

## Special Issue

# Applied Genomics and Bioinformatics for the Poultry Industry

### Message from the Guest Editors

Genome selection and genetic improvement in poultry eggs and meat could produce protein efficiently as high-quality livestock. Poultry faces intense breeding pressure associated with poultry farming. Developing genomics and bioinformatics is critical for improving poultry breeding performance, including meat, reproduction, disease resistance, feathers, and so on, which can aid in breeding design and trait improvement. We are interested in articles that discuss improving poultry breeding performance through genomics and bioinformatics. Topics of interest include, but are not limited to:

- High-quality poultry genome assembly and annotation
- Poultry genome selection, genome mating and poultry breeding
- Genetic mechanisms in poultry
- Selection of genome during poultry domestication
- Variations related to poultry economic traits
- Gut microbiota - host genome interaction in poultry
- Regulatory networks for important biological processes in poultry
- Data resources for poultry panomics
- Identification of populations genetic diversity in poultry
- Transcriptional regulatory dynamics of economic traits in poultry

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### Guest Editors

Prof. Dr. Zhuocheng Hou

Dr. Jacqueline Smith

Prof. Dr. Qinghua Nie

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### Deadline for manuscript submissions

31 October 2025



## Applied Sciences

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### Message from the Editor-in-Chief

As the world of science becomes ever more specialized, researchers may lose themselves in the deep forest of the ever increasing number of subfields being created. This open access journal Applied Sciences has been started to link these subfields, so researchers can cut through the forest and see the surrounding, or quite distant fields and subfields to help develop his/her own research even further with the aid of this multi-dimensional network.

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### Editor-in-Chief

Prof. Dr. Giulio Nicola Cerullo  
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