



Schistosomes & snails: Functional analysis of candidate disease resistance genes

A postdoctoral position is available to start in Spring 2019 in Michael Blouin's lab at Oregon State University, Department of Integrative Biology (<http://people.oregonstate.edu/~blouinm/>).



Position:

The aim of this project is to identify genes in the snail, *Biomphalaria glabrata*, that convey resistance to *Schistosoma mansoni*, a major parasite of humans that is transmitted by this snail host (<https://en.wikipedia.org/wiki/Schistosomiasis>). We have mapped major QTL that control infection risk in laboratory populations of snails, and have annotated nearby candidate genes. The goal for this position is to functionally assess candidate genes for their role in resistance. The main approach will be gene knockdowns using RNAi, but may include CRISPR or other techniques. Once causal gene(s) are identified, work will focus on their mechanisms of action, including how they interact with parasite-derived molecules. The long-term goal of this research is to find ways to block transmission of schistosomiasis via interference with the snail host. *Biomphalaria* and *Schistosoma* form a well-studied, model host-parasite system with numerous available molecular and genomic resources and established laboratory protocols. We are looking for a creative individual who will also develop their own ideas using this system.

Qualifications:

The successful candidate will hold a PhD in biology or a related science and be able to document substantial expertise in molecular/cellular biology or immunology. Strongly desired qualifications include experience with RNAi and/or alternative gene knockdown/knockout techniques. Other desirable qualifications include experience in microscopy and immunohistochemistry techniques, background in protein biochemistry, and training in immunology. We are looking for a highly motivated and enthusiastic candidate with excellent writing and communication skills. Ability to start in Spring of 2019 would be desirable (earlier is possible).

The position will be advertised officially on OSU's website soon. In the meantime, for more information contact Mike at blouinm@science.oregonstate.edu and include "Snail postdoc position" in the title of your email.

If you are interested in applying, please also include:

- a cover letter indicating how your qualifications and experience have prepared you for this position, and what interests you about joining this project.
- a curriculum vitae that includes the names of at least three professional references, their email addresses and telephone contact numbers.