

ASCEPT International Travel Award Report

I would firstly like to take this opportunity to thank the Australasian Society of Clinical and Experimental Pharmacologists and Toxicologists (ASCEPT) for providing me with an International Travel Award. Their financial support has allowed me to attend the Experimental Biology 2009 conference in New Orleans, Louisiana USA and to visit Professor Caroline Genco and her laboratory at the University of Boston, Boston, Massachusetts, USA.

The Experimental Biology conference, held between the 18th-22nd of April, is a broad meeting that encompasses a number of societies of various disciplines such as Pharmacology, Anatomy and Physiology. It was exciting to participate in such a large conference that consistently attracts well renowned scientists. In particular, a number of seminar presentations were presented by highly regarded experts from the cardiovascular field. Some of the sessions I attended covered various aspects of cardiovascular disease including the role of immune cells and inflammation in atherosclerosis and modulation of endothelial function by NADPH oxidase.

One presentation I found particularly interesting was by Professor Linda Curtiss titled 'Toll-like receptors in atherosclerosis.' Professor Curtiss presented a study which utilised bone marrow transplantation in Toll-like receptor 2 (TLR2) deficient mice to determine if the pro-atherogenic effects mediated by TLR2 were derived from immune cells or vascular cells. Interestingly, her findings demonstrate that the cell type involved is dependent on the source of the TLR2 agonist. TLR2 responses to exogenous agonists were shown to be mediated by immune cells while endogenous TLR2 agonists (e.g. oxidised LDL) induced pro-atherogenic responses that were derived from vascular cells.

In addition to the scientific sessions, the conference also held career development workshops that gave advice covering both the academic or industry pathways. One memorable seminar was 'Fundamentals for managing the postdoctoral experience' by the entertaining Howard G Adams, a well known author and motivational keynote speaker.

On the last day of the conference, I presented my poster titled '*C.pneumoniae* activates NADPH oxidase in vascular smooth muscle cells' and I was pleased it gained some interest during the poster session.

On the 30th of April I went to the University of Boston where I visited the laboratory of Professor Genco, an expert in the field of bacteria and atherosclerosis. Professor Genco's group have successfully shown that the periodontal bacterium *P.gingivalis* accelerates atherosclerosis and that TLR2 plays an important role in atherogenesis. It was a privilege to be given the opportunity to present some of my findings to her research group. My talk was well received and from this I was able to gain some invaluable feedback and ideas which I could utilise in my PhD studies. Dr Frank Gibson, a close collaborator of Professor Genco took the time to show and discuss his data concerning *H.pylori* infection and atherosclerosis which I found interesting and insightful as they were comparable to my own findings.

I would like to thank ASCEPT again for the International Travel Award. This trip was a rewarding experience and would not have been possible without their generous assistance. Thank you!