

JAMES RENNIE BEQUEST

REPORT ON EXPEDITION/PROJECT/CONFERENCE

Expedition/Project/

Conference Title: Anaerobe 2012 Congress

Travel Dates: 27th June - 1st July 2012

Location: San Francisco

Group member(s): Maria Kowal

Aims:

- To present a poster detailing work on the proteome of the outer membrane vesicles of *Bacteroides fragilis*
 - To gain a wider insight into research being undertaken in areas similar to my own
 - To form new acquaintances and possible collaborations
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OUTCOME (not less than 300 words):-

The Blakely lab and the Le Bihan lab together produced a list of proteins believed to be present in the outer membrane vesicles (OMV) in *Bacteroides fragilis*, a gram negative commensal and facultative anaerobe which resides in the gastro-intestinal tract of humans. It is believed that the OMV may have some role in communication of this organism with the host and therefore the proteome of these vesicles will help determine which, if any, proteins are delivered to the host cells. OMV were isolated from cell culture and analysed using capillary high purity liquid chromatography coupled with LTQ-Orbitrap mass spectrometry. Proteins were identified using Progenesis LC-MS software (Non-linear Dynamics, UK). A poster, entitled "Proteomic Analysis of the Outer Membrane Vesicles Produced by *Bacteroides fragilis*" was produced detailing the aims, methods and results of the project, as well as outlook for future developments.

Anaerobe 2012 Congress was the 11th biennial conference hosted by The Anaerobe Society of the Americas, this year in San Francisco. The conference aimed to address both the clinical and microbiological aspect of anaerobes and was attended by researchers from 28 countries, presenting work on a wide range of organisms, most prominently *Clostridia* spp. and *Bacteroides* spp. I attended talks on *B. fragilis*, *C. difficile*, *C. botulinum*, gastro-intestinal microbiota, developments in probiotics and diagnostic and identification techniques, as well as various other topics.

The poster was shown for a 45 minute session at the conference, during which researchers from multiple groups and institutions expressed interest in the project and some collaborations were suggested on the basis of the proteins identified in the OMV. I also viewed posters presented by other PhD students and post-doctorates on *B. fragilis* commensalism and pathogenicity. I was introduced to prominent researchers in my field and discussed with my peers methods and improvements for both OMV and outer membrane isolation from *B. fragilis*.

Anaerobe 2012 is the first conference I have attended since beginning my PhD and I consider it an extremely beneficial experience. I am now more aware of the nature of the research being carried out in areas similar to my own and I have formed several new acquaintances in my field as well as one possible collaboration. In addition, my poster was

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well received by my peers and I believe I can improve further on my presentation skills after this experience. I would like to thank the James Rennie Bequest committee for assisting with my attendance and hope to also attend Anaerobe 2014 in Chicago with an oral presentation of my thesis topic.