

~Mechanisms of Cell-state transition and Cell-cell communication in plants

Keiko Torii Lab; Howard Hughes Medical Institute and University of Texas at Austin

<u>Multiple postdoctoral positions</u> are available starting October 2019 (or negotiable) to study the forefront of plant cell & developmental biology using cross-disciplinary approaches. The project will be in collaboration with international teams of synthetic chemists, genomics and proteomics experts, and structural biologists. The successful candidates will be actively participating in one of the following projects:

1: Deciphering receptor-kinase phosphocodes and early signaling events during stomatal patterning and differentiation using protein biochemistry/proteomics, developmental-genetics, high/super-resolution imaging and synthetic chemistry approaches

2: Understanding the genomics/epigenomics basis of de novo, transient stem cell maintenance and differentiation within the plant epidermis

3: Unraveling the intersection of environmental signaling to core stomatal development pathway at the level of genomics & cell signaling and its implications to plant adaptation

4: Investigating cell-type specific plant hormone response using our newly developed artificial, orthogonal auxin signaling system

Solid backgrounds in basic molecular biology/biochemistry/cell biology and a demonstrated record of scientific productivity (e.g. a first-authored research manuscript) are required. In addition, strong background in proteomics/mass-spec analysis and/or high/super-resolution microscopy (for Project 1), genomics/bioinformatics/sc biology (for Project 2), and proteomics/mass-spec and structural biology (for Project 3) are highly desired. Previous experience in growing and maintaining Arabidopsis/other crop plants is not a prerequisite. However, all Torii lab members are expected to grow their own plants for his/her own experiments and meticulously maintain transgenic/mutant lines, perform genetic analysis. A candidate must have strong communication and analytical skills, must be self-motivated and success-driven, and be able to work as a team as well as independently.

Salary is commensurate with qualifications and experience, and based on the HHMI scale. The positions will be initially available for one year, with yearly renewal, up to five years, based on the successful annual performance reviews and funding availability. The successful candidates are encouraged to apply for independent fellowships to gain independent programs for his/her future career path. A preference will be given to candidates within two years of postdoctoral experience.

Send a CV and a cover letter (1-2 pages) outlining your research program and career goals. <u>Indicate the specific project you would like to pursue from the above and propose specific experiments, expected outcome, and timeline.</u> Also, please provide the names and contacts of three-four referees to:

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HHMI and University of Texas are Equal Opportunity Employer and encourage applications from diverse backgrounds.

