



Webster Centre for Infectious Diseases

Newsletter: Issue 2, December 2008

University of Otago, Dunedin, NZ

A Message from the Director:



Professor Kurt Krause
Webster Centre Director

Hello and welcome to the December edition of the Webster Centre for Infectious Diseases newsletter. December has been an busy month for the Webster Centre for Infectious Diseases. We awarded our first two post-graduate travel scholarships, and our summer students began their research. On 12 December, the Steering Committee met in Dunedin. Planning for the Second New Zealand wide Webster Centre in April 2009 is well underway with dates and venues almost sorted. More information will be sent when available to the group email list. We are hoping to have some exciting prospective keynote speakers. Rebecca Psutka, Webster Centre Coordinator reports that the website she is developing is due to be launched in January 2009.

Hope you have a Merry Christmas, see you again in January.

Webster Centre Postgraduate Travel Recipients Announced



Mark Robinson
PhD Candidate
Dept of Microbiology
University of Otago

The Webster Centre for Infectious Diseases was very pleased to announce that PhD students Mark Robinson and Sui Mae Lee are recipients of the 2009 Webster Centre Postgraduate Travel Scholarships.

Mark Robinson, who was born and raised in Whangarei, New Zealand is a PhD student working under the supervision of Professor Frank Griffin, Head of Department, Microbiology and Immunology. Mark's PhD project has allowed him to expand the understanding of inflammatory bowel disease and the role exaggerated immune responses may play in the disease. "Throughout his PhD programme, Mark has developed a new molecular platform which monitors immune markers necessary to explore and elucidate immune reactivity following *M. paratuberculosis* infection in deer", explains his Professor Griffin.

Faculty at Otago have high hopes for Mark and believe he will become an outstanding immunologist. The Webster Centre for Infectious Diseases is pleased to be able to offer him support to attend the 10th International Colloquium on Paratuberculosis in Minneapolis,

Minnesota, USA. Depending on other funding, Mark may present his research at the 14th International Congress of Mucosal Immunology in Boston, Massachusetts, USA.

Sui Mae Lee is a PhD student who is studying under the supervision of Associate Professor Greg Cook. Her PhD project has focused on MRSA where she studied the effect of antibiotic resistance by acquisition of the SCC_{mec} element on bacterial fitness. She is also studying a vancomycin-resistant *Enterococcus faecalis* strain found in New Zealand poultry and humans. Mae's supervisor, Associate Professor Greg Cook describes her work with MRSA as "novel, because no previous researchers have assessed the cost of antibiotic resistance using continuous culture at defined growth rates". Prof. Cook is optimistic that Mae's work on vancomycin-resistant *Enterococcus faecalis* and its adaptation to different environments during transmission from host-to-host will also be exciting. "Mae has identified a number of proteins that are important in this process and we are currently determining the precise role they play", explains Associate Professor Cook. Mae will be presenting a poster at the Society for General Microbiology Spring 2009 Meeting in Harrogate, UK.



Mae Lee
PhD Candidate
Dept of Microbiology
University of Otago

Webster Centre Featured Researcher: Professor Warren Tate



Professor Warren Tate
Department of Biochemistry

Associate Dean of Research
Division of Health Sciences

Webster Centre Coordinator, Rebecca Psutka sat down for a Q and A session with Biochemistry Professor and Former HoD Warren Tate. Professor Tate is also the Associate Dean of Research, Division of Health Sciences.

Professor Tate is internationally known for his co-discovery of translational frameshifting as a new mechanism of gene regulation (PNAS, 1985) and for his description of the translational stop as not what is just in the genetic code - a sequence element, not just a codon. He has published in prestigious journals including PNAS, Nature, and Cell.

Q. How did you decide to focus on infectious disease research?

A. The result of a chance discovery which was of a genetic recording mechanism, translational frameshifting, in the 1980s led me to realise that because HIV virus uses this mechanism I must change directions. I began my career as a biodiscovery researcher studying fundamental mechanisms of molecular biology and more recently I have looked to apply these discoveries to real problems, particularly those relating to infectious diseases

Q. To you, what is the most exciting aspect of scientific research - what gives you that "buzz"?

A. Any scientific discovery is exciting and I can get real fulfillment from following up the initial discovery, from turning over stones to understand what it all means. Also, working with young people of enormous potential as post-grad students - it's extremely rewarding to see them develop careers in science.

Q. As a former HoD and current Associate Dean of Research, Health Sciences, you have extensive experience with the administrative side of academia. How did you manage to be both a researcher and an administrator?

A. It is very difficult to take on an important administrative role and maintain a competitive, active research program. Preliminary to taking such a role I established a hierarchy of people in my laboratory to ensure sustainability. When in the administrative role time has to be allocated for paper-writing and/or new grant writing to avoid a dramatic fall-off in research.

Q. But time is a finite resource...

A. Before starting as HoD the tank was full, and it ran down during that time and my research began to feel the cost towards the end of my time as HoD. I have just tried to do whatever I'm doing the best I can now - without worrying too much about the future - that is how I've built my career.

General Announcements and Upcoming Meetings



Rebecca Psutka
Coordinator,
Webster Centre for
Infectious Diseases

Please email the Webster Centre Coordinator,
rebecca.psutka@otago.ac.nz:

- if there is a **scientific meeting** you would like highlighted
- if you are not on the Webster Centre **email list**
- if your research relates to infectious diseases and would like to **join** the Webster Centre for Infectious Diseases
- if you otherwise have any questions, comments or concerns regarding this newsletter or any other Webster Centre related activities.

Upcoming Meetings

ASID- Australian Society for Infectious Diseases meeting

Wed 25 March - Sat 28 March

Cypress Lakes Resort
Hunter Valley
New South Wales, Australia
<http://www.asid.net.au/>

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