Post-doc position in Human Genomics and Bioinformatics Lab, School of Life Sciences

Introduction of The Lab/ Research Field

Mosaicism happens because a mutation arises at some point after the zygote is created. Mosaic mutations arising early during development generally are present in relatively high proportion of cells, affecting high proportion of tissues and are likely to be transmitted to the next generation. Mosaic mutations are common in normal human genomes and have been reported to be implicated in a variety of disorders, but the prevalence and influence of early-developmental mosaics in most human diseases, including cancers, is still largely unknown. In addition, the relationship between different developmental-stage mutation profiles, as well as the impact of embryonic mutations on varied diseases are largely unexplored. Moreover, current methods are restricted to detecting rare mosaic mutations partly due to technical difficulties, and the invaluable information imbedded in common mosaic variants is highly neglected.

Our goal is to explore and understand the origin and impact of somatic mutations in human genomes. We will devote our effects to draw a comprehensive view of mosaic variants in human genomes by developing new bioinformatics methods identifying both rare and common mosaic variants. We will then expand our focus to decipher the mutation mechanisms, mutation consequences and elucidate the relationship between early developmental mosaic mutations and diseases developed later in life. We would also make use of neutral mosaic mutations to study embryonic developmental processes in disease individuals.

Our lab is primarily a bioinformatic group that uses and develops a wide range of genomic, bioinformatic, and statistical methods, but when desired, we would also do wet-lab experiments. We would work closely with hospitals to carry out a series of studies on (but not limited to) mosaic mutations. We aim at building a team of supportive and productive computational biologists. Successful candidates will have the chance to work on the grand challenges of human genomics, somatic mutations, human development and precision medicine. We are always looking for new group members with passion, talent, and grit!

Lab website: https://yanmeidoulab.github.io/

Job Description

Position: Postdoctoral Fellow (2-3)

Requirements:

1) An ideal candidate will have a Ph.D. degree in computational biology/bioinformatics/computer science/statistics or another quantitative field, as well as excellent programming and communication skills. Substantial experience in analysis of high-throughput sequencing data is highly desirable. Candidates who have

obtained a Ph. D. degree in biology with substantial experience and interest in quantitative fields/programming are also welcomed to apply.

2) We are particularly interested in hiring at least one fellow with a rigorous statistics/computational background. Those with an outstanding record in a quantitative field without significant exposure to biology may also be considered.
3) Candidates should have excellent communication skills and be able to work in a highly collaborative research environment.
4) Proficient in English writing, reading and speaking.

Other requirements:

Have obtained or about to obtain a Ph.D. or equivalent degree, aged under 35.

Compensation and Benefits

The research team offers a competitive compensation package commensurate with the selected candidate's qualifications and experience. Applications for relevant projects and programs will be encouraged and supported.

For post-doc(s) who selected for China Postdoctoral Science Foundation or Advanced Programs of Zhejiang Province will be entitled to receive the same amount funds from the Hangzhou government.

For post-doc(s) who full-time work in Hangzhou after completing their post-doc research will be eligible for applying allowance of 400,000RMB from the Hangzhou government.

How to Apply

To apply, please send the following documents in English (in PDF format) to douyanmei@westlake.edu.cn, and indicate "Application Postdoc (Your name)" in the email subject.

1) A cover letter (briefly state your research experiences and why are you interested in our lab);
2) A detailed CV (include a complete publication list);
3) Doctoral Degree Certificate;
4) Any other documents that describe your academic ability or achievements;
5) Please arrange 2-3 reference letters to be sent to douyanmei@westlake.edu.cn directly. A reference letter from the candidate's Ph.D. advisor is required; however, for any special reasons your advisor could not provide a reference letter, please state the reason in the cover letter and arrange an alternative reference letter.