**Postdoctoral Positions**

Postdoctoral positions are available in the laboratory of Mark Estelle at the University of California San Diego to work on one of the following projects:

1) **Mechanism of auxin perception**. The plant hormone auxin is perceived by a receptor consisting of an F-box protein of the TIR1/AFB family and an Aux/IAA protein. Recent results indicate that different pairs of F-box proteins and Aux/IAA proteins (co-receptor pairs) have distinct affinities for auxin. Future investigations will focus on the basis for these differences and their role in various auxin regulated processes.

2) **Chemical screens for auxin agonists and antagonists.** Many auxin agonists have been identified using bioassays. To identify new molecules that interact with the auxin receptor(s), we will perform large-scale chemical screens using a yeast two-hybrid based assay. This assay will also be used to identify novel plant compounds that regulate auxin signaling.

**3) Natural variation of hypocotyl elongation:** Genome-wide association (GWA) mapping is emerging as a powerful tool for the study of natural variation in Arabidopsis. In this project we will use the resources developed by the 1001 genomes project (www.1001genomes.org) and a GWA approach to identify novel genes that contribute to hypocotyl growth. The phenotype of 200 accessions will be determined with respect to auxin, GA and temperature-dependent hypocotyl elongation. Genes associated with growth variation will be mapped by GWA mapping.

Salary is commensurate with qualifications and experience (based on the NIH scale). The position will be initially available for one year, with renewal based on the performance and. Successful candidates will be encouraged to apply for independent fellowships. Preference will be given to candidates within two or fewer years of postdoctoral experience.

Candidates should submit a letter indicating their interest in one of these positions and detailing experience and past research success. Please include a copy of your curriculum vitae and the names and email addresses of three referees. Send all information via email to: mestelle@ucsd.edu