

## Special Issue

# Molecular Insights into Animal Nutrition: Oxidative Stress, Polyphenols and Functional Feed Materials

### Message from the Guest Editors

Animal nutrition is crucial for health, productivity, and physiological balance. Advances in molecular biology, biochemistry, and omics have deepened understanding of how nutrients and bioactive compounds regulate metabolic pathways and cellular responses. Oxidative stress and ROS are key mechanisms linking nutrition to cellular function, immune responses, and overall physiological status. Functional feed additives, especially plant-derived polyphenols, attract interest for their antioxidant, anti-inflammatory, and cytoprotective properties. These compounds modulate oxidative balance and influence antioxidant defense, metabolic regulation, and cellular signaling. We welcome submissions to the Special Issue: “Molecular Insights into Animal Nutrition: Oxidative Stress, Polyphenols and Functional Feed Materials”. This Special Issue will highlight molecular mechanisms in animal nutrition, emphasizing oxidative stress, ROS, and bioactive dietary compounds such as polyphenols. The topic fits the journal’s molecular and biochemical scope. Understanding how nutrients and feed additives affect molecular pathways is vital for improving animal health, productivity, and sustainability.

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### Guest Editors

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### Deadline for manuscript submissions

30 September 2026



## International Journal of Molecular Sciences

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The *International Journal of Molecular Sciences (IJMS)* is an open access journal, which was established in 2000. The journal aims to provide a forum for scholarly research on a range of topics, including biochemistry, molecular and cell biology, and molecular biophysics. *IJMS* publishes both original research and review articles, and regularly publishes special issues to highlight advances at the cutting edge of research. We invite you to read recent articles published in *IJMS* and consider publishing your next paper with us.

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