



an Open Access Journal by MDPI

Integrative Omics Technologies and Machine Learning Approaches in Animal Production

Guest Editor:

Dr. Sunday Peters

Department of Animal Science, Berry College, Mount Berry, GA, USA

Deadline for manuscript submissions:

8 May 2024



Dear Colleagues,

Advances in molecular biology have revolutionized research in livestock production. The application of genomics. transcriptomics. metatranscriptomics. nutrigenomics, metagenomics, proteomics, and metabolomics has not only provided the opportunity to decipher the genomic architecture underlying traits of interest but also enhanced our understanding of the molecular basis of growth, reproduction, and carcass merit, as well as the role of selection and nutrition and of other environmental factors. There is also a growing interest in the use of semi- and non-parametric methods for genomic prediction, because the conventional approach of using linear regression models has been said to ignore gene-gene interactions and higher order nonlinearities. In this context, machine learning approaches provide interesting alternatives for marker-based genomic selection and omics approaches.

This Special Issue invites manuscripts that apply omics technologies and those that utilize any machine learning approach in livestock production.

Dr. Sunday Peters Guest Editor





mdpi.com/si/56921





an Open Access Journal by MDPI

Editor-in-Chief

Prof. Dr. Clive J. C. Phillips

1. Institute of Veterinary Medicine and Animal Sciences, Estonian University of Life Sciences, Kreutzwaldi 1, 51014 Tartu, Estonia 2. Curtin University Sustainability Policy (CUSP) Institute, Kent St., Bentley 6102, Australia

Animals is an on-line open access journal that was first published in 2011. Animals adheres to rigorous peerreview and editorial processes and publishes only high quality manuscripts that address important issues in the many varied disciplines that involve animals, with a focus on animal science, animal welfare and animal ethics. Animals is covered in the Science Citation Index Expanded (SCIE) in Web of Science, with the latest Impact Factor: 3.0 (2022, ranks 12 /62 (Q1) in 'Agriculture, Dairy & Animal Science'; 13/143 (Q1) in 'Veterinary Sciences'), 5-Year Impact Factor: 3.2

Message from the Editor-in-Chief

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), PubMed, PMC, Embase, PubAg, AGRIS, Animal Science Database, CAB Abstracts, and other databases. **Journal Rank:** JCR - Q1 (*Veterinary Sciences*) / CiteScore - Q1 (*General Veterinary*)

Contact Us

Animals Editorial Office MDPI, St. Alban-Anlage 66 4052 Basel, Switzerland Tel: +41 61 683 77 34 www.mdpi.com mdpi.com/journal/animals animals@mdpi.com X@Animals_MDPI