711,006 over a five-year period.

"Clinical Epidemiology of Retinal Degenerations" will focus on examining patients 70 years old or older to understand the relationship between lutein and the risk of age-related macular degeneration. The study hopes to clarify whether lutein has a protective effect and to determine the levels of lutein necessary to achieve this protection. The participants will be selected from the Health ABC Study, a large

prospective study of aging in Memphis and Pittsburgh, funded by the National Institute on Aging. The principal investigator of Health ABC is Stephen B. Kritchevsky, Ph.D., epidemiologist with the UTHSC Department of Preventive Medicine, who is also co-investigator on the NEI funded ancillary study. Of 1,300 patients in the ABC Study, approximately 350 will participate in the eye program.

The study will utilize a unique technique called "macular pigment optical densitometry" (MPOD). This technique estimates the content of lutein in the macula of patients in a non-invasive, simple, reliable way. Bausch &

Lomb and Kemin Foods have contributed funds to support a custom-made unit to estimate the intraretinal content in lutein.

This NEI grant is one of several recently awarded to Dr. Iannaccone. He has also received a grant from the UTHSC Vascular Biology Program to study vascular aspects of age-related macular degeneration; three grants (one from UTMG, one from Fight for Sight, and another multi-year grant as a subcontract to a multi-center study funded by NIH) to study Usher syndrome, the most common deaf-blinding disorder in the population; and finally, a grant from LeBonheur Children's Medical Center to study X-linked retinal diseases.

*continued on next page*

### How to Help UT Ophthalmology Achieve Its Goals

Without the continuing generosity of the alumni and friends of the Department, it would be impossible for us to complete our current educational and research objectives or undertake additional projects. You can help by contributing to existing funding initiatives, by underwriting a project of particular interest to you or your family, or by lending unrestricted support with a gift to the Ophthalmology Support Fund.

For additional information on charitable donations to the Department of Ophthalmology at UT Health Science Center in Memphis, please contact Bettye Speake CFRE, Director of Development for the College of Medicine, 62 South Dunlap, Suite 500, Memphis, TN, 38163, telephone 901-448-6532 or 1-800-733-0482, or you may call our Department offices at 901-448-5883.

Department

Faculty

News

## *Dr. Natalie Kerr Named New Director of Residency Program*



Dr. Kerr and Dr. Walton with Ophthalmology Residents

**N**atalie C. Kerr, M.D., F.A.C.S. recently became the new director of the Ophthalmology Residency Program. Dr. Kerr succeeds Dr. R. Christopher Walton, who was residency director for five years.

The residency director supervises all aspects of resident training, including interview and selection of candidates, clinical and surgical rotations, and teaching activities such as lectures and conferences. The director is responsible for fulfilling the requirements of the Residency Review Committee (RRC), which oversees and assures training in medical specialties.

Dr. Walton was appointed director in 1996, and met a major challenge in reorganizing the program so residents rotated with the faculty recruited by Dr. Barrett Haik. He also reorganized and re-equipped the clinic at the Veterans' Affairs Medical Center, the largest of the resident clinics. The VA eye clinic is now a premier training center, offering the most recent advances in diagnostic and surgical equipment. It is hosting a pilot program in electronic medical record-keeping and introducing residents to state-of-the-art information retrieval.

Dr. Kerr's greatest task in assuming the position of residency director is insuring educational quality during an environmental change. "The Eye Institute will offer incredible potential for increased interaction between the residents and the faculty. My goal is to optimize exposure of the residents to the faculty in all facets of ophthalmic activity: clinical diagnosis and management, surgery, and research."

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*"...Study of Retinal Degeneration," continued from previous page*

Additionally, Dr. Iannacone co-authored two important papers on genetics: "Positional cloning of a novel gene on chromosome 16q causing Bardet-Biedl syndrome (BBS2)" in *Human Molecular Genetics* with Drs. Nishimura, Searby, Carmi, Elbedour, Van Maldergem, Fulton, Lam, Powell, Swiderski, Bugge, Haider, Kwitek-Black, Ying, Duhl, Gorman, Heon, Jacobson, Stone, and Sheffield and "Identification of the gene that, when mutated, causes the human obesity syndrome BBS4" in *Nature Genetics* with Drs. Mykytyn, Braun, Carmi, Haider, Searby, Shastri, Beck, Wright, Elbedour, Riise, Baldi, Raas-Rothschild, Gorman, Duhl, Jacobson, Casavant, Stone, and Sheffield.

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