



THE UNIVERSITY OF
**WESTERN
AUSTRALIA**

School of Human Sciences

The Head of School, Professor Shane Maloney,
invites you to attend the

2017 SECOND SEMESTER, SHS SEMINAR SERIES

Time: Tuesday 5 September, 2017 @ 1pm

Venue: Room 1.81, Anatomy, Physiology & Human Biology Building North
The University of Western Australia (off Hackett Entrance No. 2)

Presenter: **Dr Silvana Gaudieri**
School of Human Sciences
The University of Western Australia

Research Associate Professor, Vanderbilt University, Nashville, TN
Adjunct Associate Professor, Institute for Immunology and Infectious Disease, Murdoch
University

Title: **Viral adaptation to host immune responses: a story about evolution, frequent
flyer points and country music**

More than 35 million people worldwide are infected with HIV including >22,000 Australians. Anti-HIV therapy can reduce mortality associated with infection but treatment does not provide a cure, is life-long and remains a substantial financial burden in Australia and worldwide. Harnessing immunological clearance as an alternative to 'drugs for life' could reduce this health and economic burden, as well as advance the global research efforts for HIV eradication. The main impediment to cure is the enormous diversity of HIV. A significant proportion of this variation is due to mutations in the HIV genome that allow the virus to escape from our immune response (viral adaptation). HIV adaptation to the host's immune responses causes failure of otherwise potent natural and vaccine-induced immunity. The mechanisms of viral adaptation to T cell responses **are fundamental concepts for host-pathogen interaction**. Understanding these mechanisms will be critical to aid rational design of vaccine candidates for either preventative or therapeutic strategies for mutable pathogens such as HIV and others including Hepatitis C virus. In this seminar I will discuss updates from research projects undertaken in Perth and the US that demonstrate how we can utilise information gained from genomic and immunology studies aimed at the population and single-cell level to understand viral adaptation to these important human pathogens.



PARKING:

Coin operated visitor parking is available between Hackett Entrances 1 and 2. City of Subiaco controlled riverside parking is also available.

Enquiries:

Debbie Hull: Phone 6488 3313 Fax 6488 1051
Email: deborah.hull@uwa.edu.au
www.apfb.uwa.edu.au