Special Issue

Advance in Non-invasive Prenatal Testing: Ten Years of cfDNA-Based Screening and Diagnosis

Message from the Guest Editors

The presence of circulating cell-free DNA (cfDNA) from the placenta in maternal circulation was first demonstrated by Lo et al. Since its commercial launch in 2011, cfDNA-based non-invasive prenatal testing (NIPT) has permitted screening for T21, T18, and T13 with high specificity and sensitivity in both high- and low-risk populations. Using genome-wide cfDNA-based screening, all 24 chromosomes can be assessed, and rare fetal autosomal aneuploidies and segmental aneuploidies, such as deletions and duplications, can be revealed. NIPT has also been applied to determine fetal sex, fetal rhesus D (RhD), genotyping, and more recently for the identification of inherited monogenic disorders. This issue will focus on understanding the advances in non-invasive prenatal testing, from chromosome aneuploidies to monogenic disorders.

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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?

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