

GLAUCOMA: PUTTING TREATMENTS TO THE TEST

Professor Augusto Azuara-Blanco is on a mission to improve the lives of patients with glaucoma – the second most common cause of blindness in the western world and the leading cause of irreversible blindness worldwide.

He has brought a new area of expertise to Queen's University's Centre for Experimental Medicine where there is already internationally-recognised excellence in research into other diseases of the eye, such as macular degeneration and diabetic retinopathy.

Augusto joined the staff of Queen's in 2013 from the University of Aberdeen where he had been Professor and Chair at the Health Services Research Unit. Previously he had been an NHS Consultant Ophthalmologist.

He says, 'Coming to Queen's was very exciting. Here we have a top unit with a great track record of quality research in

ophthalmology over many years. There are very few universities which have such a strong vision research department. We also have a superb clinical research facility and experienced researchers at the Northern Ireland Clinical Trials Unit, which has developed expertise in ophthalmological studies.

'It was a very positive opportunity for me. My research is very close to patients. I'm not heavily involved in the development of new treatments. My focus is on patient care – evaluating new treatments, diagnostic technologies and models of care, finding out whether they're effective and efficient.

'Sometimes something can work well in the lab, it may work well in the context of a trial, but does it work just as well in real life with NHS patients? That's my academic interest and I knew that when I came to Queen's I would be able to pursue those questions that are relevant to clinical practice.'

Funding for most of Augusto's academic work – over £5m, with half of this raised by

him as Principal Applicant – comes through the National Institute for Health Research. He says, 'Continued research is needed to find the best and most efficient treatment options for glaucoma patients, to halt the progression of the disease and to save sight. The prevalence and incidence of glaucoma increases with age and the ageing population is growing at a rapid rate.

'But glaucoma is up against many other healthcare needs. We're competing among different areas of health. However if you try to address an important research question and you have a strong application with a good team, then you have a very good chance of getting support.'

Augusto believes strongly in the dynamic that can be created by researchers working together. He collaborates with Professor Usha Chakravarthy on age-related macular degeneration and with Professor Noemi Lois – his wife – on diabetic retinopathy. 'The unit has a strong record in these areas but glaucoma is something new and we're

expanding. It's a very important area of research for patients and for the NHS.'

As Augusto points out, while many glaucoma patients lead normal lives, some cannot drive or administer their eye drops. Some have trouble finding jobs or remaining independent. All of this means that the high burden of cost of glaucoma blindness can be measured not just to healthcare and society but in diminished quality of life.

'Better treatments, more efficient health delivery or ways to diagnose early – those will have a knock-on effect. The message to take home is that providing eye care is very expensive. The burden of blindness for society is several billion pounds a year, so the potential impact on society of our research is substantial.'



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Professor Augusto Azuara-Blanco
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Medicine, Dentistry and Biomedical Sciences