JAMES RENNIE BEQUEST

REPORT ON EXPEDITION/PROJECT/CONFERENCE

Expedition/Project/Conference Title: **43rd Annual *Drosophila* Research Conference**

Travel Dates: **April 10-14, 2002**

Location: **San Diego, California, USA**

Group Member(s): **Shengyin Lin**

OUTCOME (not less than 300 words):-

The 43rd annual *Drosophila* Research Conference was organised by Genetics Society of America. It is the largest *Drosophila* meeting in the world. Several thousand biologists attended this meeting. The five-day conference included three plenary sessions, five concurrent platform sessions, three concurrent workshops and three exclusive workshops. There were 144 platform presentations and 855 poster presentations concerning recent research development and technique progress in the past year.

The Chair of the conference, Kenneth C. Burtis gave a welcome and opening remarks. Then Susan Celniker introduced the keynote address on the *Drosophila* Genome Project. The new aim of BDGP (Berkeley *Drosophila* Genome Project) is that the sequence will be re-annotated, and that the expression pattern of each gene will be analysed by *in situ* hybridisation. The new version of the annotation will be released in the August this year. It will give us more information about the genome.

The first topic focused on *Drosophila* in the 21st century. It talked about the current and future role of *Drosophila* as a model system for the study of human disease and normal biological processes. Since the work of sequencing genome of *Drosophila* and human are all have been finished, we can use *Drosophila* as a vehicle for discovery relate to human medical genetics. In the future more and more *Drosophila* gene study will be associated with human disease. For example, our lab showed that *myosin VI* was expressed in *Drosophila* ovary several years ago and more recently in the mouse ovary. In this conference Denise Montell's lab showed *myosin VI* also expressed in human ovary and it may be associated with human disease.

Stem cell biology was another hot topic at the conference. Many labs are interested in it. Dr. M.T. Fuller's lab described work on the identification of factors required for stem cells in the *Drosophila* testis. Dr.H.Lin's lab revealed that *nanos* is continuously required for pre-oogenic germline development and for germline stem cell maintenance during oogenesis. The work of Dr.A. Spradling's lab showed that nutrition regulates the stem cells and their progeny in the fly ovary.

The rest of sessions such as signal transduction, pattern formation and RNA processing, etc also presented exciting new developments. All the information in the conference will help us understand more about *Drosophila* and promote our current research.

I got my personal benefit from my poster presentation. I think some of feedback will be useful for my work. One person advised me to combine GFP technology with my original sense and antisense strategy, which might give me better intepretation of the outcome. Another person discussed with me about using RNA *in situ* hybridisation to two mutant fly lines since there are two gene mutants in a deficiency region which cover the gene *Z14/Dmbves*, I am working on, RNA *in situ* technique might help to tell which mutant is *Z14/Dmbves*. I will consider their opinions for carrying out my future work. Finally I would like to give many thanks to James Rennie Bequest for the financial aid without which I can not attend this excellent conference.