Aims & Scope:
The study of natural compounds produced by plants and animals led to the discovery and development of substances provided with biological activity and therapeutic potential. The oldest studies were addressed mainly to microorganisms and to terrestrial plants and led to the recognition of several organic compounds to date useful mainly in oncology and in infectiology. On the contrary, extracts from aquatic, particularly marine, organisms, notwithstanding their abundance and variety have had lower utilization in pharmacology. Natural bioactive compounds include biotoxins and venoms, whose production characterizes a number of marine organisms. In particular, marine-derived substances have been reported to be promising as potential antiviral, antinflammatory and antitumoral agents and some of them were indicated to be muscle relaxants, analgesics, anaesthetics or were utilized in neurophysiological research to study the transmission of nerve impulse. Among venomous organisms Cnidaria are well known for their stinging properties and are able to cause dermatologic, cardiology and neurologic diseases. On his basis, scope of this issue is to give an overview of the knowledge and to present new experimental data about compounds extracted from Cnidaria with a particular view to their activity at the nervous system level in the perspective of their utilization as therapeutic tools to treat human diseases.

Keywords: Cnidaria, natural compounds, extracts, venoms, nervous system, neurological diseases

Subtopics:
Occurrence of the ShK-like toxin family in box jellyfish. Molecular identification, protein expression studies and analysis of gene expression.

New analgesic polypeptide - modulators of pain channels from sea anemones

Activity of drugs and compounds of natural origin on aquatic organisms.

Neurotoxic and neuroactive compounds from Cnidaria: five decades of research ........ and more

Crude venom from nematocysts of the jellyfish Pelagia noctiluca as a tool to study cell physiology

Scyphozoans of the Mediterranean: state of the art and future perspectives.

Toxicity of Mediterranean Scyphomedusae: an overview

Identification and molecular characterization of two cytotoxic proteins from the Irukandji Box Jellyfish M. kingi
Schedule:
- Manuscript submission deadline: November 28, 2014
- Peer Review Due: January 30, 2015
- Revision Due: February 27, 2015
- Announcement of acceptance by the Guest Editors: March 27, 2015
- Final manuscripts due: April 24, 2015

Contacts:

Guest Editor

Gian Luigi Mariottini – Department of Earth, Environment and Life Sciences, University of Genova, Italy
Email: Gian.Luigi.Mariottini@unige.it