

## Special Issue

# Molecular Research of Neonicotinoid Toxicity

### Message from the Guest Editor

Neonicotinoids are the most widely used insecticides; they target nicotinic acetylcholine receptors in insects. Neonicotinoids are water soluble and easily spread through groundwater to many water sources. The excessive use of neonicotinoids has led to their tremendous environmental accumulation in some countries; therefore, humans and wildlife are now at risk of diseases. Neonicotinoids affect many organs, including the nervous system, liver, immune system, and reproductive organs. It is suggested that neonicotinoids also exhibit endocrine-disrupting functions. Moreover, neonicotinoids can induce effects that are transmitted to subsequent generations, suggesting that some alterations induced by neonicotinoids are preserved in gametes.

The purpose of this Special Issue is to provide up-to-date information on the mechanisms of toxicity of neonicotinoids that highlight sex-specific effects in different model organisms; additionally, new studies on the genotoxic and epigenetic effects of neonicotinoids are welcomed.

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### Guest Editor

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### Deadline for manuscript submissions

20 December 2025



## International Journal of Molecular Sciences

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Impact Factor 4.9  
CiteScore 9.0  
Indexed in PubMed



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*International Journal of  
Molecular Sciences*  
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The International Journal of Molecular Sciences (*IJMS*, ISSN 1422-0067) 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, molecular biophysics, molecular medicine, and all aspects of molecular research in chemistry. *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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