



Postdoctoral fellow: Bioinformatics, Phenotypes

The Phenoscape project (<http://phenoscape.org>) is recruiting a postdoc with training in bioinformatics who is interested in analyzing genomic and developmental data in relation to phenotypic data.

The problem of how organismal phenotypes have evolved, are constrained, and acquire novelty, is one of the grand challenges in biology. The Phenoscape group has developed ontology-based methods for representing species phenotypes so that they can be integrated with model organism developmental and genetic data. The project's Knowledgebase (kb.phenoscape.org) contains over 500,000 fish species phenotypes that are linked to 4,000+ gene phenotypes from zebrafish. The project is currently scaling up to include evolutionary phenotypes from other vertebrates and gene phenotypes from additional models (mouse, *Xenopus*). These data present a tremendous opportunity for integration with other data types, including large scale gene expression, miRNA, transcriptomics, and other genomic data to address questions about the evolution of phenotype. We are interested in applicants who have an independent project that uses the Phenoscape Knowledgebase as a research platform.

This position presents a unique opportunity to pursue bioinformatic research into broad questions concerning the evolution of morphology in relation to linked developmental and genetic data. The postdoc will work closely with data and personnel from the evolutionary and vertebrate model organism databases; participate in regular virtual meetings with a distributed project team; and leverage the data in the Phenoscape Knowledgebase and other databases for large-scale analysis of patterns of phenotypic evolution.

Starting date: This postdoctoral position is available to be filled as early as September 2012, and is funded for two years.

Required qualifications:

- Ph.D. degree with strong background in bioinformatics and statistics; previous experience with ontologies or ontology-driven data mining preferred
- Excellent communication skills, and ability to work as part of a distributed research team
- Experience in molecular biology or developmental biology

How to apply:

The postdoctoral fellow will work with Paula Mabee (University of South Dakota) and Todd Vision (University of North Carolina) as well as others in the project team. The position will be based in South Dakota, with opportunities to travel to other sites for this project including the National Evolutionary Synthesis Center (NESCent), the University of Chicago, and the California Academy of Sciences.

Please contact Dr. Mabee (pmabee@usd.edu) with any questions about this position. Applications should be directed to Dr. Mabee and include a cover letter, CV, a brief statement detailing your research interests and career goals, and three letters of reference.

For more information see <https://phenoscape.org> and <http://kb.phenoscape.org/>.