

Special Issue

Genetics of Eye Development and Diseases

Message from the Guest Editors

Genetics plays a key role in ocular development and diseases of the eye. Inherited eye diseases affect 1:1000 people, and as a group of genetic ocular disorders, they are a major cause of visual impairment in both children and adults. Understanding the genetic basis of Mendelian diseases is important for diagnosis, counseling, and prognosis. Discovering the molecular basis of genetic ocular development and diseases has been accelerated by advances in gene sequencing, yet challenges have been presented in the interpretation and modeling of genetic defects in silico and in vitro/vivo. GWAS has identified risk loci for common ocular diseases, and polygenic risk scores are being developed in order to stratify patient risk and improve clinical management pathways. Understanding the underlying genetic basis of ocular diseases not only improves our knowledge of disease pathogenesis and ocular physiology but also opens up the possibility of using gene-based therapies. In this Special Issue, we aim to encompass a range of approaches to understand, diagnose, and ultimately treat ocular genetic diseases from bench to bedside.

Guest Editors

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About the Journal

Message from the Editor-in-Chief

Genes is central to our understanding of biology, and modern advances such as genomics and genome editing have maintained genetics as a vibrant, diverse and fast-moving field. There is a need for good quality, open access journals in this area, and the *Genes* team aims to provide expert manuscript handling, serious peer review, and rapid publication across the whole discipline of genetics. Starting in 2010, the journal is now well established and recognised. Why not consider *Genes* for your next genetics paper?

Editor-in-Chief

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