WISCONSIN INSTITUTES FOR
DISCOVERY

MORGRIDGE INSTITUTE FOR RESEARCH
WISCONSIN INSTITUTE FOR DISCOVERY

Postdoc in Approximate Bayesian Computation and Systems Biology at UW-Madison

We are seeking a postdoc with interests in Bayesian parameter estimation, systems biology and the integration of diverse software components.

The goal of this project is to implement and integrate existing computational tools into a software framework for parameter estimation in complex biological systems. This work will use an existing simulation model of the Cholesterol synthesis pathway as an example. To implement the software system it will be necessary to integrate software for Approximate Bayesian Computation (ABC), distributed computing (Condor) and stochastic simulations.

This is an excellent opportunity to learn about ABC, distributed computing and systems biology or to get real life experience of how modeling is done in systems biology today.

Ideally, the successful candidate would have the following skills:

- Experience or a strong interest in integrating software systems.
- Experience or interest in programming in C++ and/or Python.
- Experience or interest in parameter estimation or systems biology or distributed computing.

Due to the interdisciplinary nature of the work, candidates willing to learn some of these skills are encouraged to apply as well. Candidates with a background in ABC and evolution are also very welcome.

You will work in an interdisciplinary environment with

- Prof. L. Loewe, (http://evolution.ws/people/loewe/)
- Prof. M. Ferris, (http://www.cs.wisc.edu/~ferris/)
- Prof. M. Livny (http://www.cs.wisc.edu/~miron/)

at the newly opened Wisconsin Institute for Discovery (http://discovery.wisc.edu/wisconsin/) at the University of Wisconsin-Madison. You will also collaborate internationally with other groups on ABC and Cholesterol synthesis models.

Review of applications starts immediately and the position will remain open until a successful candidate has been found.

To apply, interested applicants should forward their CV including a publication list, contact details of three reference writers and a one page description of their experience and research interests related to this position.

For more information and for applying, please contact Laurence Loewe directly
(Loewe at wisc dot edu).

Related information and updates regarding to this job can be found at:
http://evolution.ws/people/loewe/jobs