

BRIEF CURRICULUM VITAE

JOSÉ CUNHA-VAZ, M.D., Ph.D.

Born November 5, 1938, Coimbra, Portugal

Married. Three children.

1962- M.D., University of Coimbra, Portugal

1965- Ph.D., University of London, United Kingdom

1967- Doctor, Medical Science, University of Coimbra, Portugal.

Certified of American and Portuguese Boards of Ophthalmology

F.A.A.O. - Fellow of the American Academy of Ophthalmology

F.C. Ophth. - Fellow of the College of Ophthalmologists - U.K.

Appointments (present)

- President of the Board of Administration of AIBILI (Association for Innovation and Biomedical Research on Light and Image)
- Coordinator, Diabetic Retinopathy and Retinal Vascular Diseases Section, EVICR.net
- Editor-in-Chief of Ophthalmologica

Past Appointments (more relevant)

- 1972-2008: Professor of Ophthalmology and Head of Department of Ophthalmology, University of Coimbra, Portugal
- 1994-2007: President, Institute of Biomedical Research on Light and Image
- 1984-1986: Professor of Ophthalmology, Director of Lions of Illinois Eye Institute, Chicago, USA
- 1978-1981: Professor of Ophthalmology, Director of Retina Service, University of Illinois at Chicago, USA
- 1963-1966: Research Associate at Institute of Ophthalmology /Moorfields, London, U.K.

Honors and Awards

University of Coimbra Prize for Medicine (1962); National Research Prize of Instituto de Alta Cultura(1965); International Research Scholar, Research to Prevent Blindness (1978); Honor Award of the American Academy of Ophthalmology (1992); Diaz Caneja Prize and Lecture, Valladolid, Spain (1993); Commend of the Order of Public Instruction, Portugal (1993); Member of Academia Ophthalmologica Internationalis - Chair XLIV (1995); Bial Medicine Prize Honours (1996); Pioneer of Refractive Surgery Award (1998); Henkind Memorial Lecture (Macula Society - 1998); Alcon Research Institute Award (1998), Academia Portuguesa de Medicina - Chair XLVIII (2000); European Academy of Ophthalmology – Chair VII (2002); Helmholtz Gold Medal (European Society of Ophthalmology - 2007); Order of Henry the Navigator, (Portugal - 2007); Eva Kohner Award (European Association of Diabetic Eye Comlications – 2008); Ophthalmology Lifetime Achievements Award (Mediterranean Retina – 2008); Golden Medal of Distinguished Services (Ministry of Health of Portugal – 2009).

International Societies

European Academy of Ophthalmology (Secretary General); European Society of Retinal Specialists (Past-President); European Society for Cataract and Refractive Surgeon (Past President); European University Professors of Ophthalmology (Past President); International Society of Ocular Fluorometry (Past President); European Association for the Study of Diabetes (EASD); Club Jules Gonin; Macula Society; International Intraocular Implant Club; European Ophthalmic Pathology Society (Emeritus); Spanish Society of Ophthalmology (Emeritus); PAN-American Association of Ophthalmology (Lifetime member).

Research

P. I. for research grants from Instituto de Alta Cultura, Fundação Gulbenkian, Instituto Nacional de Investigação Científica, Junta Nacional de Investigação Científica e Tecnológica, Kroc Foundation, Research to Prevent Blindness, American Diabetes Association, National Institute of Health (National Eye Institute), European Union (Leader of a Concerted Action), Fundação para a Ciência e Tecnologia.

Investigator in more than 50 clinical trials / research projects in AIBILI since 1994.

Publications

Author and co-author of more than 450 articles, chapters and books.

6 Key publications:

- Cunha-Vaz, J.G., Shakib, M., Ashton, N.: Studies on the permeability of the blood-ocular barrier. I. On the existence, development and site of a blood-retinal barrier. *Br. J. Ophthalmol.* 1966, 50:411-453.
- Shakib, M., Cunha-Vaz, J.G.: Studies on the permeability of the blood-retinal barrier. IV. Junctional complexes of the retinal vessels and their role on their permeability. *Exp. Eye Res.* 1966, 5:229-234.
- Cunha-Vaz, J.G., Maurice, D.M.: The active transport of fluorescein by retinal vessels and the retina. *J. Physiol.* 1967, 191:467-486.
- Cunha-Vaz, J.G., Faria de Abreu, J.R., Campos, A.J., Figo, G.: Early breakdown of the blood-retinal barrier in diabetes. *Br. J. Ophthalmol.* 1975, 59:649-656.
- Lobo, C., Bernardes, R., Cunha-Vaz, J.G.: Mapping retinal fluorescein leakage with confocal scanning laser fluorometry of the human vitreous. *Arch. Ophthalmol.* 1999, 117:631-637.
- Lobo, C.L. Bernardes, R.C., Figueira, J.P., Faria de Abreu, J.R., Cunha-Vaz, J.G.: Three-year follow-up of blood retinal barrier and retinal thickness alterations in patients with type 2 diabetes mellitus and mild nonproliferative retinopathy. *Arch. Ophthalmol.* 2004, 122: 211-217.

Major Scientific Contributions

- 1965 – Effect of histamine on ocular vessels
Identification of Blood-Retinal Barrier (Arch. Ophthalmol., 73, 211, 1965)
- 1966 – Morphological basis of Blood-Retinal Barrier
First identification of tight junctions in Retinal vessels
(later confirmed in brain vessels too) (Exp. Eye Research 5, 229, 1966)
- 1967 – First demonstration of an active transport system in the
retinal vessels and retinal pigment epithelium (J. Physiology, 191, 467, 1967)
- 1967– Morphological characterization of mechanisms of
breakdown of Blood-Retinal Barrier (J. Path. Bacteriol., 93, 645, 1967)
- 1975 – Introduction of Vitreous Fluorofotometry (Br. J. Ophthalmol., 59, 649, 1975)
- 1980 – Role of breakdown of Blood-Retinal Barrier
in Retinal Diseases (The Blood-Retinal Barriers, Plenum Press, 1980)
- 1983 – Introduction of a commercial
Ocular fluorometer- the Fluorotron Master (Arch. Ophthalmol., 101, 1753, 1983)

- 1984 – The role of breakdown of Blood-Retinal Barrier in cystoid macular edema
(Surv. Ophthalmol. 28, 485, 1984)
- 1985 – Demonstration of increased vascular permeability
in the initial stages of diabetic retinal disease (Diabetes, 34, 53, 1985)
- 1990 – Demonstration of reabsorptive flux for
organic lesions in retinal vessels using a new
microperfusion technique (IOVS, 31, 471, 1990)
- 1999 – Mapping retinal fluorescein leakage with
confocal scanning laser fluorofotometry of the(Arch. Ophthalmol., 117, 681, 1990)
human vitreous (IEEE TBE, 52, 106,2005)
- 2002 – Introduction of the concept of Multimodal
Macula Mapping (Surv. Ophthalmol. 47, 580, 2002)
- 2004 – Characterization of different phenotypes of
nonproliferative retinopathy in diabetes type 2 (Arch.Ophthalmol., 122, 211, 2004)
- 2007 – Identification of predictive factors
for the development of diabetic macular edema (IOVS, 117,3, 2007)
- 2009 - Microaneurysm Turnover is a biomarker for diabetic retinopathy progression to
clinically cignificant macular edema: findings for type 2 diabetics with
nonproliferative retinopathy. (Ophthalmologica, 223:292-297)