



Postdoctoral Fellow - Ocular Stem Cell Function

Description

The Wu lab at the Stanford School of Medicine, Department of Ophthalmology and Stanford Stem Cell Institute has a Postdoctoral Fellow position available to study the molecular mechanism of adult stem cell activation and differentiation by specialized niche cell in the cornea and other ocular tissues.

Research: Our group aims to understand how stem cells replenish and maintain the ocular surface and retina of the eye, lacrimal system, and orbit. We are interested in understanding the formation and function of stem cell niches. We utilize genetic mouse models for ocular development and regeneration to uncover how specialized niche cells influence resident stem cells. Projects will utilize recently developed CRISPR-mediated technologies to manipulate gene expression *in vivo*. Experiments will involve cutting-edge cell and molecular biology techniques including tissue culture, *in vitro* differentiation of iPSCs, genetic mouse models, CRISPR-mediated gene-editing, RNASeq/single cell transcriptome analysis, chromatin immunoprecipitation, FACS sorting, immunofluorescence and *in vivo* cornea regeneration assays.

Institute: Stanford School of Medicine is home to an array of leading research institutes, centers and facilities, and offers interested candidates a highly collaborative and innovative scientific environment that fosters strong interactions between basic and translational researchers. The Stanford Stem Cell Biology and Regenerative Medicine Institute integrates researchers from multiple specialties and disciplines and is the center of stem cell research on campus.

Qualifications: The position is for a highly motivated PhD, MD, or MD/PhD who aims to develop an independent research career.

- A strong background in developmental and stem cell biology is required. Experience in genetic engineering, flow cytometry, confocal microscopy, RNAseq/ChIPseq, advanced molecular biology, genomic data analysis, and mammalian cell culture are highly desirable.
- Ability to work independently, show self-initiative and attention to detail, and motivation to explore new techniques and concepts are essential.
- Team spirit, strong communicational skills, and adherence to highest ethical principles when working with laboratory animals are necessary to be considered.
- Candidates can expect individualized mentorship tailored to their personal career and publications goals as well as a positive and success-oriented work environment. The successful candidate will engage in vibrant scientific discourse with the Stanford stem cell community. Regular meetings with the PI will assure mutual expectations are met and that the ultimate goal of skill and resume-building toward an independent position as a faculty or research scientist is achieved.

Apply: Interested applicants should email an updated CV, complete contact information for 3 references, cover letter describing published and ongoing work, and a statement of future research interest (1-2 pages) to Albert Wu (awu1@stanford.edu).

Employer

Stanford University School of Medicine

Location

Palo Alto, California, USA