

Invited Speaker



Prof. Jia Qu
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Biography

Jia Qu graduated from Wenzhou Medical College in 1983. After residency and fellow-doctor programs in the ophthalmology department of the Second Affiliated Hospital, he became one of the leading eye doctors and researchers at college. Since 1995, he has been Professor and Director of Eye Science and of the clinic at the hospital and college. Prof. Qu is one of the pioneers who set up ophthalmology and optometry higher education in mainland China in 1988. Under his leadership, a complete higher education system for ophthalmology and optometry was formed and developed, including Wenzhou's PhD/MS/bachelor's degrees and teaching resources.

In 1998, an eye hospital that integrates ophthalmology and optometry was designed and started by him and his group. It quickly became a model of eye care practice excellence in China. Prof. Qu's great contribution to ophthalmology and optometry education and practice was recognised by the New England College of Optometry's conferment of an honorary degree of Doctor of Humane Letters to him in 2002.

Prof. Qu's research and practice concentrate on basic vision science and pediatric ophthalmology. He has successfully set up laboratories for animal models of myopia, basic research laboratories for genetic ocular diseases, and laboratories for visual function research. He has won about a dozen grants from national foundations in past years. He currently has two grants from the National Natural Science Foundation of China and one grant from China's Ministry of Science and Technology. In 2005, Prof. Qu won the honour of "most outstanding scientist" from the Zhejiang provincial government in recognition of his life's work.

The mechanism of myopia research and recent findings

Abstract

Myopia, the most common refractive defect in humans, is increasing significantly in prevalence and severity in many parts of the world. While low degrees of myopia cause impaired visual acuity that can be addressed with corrective lenses, higher degrees of myopia can lead to permanent visual impairment or blindness and can increase susceptibility to a range of ocular complications, such as glaucoma, retinal degeneration, and choroidal neovascularization.

Our institution has studied in vivo and in vitro mechanisms of myopia. Models of myopia using guinea pigs and mice have been established, and some critical mechanisms have been investigated, including the role of the ocular neurotransmitter system in myopic development and the role of scleral extracellular matrix (ECM) remodeling as a functional effector during myopic development. Cultured human scleral fibroblasts are currently being studied for the mechanism of scleral ECM remodeling.