

JAMES RENNIE BEQUEST

REPORT ON EXPEDITION/PROJECT/CONFERENCE

Expedition/Project/

Conference Title: Annual SEB Salzburg conference 2012

Travel Dates: 29th June – 2nd July 2012

Location: Salzburg, Austria

Group member(s): Rumana Keyani(s0974584)

Aims:

- (1) Present my research findings at a large international meeting
- (2) Attend oral presentations on induced resistance against biotic attack
- (3) Meet fellow researchers for future collaboration

OUTCOME (not less than 300 words):-

I attended the Annual SEB Salzburg conference 2012. I considered it to be the best choice for my first international conference as it seemed like an ideal source to obtain invaluable insight on the advances made on the scientific, technological, environmental, economic and commercial aspects of plant disease resistance, which is my area of study, and also to obtain an overview of the progress made during the last years on related areas. Annual SEB Salzburg conference 2012 was one of the largest scientific conferences taking place every year at different venues of the world. This year, it was held at Salzburg, Austria. This conference had four main sessions including Animal biology, Cell biology, Plant biology and Education sessions. Each session had its sub-sessions. I was particularly interested in **Induced Resistance against Biotic Attack**, one of the plant sessions.

There were very useful presentations in my session by keynote invited speakers on different topics of resistance. A couple of very interesting oral contributions prompted me to approach leaders in the field and discuss our work, managing to obtain information of earlier publications/reviews on plant disease resistance.

Although it is noteworthy to be selected for an oral presentation, considering gathering the advantage of gaining lots of feedbacks and ideas from a wide audience, a poster presentation may be preferable. I presented my poster entitled **Novel members of the Thioredoxin superfamily regulate plant immune responses**, in 1st poster session on 30th of June, which was well received. It was about our findings that mutant *trx-n1* and *trx-n2* plants display enhanced resistance and disease susceptibility, respectively. Resistance in *trx-n1* plants is associated with enhanced expression of genes involved in synthesis of salicylic acid. I also found that unlike classical TRX, TRX-n proteins contain multiple active sites, suggesting they may exhibit significant reductase or remodelling activities. Indeed, insulin turbidity assays indicated that TRX-n proteins show an unusual form of disulphide reduction activity. My findings therefore indicate that TRX-n1 and TRX-n2 are novel, functional members of the TRX superfamily and play important roles in establishing plant immunity. I got very good response from a number of researchers. I exchanged different ideas regarding my work with my international fellows.

JAMES RENNIE BEQUEST

In conclusion, the conference was worthwhile and in this instance I was able to achieve my objectives as I gained an overview of different aspects of plant disease resistance, and also had useful discussion with key researchers in the area, making a few useful contacts along the way. Since this was my first international conference I also know what to expect from my next one, especially if I am to make an oral contribution.

Finally I would like to take this opportunity to thank **the James Rennie Bequest** for their financial contribution, which made it possible for me to benefit from such experience.