# UNIVERSITY OF CALIFORNIA, SANTA CRUZ

## JACK BASKIN SCHOOL OF ENGINEERING
### DEPARTMENT OF BIOMOLECULAR ENGINEERING

### Postdoctoral Scholar, Genome 10K Sample Collection

Applications are invited for a Postdoctoral Scholar position to undertake a pilot sequencing project in the laboratory of David Haussler, Professor of Biomolecular Engineering at UCSC, in conjunction with Oliver Ryder, Kleberg Chair of Genetics of the Zoological Society of San Diego and Adjunct Professor of Biology at UCSD, and Stephen O'Brien, Chief of the Laboratory of Genomic Diversity at the National Cancer Institute.

The Genome 10K project aims to assemble a genomic zoo—a collection of DNA sequences for 10,000 vertebrate species, approximately one for every vertebrate genus. The trajectory of cost reduction in DNA sequencing suggests that within a few years it will be feasible to sequence a fully representative set of more than 10,000 genomes, capturing much of the genetic diversity of vertebrate species. This would represent an unprecedented resource for the life sciences and for worldwide conservation efforts. The growing Genome 10K Community of Scientists (G10KCOS), made up of leading scientists representing major zoos, museums, research centers, and universities around the world, is dedicated to coordinating efforts in tissue specimen collection that will lay the groundwork for a large-scale sequencing and analysis project. The project will capture biodiversity available from the world's vertebrate species such that the resulting sample collection is as comprehensive as possible, well-documented, available for general research use, and suitable for accurate whole-genome sequencing with current and anticipated high-throughput DNA sequencing technologies (Journal of Heredity, November 2009).

The successful candidate will cooperatively work with the comparative genomics research group at UCSC and the G10KCOS to:

- Develop and test computational methods for the robust assembly of DNA sequencing data from multiple sequencing platforms into an accurate long-range assembly of the genome of a novel species.
- Invent, implement and test new and more efficient algorithms to organize and compare the genomes of thousands of vertebrate species.
- Be the first to explore the molecular evolution of the vertebrate genome on a truly large scale, discovering the fixed genetic changes on each of the separate vertebrate lineages, and working with scientists internationally to link these changes to the evolution of novel phenotypic traits.

**RANK:** Postdoctoral Scholar—Employee

**SALARY RANGE:** From $45,000 to $50,628; commensurate with qualifications and experience

**MINIMUM QUALIFICATIONS:** A Ph.D. in bioinformatics, computer science, population genetics or related quantitative discipline is required along with relevant bioinformatics experience and demonstrated record of accomplishment. Some previous experience with large-scale DNA data analysis and high-throughput DNA sequencing is necessary. Other requirements include excellent verbal communication and collaboration skills.

**PREFERRED QUALIFICATIONS:** The ideal candidate will have some experience in experimental molecular biology or evolutionary biology.

**POSITION AVAILABLE:** As soon as possible.

**TERM OF APPOINTMENT:** One year, with possible extension, contingent upon funding and a positive performance review.

**TO APPLY:** Applicants should submit a letter of application, curriculum vitae, research statement, and contact information for three references. Please apply online at http://genome10k.org/postdocposition to Search Committee—Genome 10K Postdoc. ***Electronic submission is preferred.***

*Alternative mailing addresses:*
Search Committee, Genome 10K Postdoc
cbsehr@soe.ucsc.edu or
University of California
1156 High Street, Mail Stop: CBSE-ITI
Santa Cruz, CA 95064

**Please refer to position #PS-G10K in your reply.**

**CLOSING DATE:** Position is open until filled.

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