

JAMES RENNIE BEQUEST

REPORT ON CONFERENCE

Conference Title: Coevolutionary arms race between parasite virulence and host immune defence: challenges from state of the art research

Travel Dates: 03/09/2011-07/09/2011

Roscoff, France

Location:

Ricardo Ramiro

Group member:

Aims:

1) Present a poster of my PhD work entitled: "Resource use and Species Interactions in *Plasmodium* Infections"

2) Attend the talks by other scientists, the great majority of which were leading experts in the field

3) Network and have scientific discussions with the scientists at the meeting

OUTCOME:

The conference, entitled "Coevolutionary arms race between parasite virulence and host immune defence: challenges from state of the art research", was the second of a series of the prestigious "Jacques Monod conferences", with a focus on host-parasite interactions. These conferences aim to bring together leading experts on a given field, with a few PhD students and post-docs. As this is a fairly focused and small meeting (~100 people), with all the attendants being required to be present for the all duration of the meeting, there is plenty of opportunity to meet everyone.

The meeting followed a format, in which leading experts would give most of the talks, with its main aim being to provide an environment where theoretical and experimental biologists, from immunology and evolutionary ecology backgrounds, could interact. I believe the aim were achieved, as talks covered the spectrum from the immune dynamics against malaria parasites, to maternal immunity in wild birds.

Throughout the meeting there were a series of talks that I found quite interesting. As examples: Ana Rivero (Montpellier, France) talked about the evolution of insecticide resistance in a vector of bird malaria, and the occurrence of very defined clines along which the mutations conferring resistance to the parasites are present or absent; Also in birds, Scott Edwards (Harvard, USA), discussed the use of genomic tools to understand the spread of natural epidemics of bacteria. Of specific interest to me, were the talks of Andrea Graham (Princeton, USA) and Margaret Mackinnon (KEMRI, Kenya). I was particularly interested in the work of Margaret Mackinnon, who is studying how natural selection has shaped the evolution of *Plasmodium falciparum* in the wild, which gave me some interesting ideas for further work.

The poster sessions were small and enjoyable. I had a good mix of people wanting to see my poster, and had a very good chat with Margeret Mackinnon, who made me look at my own work from another perspective. In general, people thought my work was interesting and were keen to know how it will proceed.

Socially, the meeting was also great. This was organized in a way that the participants of the meeting would always have lunch together and dinner would normally be free, but I always

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ended up with groups of scientists from several countries. Additionally, one of the afternoons was used for a trip to the isle of Batz and for the last dinner, we had a banquet with the traditional, and delicious, seafood from that area of France. The social time provided for a series of interesting chats with people that I wanted to meet as: Yannis Michalakis, Jim Kaufman or Scott Edwards. It was also an excellent opportunity to meet PhD students, post-docs and check the progress and the hopes of people I had met at other conferences.

Overall, this was a great meeting, that gave me the opportunity for very interesting conversations with a series of people I would have not otherwise met. Given all of this, I am very thankful to James Rennie Bequest for having provided me with the funds that allowed my presence at this meeting.