



BioMed Research International

Special Issue on  
**Insect Interactions, New Sources for Agriculture,  
Biomedicine, and Industrial Applications**

# CALL FOR PAPERS

The completion of increasing number of whole genome sequences and the development of a range of sophisticated postgenomic tools as transcriptomic and proteomic approaches allow the investigations into biological processes at an unparalleled level of details. Research on insects has yet to fully embrace the opportunities of comparative and postgenomic approaches. These will allow us to look at insects as new model organisms. Conservation of molecular pathways at all levels, from the control of DNA synthesis, to the developmental control of morphogenesis in higher eukaryotes, means that fundamental discoveries in exceptionally powerful and tractable model systems can directly translate to understanding disease in human or to use them as a new huge source of processes and molecules useful in medical, agricultural, and industrial processes for human benefit.

Insects represent the largest and the most diverse group of living organisms and are involved in very different agonistic and antagonistic interactions with other species. This diversity is particularly apparent in the adaptations evolved by insect parasitoids to parasitic life. These have developed a huge range of host colonization strategies, all resulting in severe pathological syndromes in the parasitized hosts. Thus the study of the physiological and molecular mechanisms underlying these host-parasitoid associations is a very interesting and nearly unexploited opportunity to isolate genes and molecules with insecticidal activity or use in medical, pharmaceutical, agricultural, or industrial applications.

We invite investigators to submit original research articles and reviews that will contribute to all the aspects of host-parasitoid interactions in insects as well as parasite vectors interactions and how they can be a new source of genes, molecules, and mechanisms of interest in agriculture, biomedical, and industrial fields.

On the other hand, we are equally interested in articles that describe more in general the “Insect Biotechnology,” considered as the use of insects, as well as insect-derived cells or molecules, in medical, pharmaceutical, agricultural, industrial, or other applications such as biomimetics, in other words insect and their parasitic interactions as a source to produce medication, bioinsecticides, or new materials, cosmetics, and food.

Potential topics include, but are not limited to:

- ▶ New approaches and techniques for investigating, isolating, and characterizing parasitoid origin factors
- ▶ Innovative approaches based on biotechnologies in pests control
- ▶ Molecular basis of tritrophic interactions in insects
- ▶ Insects and their interactions as source of therapeutic molecules in human diseases
- ▶ Insects as new models in medicine
- ▶ Insects and their interactions as inspiration source in biomimetics
- ▶ Effects of climatic changes in insect interactions
- ▶ Insect as plant or human diseases vectors

Authors can submit their manuscripts via the Manuscript Tracking System at <http://mts.hindawi.com/submit/journals/bmri/biotechnology/inhi/>.

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**Manuscript Due**

Friday, 29 January 2016

**First Round of Reviews**

Friday, 22 April 2016

**Publication Date**

Friday, 17 June 2016