

## Special Issue

# Molecular Mechanisms and Drug Research in Alzheimer's Disease

### Message from the Guest Editor

Alzheimer's disease (AD) remains a devastating senile dementia, characterized by progressive cognitive decline and neuronal demise. This Special Issue focuses on advancing our understanding of the molecular mechanisms underpinning AD etiopathogenesis and translating this knowledge into innovative therapeutic strategies. We invite original research articles, reviews, and perspectives that delve into novel signaling pathways, protein misfolding and aggregation, genetic and epigenetic regulators, mitochondrial dysfunction, glial cell contributions, synaptic integrity, dysbiosis, oxidative stress, neuroinflammation, metal homeostasis, the roles of the blood–brain barrier (BBB) and gut–brain axis, and so on. A core emphasis will be placed on translational research highlighting novel drug targets; the development and preclinical and clinical evaluation of small molecules, biologics, or repurposed drugs; biomarkers for therapeutic response; and innovative drug delivery approaches. The goal is to integrate novel findings and cutting-edge technologies, such as AI-based techniques, and accelerate the pipeline from mechanistic discovery to promising AD therapeutic candidates.

### Guest Editor

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### Deadline for manuscript submissions

28 February 2026



## Biomolecules

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*Biomolecules* is a multidisciplinary open-access journal that reports on all aspects of research related to biogenic substances, from small molecules to complex polymers. We invite manuscripts of high scientific quality that pertain to the diverse aspects relevant to organic molecules, irrespective of the biological question or methodology. We aim for a competent, fair peer review and rapid publication. Please look at some of the exciting work that has been published in *Biomolecules* so far. We would be delighted to welcome you as one of our authors.

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