

THE 10TH INTERNATIONAL WORKSHOP ON

MOLECULAR BIOLOGY AND GENETICS OF THE LEPIDOPTERA

Dear Colleagues,

With this circular we wish to inform you that the web site for the 10th International Workshop on the "Molecular Biology and Genetics of the Lepidoptera" on August 19-25, 2018, is now up and running at https://web.uri.edu/lepidoptera. In it, you will find all the information you need to have about your travel to Greece and the venue at the Orthodox Academy of Crete (OAC), the required registration and abstract submission forms and links to other useful information.

We plan to organize scientific sessions under the following broad areas:

- Genome Sequencing and Mapping
- Comparative Genomics, Evolution and Phylogeny
- Post-genomic and Functional Genomic Tools and Applications
- Development and Differentiation
- Endocrinology, Physiology and Biochemistry
- Receptors and Ligands
- Immunity
- Neurobiology
- Transgenesis and Paratransgenesis
- Viruses, Other Pathogens and Pest Control
- Chemical Ecology

Although by necessity we are keeping the titles of the sessions short, we are inviting your abstracts for presentations for a range of topics to be grouped under these session headings. Examples of such topics include the following:

- Genomics and Genetics
  - Genome and chromosome structure and evolution
  - Population genetics and systematics
  - Genomics-based tools for trait identification and population diagnostics
  - Positional cloning
  - Molecular mimicry and adaptation
  - Mono-, oligo- and polyphagy of herbivores
  - Insecticides, resistance and detoxification
  - Species adaptation, invasiveness and control

- Development and Physiology
    Cell differentiation
    Endocrinology and hormonal control of development and metamorphosis
    Wing patterning
    Sex determination
    Reproduction
    Immunity
    Neurobiology and behaviour
- Functional genomics and post-genomic tools and applications
    Tissue and cell-specific transcriptomics and proteomics
    Basic regulatory mechanisms
    Epigenetic control of gene expression
    RNA-guided genome editing
    RNA-mediated control of gene expression
    RNA delivery tools (nanoparticles, RNPs, aerosols)
    Recombinant protein expression and post-translational processing systems and applications
- New molecular tools (optogenetics, high throughput (nanopore) sequencing and DNA methylation, fluorescence tags for imaging and macromolecular interactions, genetic and optogenetic cell ablation)
- Parasite and microbiotic control of insect physiology (Wolbachia, Polydna viruses, gut flora)
- Pathology and pest control (pathogens, parasites and viruses)
- Genetic manipulation for plant eaters - understanding fundamental mechanisms
- Chemical ecology (olfaction, gustation, host plant recognition, other forms of chemical communication, interference with chemosensation)

Finally, we also wish to organize a number of special afternoon sessions (to last from 1-2 hours each) with dedicated abstracts on the following topics:

- Progress on RNA-mediated control of gene expression (coordinator TBA)
- Genetic manipulation tools: progress, applications, problems and prospects (TALEN, CRISPR, off-target effects, improvements, somatic mutagenesis, etc.) (coordinator TBA)
- Environmental perspectives for genome editing and gene drive for pest control (coordinator TBA)
- Basic and applied research on genetically modified silkworms (Bombyx mori and other species) (coordinated by Toru Shimada)
- Networking and funding initiatives for emerging agricultural and forest pests and systems for pest control (coordinated by Emmanuelle d'Alencon, Astrid Groot, Michel Cousson and Paul Shirk)

Please note that in accord with the informal and collaborative nature of the Workshop we welcome additional timely suggestions for the program!

The detailed Workshop Program will become available after the Registration period.

Looking forward to a successful meeting in 2018,

Kostas Iatrou and Marian Goldsmith