Special Issue

Functional Genomics, Genetics Breeding and Improvement of Domestic Animals

Message from the Guest Editors

With the rapid advancement of high-throughput sequencing technologies and functional genomics in domestic animals, the integration of multi-omics data has emerged as an efficient approach to identify both coding and non-coding genes, along with regulatory elements associated with economical traits. However, the breeding values derived from these advancements remain poorly evaluated, and their practical applications in breeding are largely understudied. Fortunately, genomic selection and gene editing have been proven to significantly expedite the breeding process. As a result, there is a growing need to develop new algorithms, methods and tools for genomic selection and gene editing, making them a research hot topic in the field of animal genetics and breeding. In this Special Issue, we invite original articles and reviews that contribute to our understanding of various aspects related to the identification of candidate genes and regulatory elements, the elucidation of molecular mechanisms underlying important economical traits, and the exploration of breeding methods and technologies for animal improvement. We eagerly anticipate your valuable contributions.

Guest Editors

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Deadline for manuscript submissions

closed (10 July 2024)

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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?

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