

Special Issue on
**Application of Genomics in the Identification of
Candidate Genes Linked to Important Traits in Domestic
Animals**

CALL FOR PAPERS

The development of research methods in molecular biology is closely related to the advances in agriculture including livestock breeding. The identification of genome regions and genes related to important phenotypic traits allows for selecting the candidate genes and genetic markers that are linked with the trait of interest. Marker-assisted selection (MAS) enables performing selection of young animals at the early stage of breeding and choosing the best animals for crossing allows improving selected trait a lot faster compared to standard methods. Such an approach allows increasing the financial benefits of animal production by accelerating the breeding progress.

In the recent decade, rapidly growing high-throughput techniques such as microarrays (SNP; cDNA) and next-generation sequencing (NGS), as well as better annotation of reference genomes, allow for the identification of candidate genes and mutations within genes that determine the quantitative traits of breeding importance or the genetic background of inherited diseases.

This special issue is dedicated to reports which apply the research in the field of genomics associated with the identification of candidate genes linked to important traits in farm animals. Authors are encouraged to submit original research as well as review articles concerning the identification of the genetic background of phenotypic traits in farm animals. We particularly welcome reports that focus on a broad range of high-throughput methodologies such as RNA-Seq, RAD-seq, ATAC-seq, and Chip-seq. Likewise, studies on the possible application of whole transcriptome, miRNAome, methylome, and degradome sequencing as well as whole genome/whole exome resequencing for the identification of genetic basis of phenotypic variation in domestic animals will be considered.

Potential topics include but are not limited to the following:

- ▶ Genomics in animal breeding
- ▶ Genomics in animal health
- ▶ Genetic diversity in terms of phenotypic variation
- ▶ Reproductive genomics in farm animals

Authors can submit their manuscripts through the Manuscript Tracking System at <https://mts.hindawi.com/submit/journals/ijg/agi/>.

Papers are published upon acceptance, regardless of the Special Issue publication date.

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