Special Issue

Advances in Omics to Enhance Livestock Production

Message from the Guest Editors

With the growing human population expected to reach 9.7 billion by 2050, we are facing increasing pressure on global food supply chains. Economic growth in developing countries is further increasing the demand for higher-quality and more diverse food products, including animal-based products. To address this challenge, innovative technologies are essential to help improve livestock productivity and quality. Omics technologies, including genomics, transcriptomics, proteomics, and metabolomics, have been used and continue to show their potential in understanding the genetics and molecular pathways driving economically important traits such as animal growth, fertility and product quality. Additionally, with the help of advancements in bioinformatics and machine learning technologies, the integration of large omics datasets will become more efficient for precise breeding strategies, optimising animal growth rate and meat quality. We kindly invite researchers to contribute their original research papers, reviews, and short communications to this Special Issue.

Guest Editors

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Deadline for manuscript submissions

closed (31 May 2025)

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About the Journal

Message from the Editor-in-Chief

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: 2.7 (2024, ranks 15/86 (Q1) in 'Agriculture, Dairy & Animal Science'; 21/170 (Q1) in 'Veterinary Sciences'), 5-Year Impact Factor: 3.2.

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