

JAMES RENNIE BEQUEST

REPORT ON EXPEDITION/PROJECT/CONFERENCE

**Expedition/Project/
Conference Title:**

Structural Aspects of Synthetic Biology Systems

Travel Dates:

02/08/16 – 05/08/16

Location:

Minnesota, US

Group member(s):

Laura Tuck

Aims:

Present talk and poster at international conference

Set up international collaboration

OUTCOME (not less than 300 words):-

The two main aims of this trip were to present a talk and poster on my research to date, at the Structural Aspects of Synthetic Biology Systems conference at the University of Minnesota in St. Paul, and to set up an international collaboration with the Schmidt-Dannert lab, a world leading group studying Bacterial Microcompartments (BMCs).

The conference itself was organised by Dr. Maureen Quin, who was very interested to hear about our lab's work on the structure and biochemistry of a bacterial microcompartment aldehyde dehydrogenase enzyme, as well as more recent work looking at building synthetic microcompartments for use in protein scaffolding systems. Other talks were given by the Schmidt-Dannert lab, Dr Mike Freeman, Professor Carrie Wilmot and Dr Kate Adamala, whose research strongly aligns with our laboratory, so I got great, thought-provoking questions on where I could take my research and tips for future experiments. After the conference, we were given a tour of the labs and facilities available at the University of Minnesota, which again led to great discussions on the best equipment/experiments to do to get the best possible data, both for my thesis and papers that will come from this work.

On the basis of this trip, our lab has now set up a collaboration with the Schmidt-Dannert lab. We will work with the ethanolamine microcompartment protein, EutM, to build a variety of constructs using our lab's MoClo toolkit system, to quickly and efficiently test for useful biological scaffolds.

As this was my first international conference as a guest speaker, I feel that the trip was a great learning opportunity to build on my presentation skills and particularly for networking. I tend to get quite nervous before presenting so the more experience the better! I hope to get a Postdoctoral position in the US after my PhD, and so was interested to see differences in working in a lab between Scotland and the US.

Overall, I had a great experience and would again like to thank the James Rennie Bequest for providing me with this opportunity.