

Special Issue

Molecular Mechanisms and Signaling Pathways in Neuroinflammatory Disorders

Message from the Guest Editors

Cerebral small vessel dysfunction and dementia exhibit an increasing prevalence in the world's aging population. After Alzheimer's disease, vascular dementia represents the second most common dementia diagnosis. Interestingly, vascular dementia is also linked to Parkinson's disease, particularly to vascular Parkinsonism. However, the underlying molecular mechanisms are far from being characterized. Recent evidence points to an intricate interplay of vessel dysfunction, microglia sensing, and blood–brain barrier defects, subsequently worsening both vascular dementia and Alzheimer's disease. In addition, studies have reported that air pollutant exposure plays a potential role in the development or aggravation of neurodegenerative diseases, pointing to the importance of the lung–brain and nose–brain axis. This Special Issue aims to define the novel mechanisms underpinning the molecular mechanisms leading to the induction of vascular dementia, neuroinflammation, and blood–brain barrier defects.

Guest Editors

Prof. Dr. Martina Schmidt

1 Groningen Research Institute of Pharmacy, Department of Molecular Pharmacology, University of Groningen, 9713 AV Groningen, The Netherlands

2 Groningen Research Institute for Asthma and COPD (GRIAC), University Medical Center Groningen, University of Groningen, 9713 AV Groningen, The Netherlands

Dr. Karim Rafie

Department of Molecular Pharmacology, Groningen Research Institute of Pharmacy (GRIP), University of Groningen, 9713 AV Groningen, The Netherlands

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MDPI, Grosspeteranlage 5
4052 Basel, Switzerland
Tel: +41 61 683 77 34
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Editor-in-Chief

Prof. Dr. Maurizio Battino

Department of Odontostomatologic and Specialized Clinical Sciences,
Sez-Biochimica, Faculty of Medicine, Università Politecnica delle
Marche, Via Ranieri 65, 60100 Ancona, Italy

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