

Postdoc: Emory University, Host-parasite interactions

Post-Doctoral Position, Host-parasite interactions

Emory University, Atlanta, GA USA

Laboratories of Drs. Jacobus de Roode and Nicole Gerardo

A postdoctoral position is available for research on the coevolutionary interactions between monarch butterflies, their parasites and their larval host plants. The project would focus on identifying the molecular basis of host resistance to parasitism, and involve a combination of functional genomics, experiments and fieldwork. The postdoc would assemble sequences derived from 454 sequencing of cDNA, annotate genes using existing genome databases of insects and protozoan parasites, and implement statistical analyses to compare the transcriptome of infected and uninfected individuals. He/she would also carry out experiments to study the expression of candidate resistance genes in infected and uninfected monarchs, and in monarchs reared on different host plant species. Additional projects may focus on the population genetics and co-phylogenies of monarchs and their parasites in natural populations.

This is a joint project between the laboratories of Jacobus de Roode and Nicole Gerardo. Both labs combine field work, experimentation and molecular genetics to study host-parasite coevolution, and address questions related to virulence evolution, mutualism, and the molecular evolution of host resistance. The labs are part of Emory's Population Biology, Ecology and Evolution program, which has a strong focus on host-parasite interactions and molecular genetics. For more information on the labs and program, see: <http://www.biology.emory.edu/research/deRoode/>
<http://www.biology.emory.edu/research/Gerardo/>
www.biomed.emory.edu/PROGRAM_SITES/PBEE/

Candidates must have a strong background in bioinformatics, with emphasis in functional genomics and gene annotation, and should have an interest in evolutionary biology and host-parasite interactions. The postdoc is also expected to take part in the training of graduate and undergraduate students.

The position will be available for 1 year initially, with the possibility of a 1-2 year extension. Salary will be based on experience and will follow NIH guidelines; benefits will be provided. Applications should be sent by 20 January 2009 (to jderood@emory.edu), and be accompanied by a short research statement, a CV and the names of 3 referees. The postdoc would ideally start no later than April 2009.

For more information, please contact Jacobus de Roode on jderood@emory.edu or 404 727 2340.