

Special Issue

Advances in Alzheimer's Disease: From Metabolic Dysregulation to Molecular Pathophysiology and Therapeutics

Message from the Guest Editor

Alzheimer's disease (AD) is increasingly understood as a disorder at the crossroads of metabolism, inflammation, and neurodegeneration. This Special Issue welcomes cutting-edge contributions that illuminate how metabolic dysregulation, including neuroenergetic failure, brain insulin resistance, adipokine signaling, mitochondrial/redox imbalance, and peripheral-central crosstalk, drives the molecular pathophysiology of AD and reveals actionable therapeutic opportunities. We particularly encourage studies that (i) connect peripheral metabolic states to central mechanisms; (ii) integrate multi-scale data to uncover causal pathways; (iii) propose or validate biomarkers aligned with clinical endpoints; and (iv) demonstrate mechanistic engagement of targets. Methodology papers that enhance reproducibility, transparency, and open science (e.g., standardized pipelines, sharable code/datasets, and reporting checklists) are also welcome.

Our goal is to assemble a forward-looking collection that maps the continuum from metabolic dysregulation to molecular insight to therapeutic translation, accelerating progress toward meaningful prevention and treatment in AD.

Guest Editor

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About the Journal

Message from the Editor-in-Chief

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.

Editor-in-Chief

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