

Tentative Outline

Special issue for Protein & Peptide Letters

Guest Editor: Lucas M. Kangussu

Renin-Angiotensin System: Role in cerebrovascular, neurodegenerative and psychiatric disease

Aims & Scope:

The renin–angiotensin system (RAS) is an endocrine system which produces angiotensin peptides through an enzymatic cascade. The RAS initiates with angiotensinogen (AGT) expression at different tissues. This protein is produced by several cell types, however, in normal physiology, the liver is still considered the primary source of circulating AGT. Kidney enzyme Renin, cleaves AGT to produce angiotensin I (Ang I), a peptide that is hydrolyzed by angiotensin-converting enzyme (ACE) to the octapeptide, Angiotensin II (Ang II), which acts through of specific receptors (AT₁ and AT₂ receptors). Besides Ang II, several other angiotensin peptides formed from AGT have biological activity; nevertheless, the main one is Ang-(1–7), that broadly opposes Ang II actions. Ang-(1–7) is a product of the Ang II degradation through the action of the ACE-homologue enzyme ACE2 and also directly from Ang I by prolylendopeptidase (PEP) and NEP. Ang-(1–7) interacts with the Mas receptor and more recently was described similar effects of Alamandine thought MrgD receptor. Very recently, new peptides have been described and added to this complex system. Cerebrovascular, neurodegenerative and psychiatric diseases are among the leading cause of morbimortality in the world. Several studies have associated cerebrovascular, neurodegenerative and psychiatric diseases with important alterations in systemic and local/tissue RAS. For this reason, in this special issue, we invite investigators to contribute with reviews and research articles that will help us better understand the role of angiotensin peptides in the cerebrovascular, neurodegenerative and psychiatric diseases.

Keywords: Renin–angiotensin system, Angiotensin peptides, Cerebrovascular diseases, Neurodegenerative diseases, Psychiatric diseases

Subtopics:

RAS in Cerebrovascular diseases
RAS in Neurodegenerative diseases
RAS in Psychiatric diseases
Physiology and Pharmacology of RAS
Cell signaling and RAS modulation

Schedule:

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Peer review due: July 5th, 2019
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