

# Interested in Molecular Biology, Genomics, Biotechnology?

...Consider this opportunity...

## Ten-Week Undergraduate Internships in Plant Genomics

Available between May 24 and September 17, 2010

*Investigate a career and obtain first-hand experience in an active plant genomics laboratory. You will gain experience in the exciting fields of biotechnology and bioinformatics and an orientation to wheat, one of the world's most important food crop plants.*

### Description

The internships offer opportunities for undergraduates to join a plant genomics research laboratory for hands-on participation in wheat genomics research for a ten-week period. Each host laboratory (see list at right) is currently involved in a collaborative project to develop a physical map of one of the wheat genomes. The project involves screening of bacterial artificial chromosome (BAC) libraries, BAC fingerprinting, high-throughput genetic mapping, and Sanger and next-gen DNA sequencing.

Interns will gain appreciation for applications of genomics to solve problems in agriculture, particularly with food crops and will be instructed in and use a rich variety of laboratory and computer applications in molecular biology, genomics, and bioinformatics. Each intern will have close mentorship with a research scientist in the host laboratory, be an integral part of the wheat genome physical map development project, and be expected to produce a short written report at the end of the internship detailing his or her experiences.

### Financial arrangements

Each intern will receive a stipend of **\$3,000** for the internship. The stipend will be made available in two equal payments, one after three weeks of the internship have been satisfactorily completed and the other on successful completion of the full internship.

A payment of **\$1,000** per person will be made at the outset to contribute to subsistence costs during the internship.

If travel from home location to host laboratory location is necessary, up to **\$1,500** per person is available to reimburse actual travel costs incurred at the start and finish of the internship.

### How to apply

Applications should consist of:

1. 250 words or less about your interests in plant molecular genetics, including any laboratory experience you have had;
2. A list of courses (and grades received) you have taken in biology, chemistry, genetics, and agricultural sciences, such as plant breeding;
3. An indication of your preferred host laboratory (see list at top right);
4. Limitations you have for the dates of the ten-week period within the May 24 to September 17 timeframe; and
5. Personal contact information: email address, telephone and fax numbers, and home and school addresses.

| *Applicants must be prepared to provide documentation of citizenship or permanent residency status.* |

### Host laboratories

#### Dr. Olin Anderson

Genomics and Gene Discovery Unit  
US Dept. of Agriculture  
Western Regional Research Center  
Albany, CA

#### Dr. Jan Dvořák

Dept. of Plant Sciences  
University of California, Davis

#### Dr. Bikram Gill

Dept. of Plant Pathology  
Kansas State University, Manhattan

#### Dr. Mingcheng Luo

Dept. of Plant Sciences  
University of California, Davis

### Eligibility

Students must be USA citizens or permanent residents, have undergraduate, sophomore standing in an accredited USA college or university as of Fall 2010, and have completed courses in biology and genetics. Students must not be receiving compensation, either directly or indirectly, from other Federal government sources while participating in the internship.

Applications are encouraged from students in social groups traditionally under-represented in science.

### Timeline

Applications are due by **May 7, 2010**.

Notices of awards will be made by **May 17**.

Submit application by email to:

**Patrick McGuire** <pemcguire@ucdavis.edu>

Dept. of Plant Sciences  
University of California, Davis CA

### Sponsor

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<http://wheat.ucdavis.edu/wheatD/>