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Three (3) Postdoctoral Researcher Positions [Ref # INT-0045]

The research group of Molecular Entomology (PI: John Vontas) of IMBB/FORTH, Crete, Greece is interested to employ three senior postdoctoral researchers to work on a project looking for novel insecticide targets in insect gut (lepidopteran and hemipteran):

(1) Postdoctoral Position: Insect Gut Physiologist, to investigate insect gut uptake and metabolic processes.

The successful candidate must have a strong background in insect physiology, with a special interest in gut physiology and a focus on processes of uptake and metabolism in insect guts. Experience with assays involving transport of compounds (proteins, peptides, RNA, small molecules) across gut barriers is a huge plus.

The researcher's tasks during the project involve design, establishment and validation of gut-based assays for investigation of uptake/metabolism processes as well as penetration mechanisms of small molecules (with focus on transporters) across gut epithelia.

(2) Postdoctoral Position: Insect Cell models (3D) for insecticide screens, to investigate insect cell-based models analogous to Pharma (i.e. hanging drops, 3D organoids) models for uptake, metabolism, and insecticide screens.

The successful candidate must have a strong background in cell culture of primary and immortalized cells (focus on insect cells is highly desirable). Experience with 3D cultures and relevant assays involving transport of compounds (proteins, peptides, RNA, small molecules) across spheroids/cell layers is a huge plus.

The researcher's tasks during the project will involve establishment of primary cultures from insect gut cells, as well as validation of potentially available immortalized insect gut cell lines. The researcher will explore the probability of generation of insect cell 3D cultures, and the development of relevant cell-based assays for uptake, metabolism and insecticide screens.

(3) Postdoctoral Position: Insect functional genomics, to investigate insect RNAi and CRISPR-Cas9 based approaches for screens relevant to uptake, metabolism, and potential insecticide targets in insect gut.

The successful candidate must have a strong background in biochemistry/molecular biology, and especially in RNAi and/or CRISPR-Cas9 in insects (focus with Lepidoptera CRISPR-Cas9 and/or Hemiptera RNAi). Experience with different delivery methods (injection, feeding, use of genetically engineered plants) is a plus.

The researcher's tasks during the project will involve establishment of successful RNAi and genetic transformation methodology in insect (Lepidoptera and Hemiptera) gut tissue (and potentially gut-derived cell lines), and the development of high-throughput assays for screening and validation through RNAi of genes related to uptake, metabolism and potential insecticide targeting.

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Qualifications: PhD and Post-doctoral experience in Biology / Molecular Biology / Biochemistry / related fields, as specified.

Contract Duration: 24 months, renewable up to 54 months based on the program's needs

Salary: 2.000,00 € – 3.000,00 € / month (including taxes and social security contributions)

Envisaged starting date: July – October 2017

Application submission: Interested candidates should submit their application electronically by July 7, 2017 @ 13.00

The application should consist of:

1. CV
2. Brief statement of interest
3. The names of two referees

Evaluation procedure

Applications will be evaluated by a three-member evaluation committee. Short listed candidates will be invited to participate in person or teleconference interview.

The announcement of the results will be posted on the website of FORTH-IMBB.

The selected candidate will be notified personally regarding the success of his/her application and will be requested to submit certified copies of his/her degrees. In the event that the documents submitted to not agree with the original application the candidate will be dismissed.

Note: It is not guarantee that somebody will be employed for each post

Information and submission of applications

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