

# Postdoc Openings in Genomics/Bioinformatics at ASU

The Cartwright Lab (<http://cartwrig.ht/lab>) at Arizona State University in Tempe, AZ is seeking multiple Postdoctoral Research Associates in the areas of Evolutionary Genomics, Statistics, and Bioinformatics to develop methodologies and study evolutionary questions related to mutation and short-read sequencing. Successful applicants will join a rapidly growing and well-funded lab involved on a variety of active research projects and collaborations. Current projects include

1. the analysis of ciliate mutation accumulation lines,
2. the development of software for de-novo mutation detection from traditional and single-cell sequencing datasets,
3. the analysis of non-pathogenic somatic mutation patterns in mammals and plants,
4. the study of indel patterns across the tree of life,
5. characterizing mutations and fitness-landscapes of metabolically engineered microbes,
6. population genetics of malaria parasites,
7. the construction of phylogenies from short-read, whole genome datasets, and
8. simulation techniques for molecular evolution research.

The Cartwright Lab is part of the Center for Evolutionary Medicine and Informatics (CEMI), one of 10 research centers in Arizona State University's Biodesign Institute. Research in the Cartwright Lab covers many different questions in population genetics and molecular evolution, at the interface of biology, statistics, and computer science. A majority of our research involves developing, implementing, and applying novel methodologies to study genomic datasets. Members have the opportunity to develop both dry-lab and wet-lab research programs through interactions with both national and international collaborations.

As part of this project, the Postdoctoral Research Associates are expected to be able to:

1. Assemble microbial or metazoan genomes from short-read sequences and identify variable sites and regions.
2. Develop novel, high-throughput methodologies to study mutations from next generation sequencing of related individuals and cells.
3. Work closely with collaborators to customize methodologies to specific experimental designs.

## Required Qualifications:

Ph.D. in genomics, bioinformatics, or a related field

## Desired Qualifications:

1. Experience working with genomes and evolutionary analyses
2. Knowledge of programming languages including R, Python, and C++
3. Knowledge of statistical methodologies
4. Experience with short-read sequencing

## Application must contain:

1. Resume
2. Cover Letter
3. Names, addresses, and phone numbers of three professional references

**Deadline for applications is May 1, 2014. Applications will continue to be accepted and considered until the job is filled/closed.**

For more information see <http://cartwrig.ht/lab/> or <http://labs.biodesign.asu.edu/cartwright/>.

**To apply, forward one document that includes a cover letter, detailed CV, and names of 3 references to [cartwright@asu.edu](mailto:cartwright@asu.edu).** Please put the job title in the subject line of the letter.

Arizona State University is an Equal Opportunity/Affirmative Action employer. A background check is required for employment.