

Special Issue

Advances in Functional Genomics for Livestock Health, Production and Breeding

Message from the Guest Editors

Advances in functional genomics in farm animals rely on the availability of high-throughput omic technologies (transcriptomics, proteomics, epigenomics) and complex genomic data for all major farm animal species, enabling a better understanding of gene function and its impact on functional traits. This comprehensive approach enables the identification of functional genetic variants associated with animal health, productivity, sustainability, and robustness. DNA and RNA sequencing, chromatin accessibility studies, methylation profiling, protein analysis, and high-density SNP markers contribute to the identification of structural and regulatory variants affecting gene expression. This Special Issue aims to collect examples of good practice in application of different omics strategies for improvement of functional annotation of farm animal genomes. Topics of interest for publication include, but are not limited to, the following: Advanced GWAS analyses Transcriptomics Methylation profiling Genotype x phenotype interactions Genomic selection Adaptive capacity Advanced bioinformatic analyses

Guest Editors

Prof. Dr. Peter Dovč

Department of Animal Science, Biotechnical Faculty, University of Ljubljana, 1000 Ljubljana, Slovenia

Prof. Dr. Radovan Kasarda

Institute of Nutrition and Genomics, Faculty of Agrobiological Sciences, Slovak University of Agriculture in Nitra, 949 76 Nitra, Slovakia

Deadline for manuscript submissions

10 March 2027



Agriculture

an Open Access Journal
by MDPI

Impact Factor 4.5
CiteScore 7.8



mdpi.com/si/278385

Agriculture
Editorial Office
MDPI, Grosspeteranlage 5
4052 Basel, Switzerland
Tel: +41 61 683 77 34
agriculture@mdpi.com

[mdpi.com/journal/
agriculture](https://mdpi.com/journal/agriculture)





Agriculture

an Open Access Journal
by MDPI

Impact Factor 4.5
CiteScore 7.8



[mdpi.com/journal/
agriculture](https://mdpi.com/journal/agriculture)



About the Journal

Message from the Editor-in-Chief

Agriculture (ISSN 2077-0472) is an international, scholarly and scientific open access journal publishing peer-reviewed research papers, review articles, communications and short notes that reflect the breadth and interdisciplinarity of agriculture.

Editor-in-Chief

Prof. Dr. Les Copeland
Sydney Institute of Agriculture, School of Life and Environmental
Sciences, The University of Sydney, Sydney, NSW 2006, Australia

Author Benefits

Open Access:

free for readers, with article processing charges (APC) paid by authors or their institutions.

High Visibility:

indexed within Scopus, SCIE (Web of Science), GEOBASE, PubAg, AGRIS, RePEc, and other databases.

Journal Rank:

JCR - Q1 (Agronomy) / CiteScore - Q1 (Plant Science)