

Tentative Outline

Special Thematic Issue for the journal *Current Neuropharmacology*

Understanding brain diseases: From receptor dysregulation to neurodegeneration, neuroinflammation and memory impairment.

Guest Editors: Fabiola M. Ribeiro

• **Scope of the Thematic Issue:** Various receptors expressed in the brain, including glutamate and cannabinoid receptors, were shown to play a role in psychiatric and neurodegenerative diseases, such as schizophrenia, Alzheimer's, Parkinson's and Huntington's disease. Moreover, dopaminergic and adrenergic receptors are very relevant to addiction. As many of these receptors are expressed not only in neurons but also in glia cells, their activation or inhibition have the potential to modulate cell death, inflammation and brain plasticity. An understanding of the mechanisms underlying their modulation will facilitate the development of both preventative and treatment strategies for various brain disorders. Authors are encouraged to submit review articles discussing current research regarding the involvement of neurotransmitters and their receptors in diseases affecting the brain.

Keywords: Receptor, neurodegeneration, neuroinflammation, memory, neuroplasticity, Alzheimer's disease, Parkinson's disease, Huntington's disease, multiple sclerosis, addiction.

Sub-topics:

- Glutamate receptors and neurodegenerative processes.
- Cell signaling alterations implicated in brain disorders.
- Neuronal:glial interactions involved in brain disorders.
- Receptor dysregulation and addiction.
- Neuropsychiatric disorders and related receptors
- Development of new pharmacological strategies to treat brain disorders
- Genetic strategies aiming at receptors involved in brain diseases
- Neuroinflammation and brain disorders.

Tentative titles of the articles and list of contributors:

Title: Receptor for advanced glycation endproducts as a target to treat neurodegenerative diseases.

Antonio Carlos P. Oliveira, Associate Professor, Pharmacology Department, Universidade Federal de Minas Gerais, antoniooliveira@icb.ufmg.br.

Title: Involvement of kynurenine pathway in neurodegenerative diseases

Antonio Lucio Teixeira, Adjunct Professor, Department of Neurology, McGovern Medical School, The University of Texas Health Science Center at Houston, Antonio.L.Teixeira@uth.tmc.edu

Title: The NLRP3 inflammasome in stress response: another target for the promiscuous cannabidiol?

Sabrina F. S. Lisboa, Associate Professor, Pharmacology Department, Universidade de Sao Paulo, sabrinalisboa@usp.br.

Title: Contrasting roles of cannabinoid receptors in modulation of psychostimulant-responses

Fabricio A. Moreira, Associate Professor, Pharmacology Department, Universidade Federal de Minas Gerais, farmoreira@yahoo.com.br.

Title: Glutamate receptors in Alzheimer's disease: targeting glial cells.

Fabiola M. Ribeiro, Associate Professor, Biochemistry and Immunology Department, Universidade Federal de Minas Gerais, fmribeiro@icb.ufmg.br

Title: mGluR5 and autophagy: role in neurodegenerative diseases.

Stephen S. G. Ferguson, Associate Professor, Department of Cellular and Molecular Medicine, University of Ottawa, sferguso@uottawa.ca.

Schedule:

✧ Thematic issue submission deadline: June/2021

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