

# ARIA

ALCON RESEARCH INSTITUTE ALUMNI



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## 1994 ARI Symposium Has Something For Everyone



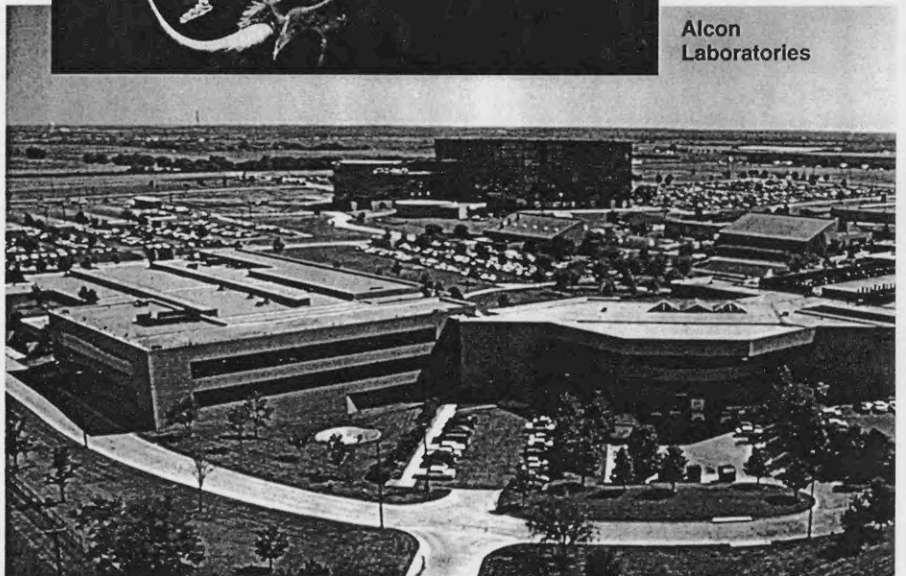
Fort Worth's uptown sophistication coupled with its down-home western heritage attracts tourists from the world over.

It's time to make your reservations for the 1994 Alcon Research Institute Symposium, set for March 3 and 4 in Fort Worth, Texas. Attendees will hear presentations from 1993 ARI award winners, whose topics range from the circadian clock in photoreceptors to the molecular genetics of hereditary retinopathies.

Friday evening will be spent at the Circle R Ranch, just north of town. Guests can stomp their feet to the beat of a live western band, try their hand at mechanical calf roping or see who's the fastest gun in a quick draw competition.

An annual trail ride through city streets commemorates Fort Worth's colorful history.

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**Gerald Chader, Ph.D.**

***"PEDF: A New Neurotrophic Protein in the Eye and Other Organs"***

Seeking a better understanding of both normal retinal functioning and retinal diseases, Dr. Chader is researching new molecular biological techniques to pinpoint unique retinal genes as "candidates" in retinal diseases. His research interests are multiple: the role of interphotoreceptor retinoid-binding protein in transport processes in the visual cycle, and retinal and retinoblastoma cell differentiation and growth control. Also central to his work, and the topic of his presentation, is the characterization and gene analysis of pigment epithelium derived factor as a new neurotrophic protein in the eye.

Since 1985 he has been chief of the Laboratory of Retinal Cell and Molecular Biology at the National Eye Institute, National Institutes of Health in Bethesda, Maryland. He received his doctorate from the University of Louisville Medical School in 1966 and was an Alcon Research Institute awardee in 1986.



**Peter Humphries, Ph.D.**

***"On the Molecular Genetics of Hereditary Retinopathies"***

Dr. Humphries, professor of Medical Molecular Genetics at

Trinity College in Dublin, Ireland, hopes his research will contribute to knowledge of the cause and treatment of human genetic disease. Through his work in molecular genetics of retinal disease and human molecular genetics, he has characterized several retinitis pigmentosa-causing genes.

Dr. Humphries earned his doctoral degree in Molecular Genetics from Trinity College in 1974 and was named a fellow of the college in 1988. He has received a number of grants, including one funding a five-year program from the Wellcome Trust, and support from the National RP Foundation since 1985.



**Tung-Tien Sun, Ph.D.**

***"Keratinocyte Stem Cells and Differentiation"***

Searching to better understand the regulation of the growth and differentiation of keratinocytes, Dr. Sun pursues research in the growth properties of corneal epithelial stem cells and the molecular regulation of the K3 gene, which encodes a major corneal epithelial keratin. An important outcome of this work was the realization that corneal epithelial stem cells are not uniformly distributed on the corneal surface but are, rather, concentrated in peripheral cornea in the limbal zone. He is currently completing work on a three-year grant from the National Institutes of Health to study corneal epithelial differentiation. Under a four-year grant from NIH, he is researching biochemistry of urothelial differentiation.

Since 1988, Dr. Sun has been associate director of the NIH Skin Disease Research Center at New York University Medical School and in 1990 was appointed Rudolf L. Baer Professor and Director of Epithelial Biology. He earned his

doctoral degree in Biochemistry from the University of California at Davis and completed post-doctoral work in Cell Biology at Massachusetts Institute of Technology in 1978.



**Hugh R. Taylor, M.D.**

***"Effect of UV-B Exposure on the Eye"***

A year of graduate work in an immunology clinic kindled Dr. Taylor's interest in research soon after his graduation from Australia's University of Melbourne in 1969. After completing his diploma of Ophthalmology at the same university in 1975, he was named a fellow in both the Royal Australian College of Surgeons and the Royal Australian College of Ophthalmologists. He undertook a corneal fellowship at the Wilmer Institute in 1977, then joined the faculty and helped establish the Dana Center for Preventive Ophthalmology.

His research focuses on the epidemiology of eye diseases, and he hopes to make significant contributions to their prevention and treatment, especially in underprivileged communities. He has participated in the Chesapeake Bay Waterman Study of the ocular effects of UV-B exposure. His research also includes a combination of laboratory and field studies to explain the pathogenesis of trachoma, and he has taken ivermectin treatment of onchocerciasis from clinical trial to community-wide distribution. Presently he serves as Ringland Anderson Professor and Chairman of the University of Melbourne's Ophthalmology Department and as director of eye services at the Royal Victorian Eye & Ear Hospital.