Special Issue

Genetic Evaluation for Economically Relevant Traits in Small Ruminants

Message from the Guest Editors

Small ruminants serve as vital agricultural assets the world over, particularly in resource-limited regions where their productivity traits directly impact food security and rural livelihoods. Despite the widespread application of genomic technologies in cattle and pigs, genetic evaluation in small ruminants faces two major bottlenecks: (1) limited generalizability of genomic prediction models across diverse breeds/environments. and (2) insufficient systematic dissection of genetic regulatory networks underlying key traits. Concurrently, advances in artificial intelligence (AI) and multi-omics technologies enable breakthroughs in deciphering polygenic trait architectures and enhancing genomic prediction accuracy. Therefore, this Special Issue aims to advance genetic evaluation and mechanistic insights through (including but not limited to) the following key research directions Theme 1: Precision Genetic Evaluation Theme 2: Deciphering the Genetic Architecture of Economic Traits Theme 3: CRISPRbased editing and Al-driven precision breeding innovations We kindly invite researchers to contribute their original research papers to this Special Issue.

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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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