

## DOCTOR HONORIS CAUSA Professor Traian V. CHIRILĂ – Queensland Eye Institute

Professor TRAIAN V. CHIRILA was born on 14th of February in Arad, Romania. He spent his childhood in Chisineu Cris, Arad County, where he also graduated from high school in 1966. In 1972 he graduates as Bachelor of Chemical Engineering from the Faculty of Industrial Chemistry in Timisoara, in the specialty Technology of Macromolecular Compounds, and in 1981 he is awarded a PhD in chemical sciences by the same faculty. After obtaining his PhD degree, he accepted to go as a specialist in polymers processing to a country in North Africa, Libya. In December 1982 he reaches Austria where he asks for political asylum, and then he waited for seven months until Australia accepted him as a political refugee and relocated him to Perth, Western Australia, where he spend the next 22 years.

Professor TRAIAN V. CHIRILA, BEng, PhD, is the Chief Scientist of the Queensland Eye Institute in Brisbane, Australia, and Honorary Professor at Queensland University of Technology, the University of Queensland (at the Australian Institute for Bioengineering and Nanotechnology), and the University of Queensland (at the Faculty of Medicine and Biomedical Sciences).

Professor Traian V. Chirila is the inventor of the AlphaCor™ artificial cornea (initially known as the “Chirila keratoprosthesis”) and of the AlphaSphere™ orbital implant, both currently in clinical practice. He and his colleagues at Queensland Eye Institute were the first to investigate and report the use of silk proteins as biomaterials in ophthalmic tissue engineering.

Professor Chirila’s scientific activity has been widely recognized internationally. He is a member of Australasian Society for Biomaterials and Tissue Engineering, New York Academy of Sciences and American Chemical Society. Also, he is a member of the editorial boards of 11 scientific journals. In 2002, he was awarded Diploma of Excellence of the Euro-Asia Promotion & Cultural Foundation, and in 2014 he received the SRB Excellence Award from the Romanian Society for Biomaterials. He also became an Emeritus Member of the Politehnica Foundation.



The results obtained by Professor Chirila are in diverse research fields including polymer science, hydrogels, ophthalmic biomaterials, ophthalmic tissue engineering and regenerative medicine, supramolecular polymers, controlled release of bioactive agents, and history of science. His contributions to the science of biomaterials are recognized by all those working in this field and his name is forever linked to his contributions to ophthalmology and prevention of blindness. His scientific activity is not limited to the applications of polymers in ophthalmology. Professor Chirila has investigated the interaction between high-energy laser radiation and polymers; he invented and developed melanin-containing synthetic hydrogels, which are able to absorb UV and blue radiation; he has investigated the mechanism and prevention of spontaneous calcification of synthetic hydrogels and he demonstrated that the enforced formation of polymer interpenetrating networks (IPNs) can reduce calcium deposition; he developed a new concept for an artificial corneal endothelium; and other research projects. Most of the projects are intended to ultimately contribute to the worldwide efforts to eradicate blindness. The results of his work are presented in about 180 articles and book chapters, over 180 presentations at scientific gatherings, and 13 patents.