

Seminar 27 October 2026

Understanding genetic eye disease: Insights for patient care through disease models

Professor Mariya Moosajee

Time: 16:00 Tuesday 27 October 2026

Venue: Radboudumc building F, route 790, De Kikker (M325.00.054) (on-site only)

Hosts: Jo Huiqing Zhou and Erwin van Wijk



Abstract

Genetic eye disease is a leading cause of blindness worldwide affecting children and working age adults with pathogenic variants in over 500 genes identified. This lecture will detail genetic conditions affecting various parts of the eye, and how studying model systems such as zebrafish and patient induced pluripotent stem cell derived ocular-related organoids, can provide insights into disease mechanisms. Finally, it will be discussed how this knowledge results in the improvement of clinical care we provide our patients.

Biography

Professor Mariya Moosajee is a Consultant Ophthalmologist specialising in Genetic Eye Disease and Head of the Genetics Service at Moorfields Eye Hospital, Professor of Molecular Ophthalmology at UCL Institute of Ophthalmology, and Group Leader of Ocular Genomics and Therapeutics at the Francis Crick Institute in London. She graduated with First Class Honours in Biochemistry and Molecular Genetics in 2000, Medicine (MBBS) in 2003, and was awarded her PhD in Molecular Ophthalmology in 2009 all from Imperial College London. She has been awarded over 40 international and national prizes for her research and has over 200 peer-reviewed scientific publications. She has been named in top 100 most influential people in ophthalmology worldwide in The Ophthalmologist Power List every year since 2022. Professor Moosajee is the President of the UK Eye Genetics Group. Her clinical research involves natural history studies on molecularly confirmed rare disease patient cohorts to better understand disease progression and define outcome metrics for clinical trials. In the laboratory, she is advancing our understanding of the molecular basis of inherited retinal diseases using various disease models, and developing non-viral genetic therapeutic approaches using small molecule drugs, mRNA, siRNA, DNA plasmid vectors and nanoparticles.