

## Special Issue on **Oxidative Stress in Acute Brain Injuries: Natural Products as a Therapeutic Option**

# CALL FOR PAPERS

Acute ischemic stroke (AIS), intracerebral hemorrhage (ICH), subarachnoid hemorrhage (SAH), and traumatic brain injury (TBI) are some of the most devastating acute brain injuries. In fact, TBI and AIS are the two leading causes of disability worldwide. These kinds of injuries initiate a multitude of cascades of pathological cellular pathways. Unfortunately, in the last three decades dozens of compounds that showed promising results in preclinical studies failed at the clinical trial stage. Thus, there is an urgent need to 1) deepen into the understanding of cellular and molecular mechanisms that govern these types of injuries and 2) find an effective treatment that could be administered within a clinically relevant therapeutic window.

In this regard, plant-derived natural compounds have been postulated as promising drugs for treating acute brain injuries by controlling inflammation and oxidative stress. Moreover, these natural compounds usually show very low toxicity and reduced interactions with other pharmaceuticals.

We invite investigators to contribute with original research articles that help us to understand the pathological hallmarks of acute brain injuries, as well as the relationship between oxidative stress and inflammation in the possible treatment of these kind of diseases by the use of plant-derived natural compounds. We are interested in basic research articles both *in vivo* and *in vitro*, review articles, and clinical studies that could be associated with a decision-making process to make easier its translation to clinical practice.

Potential topics include but are not limited to the following:

- ▶ Natural products and their chemical derivatives in controlling redox imbalance and inflammation in the blood-brain barrier breakdown
- ▶ Plant-derived natural compounds and their chemical derivatives for reducing oxidative stress and neuroinflammation in acute brain injuries
- ▶ Plant-derived natural compounds and their chemical derivatives for neuroprotection
- ▶ Signaling pathway identification of natural products and their derivatives for neuroprotection
- ▶ New targets and mechanisms of action of plant-derived natural compounds for the treatment of acute brain injuries

Authors can submit their manuscripts through the Manuscript Tracking System at <http://mts.hindawi.com/submit/journals/omcl/nctho/>.

Papers are published upon acceptance, regardless of the Special Issue publication date.

### **Lead Guest Editor**

Esther Parada, Autonomous University of Madrid, Madrid, Spain  
[esther.parada@inv.uam.es](mailto:esther.parada@inv.uam.es)

### **Guest Editors**

Elena González-Burgos, Complutense University of Madrid, Madrid, Spain  
[elenagon@ucm.es](mailto:elenagon@ucm.es)

M. Dolores Martín-de-Saavedra, Northwestern University Feinberg, Chicago, USA  
[lola.mds@northwestern.edu](mailto:lola.mds@northwestern.edu)

Ana Vicente-Sanchez, Northwestern University Feinberg, Chicago, USA  
[avicente@northwestern.edu](mailto:avicente@northwestern.edu)

### **Submission Deadline**

Friday, 13 October 2017

### **Publication Date**

March 2018