

8th Annual Workshop

Adelaide Convention Centre, South Australia, 4th - 6th June 2012

Day One: Monday, 4th June 2012

Riverbank Foyer

10:00 – 11:00 **Registration and Morning Tea**

Riverbank Rooms 1 and 2

11:00 – 11:15 **Welcome**
Tony Cunningham (ACH²) and Peter White (ACHV)

11:15 – 12:00 **HCV Plenary**

Professor Heiner Wedemeyer
Hannover Medical School

Title: HCV Immunopathogenesis

Chair: Andrew Lloyd

12:00 – 13:00 **Joint Session 1**

Antiviral Mechanisms

Chair 1: Mark Douglas
Chair 2: David Harrich

12:00 – 12:15 **Tina Iemma** [25]
Inhibition of Clathrin and Dynamin-2 leads to a post-entry block in HIV infection

12:15 – 12:30 **Karla Helbig** [24]
Viperin interacts with viral proteins and host-cell factors to inhibit flavivirus viral replication

12:30 – 12:45 **Renee Duncan** [12]
The Magnitude of HIV-1 Resistance to Maraviroc is Dependent on the Efficiency of Use of the MVC-CCR5 Complex and Determines Changes in Viral Tropism

12:45 – 13:00	Scott Read PPAR α agonist WY14643 modulates interferon alpha sensitivity and may be an effective supplementary treatment for difficult to treat HCV patients	[46]
13:00 – 14:00	Riverbank Foyer Lunch	
14:00 – 15:30	Riverbank Room 1 Concurrent Session 2a HIV Pathogenesis Chair 1: Damian Purcell Chair 2: Clovis Palmer	
14:00 – 14:15	Joey Lai Langerin Oligomerization Enhances gp140-mediated Binding of HIV on Langerhans Cells	[28]
14:15 – 14:30	Najla Nasr HIV infection of Langerhan cells	[38]
14:30 – 14:45	Jacqueline Flynn Unmasking molecular mechanisms involved in HIV subtype C pathogenicity	[17]
14:45 – 15:00	Kieran Cashin Alternative coreceptor requirements for efficient CCR5- and CXCR4-mediated HIV-1 entry into macrophages	[8]
15:00 – 15:15	Lloyd Mirto Protein Arginine Methylation Regulates the Subcellular Localization of HIV Matrix and Integrase	[34]
15:15 – 15:23	Dee Rambukwelle (late breaker) Determining the mechanism by which HIV blocks interferon induction in Dendritic cells	[23]
15:23 – 15:31	Tom Wright (late breaker) Investigating the role of HIV driven IFIT proteins in macrophages	[57]

14:00 – 15:30

Riverbank Room 3

Concurrent Session 2b Hepatitis Virus Pathogenesis

Chair 1: Peter White

Chair 2: Nick Eyre

14:00 – 14:15

Jane Allen

Does HCV infection alter cellular iron status?

[2]

14:15 – 14:30

Benny Baharuddin

Impaired T cell glucose metabolism during chronic hepatitis C virus infection

[4]

14:30 – 14:45

Eddy Tse

An in vitro model of steatosis results in induction of an inflammatory gene profile and impairs the antiviral action of interferon

[58]

14:45 – 15:00

Kate Muller

HCV induced changes in gene expression in non-infected 'bystander' Huh-7 cells

[36]

15:00 – 15:15

Erin McCartney

The role of signal transducer and activator of transcription 3 (STAT3) in the HCV life cycle

[31]

15:15 – 15:30

Julianne Bayliss

Hepatitis B virus defective DNA as a causative factor for hepatocellular carcinoma

[6]

15:30 – 16:00

Riverbank Foyer

Afternoon Tea

16:00 – 17:30

Riverbank Room 1

Concurrent Session 3a Immunology

Chair 1: Eric Gowans

Chair 2: Jacqueline Flynn

16:00 – 16:15

Jason Grebely

Plasma IP10 level predicts spontaneous clearance in acute HCV infection independent of IL28B genotype

[20]

16:15 – 16:30	Peter Sugden Hepatitis C virus-specific effector and regulatory CD4+ T cells in chronic or cleared infection outcomes	[56]
16:30 – 16:45	Paola Giarda Immunopathogenesis of HBeAg and HBsAg seroconversion in HIV-1-HBV co-infection following HBV-active HAART	[18]
16:45 – 17:00	Danica Martinez Increased expression of suppressor of cytokines 3 in HCV non responders is associated with impaired anti-HCV cellular immune response	[33]
17:00 – 17:15	Joe Sasadeusz HIV infection upregulates toll-like receptor expression in chronic Hepatitis B infection	[51]
17:15 – 17:30	Nam Nguyen T cells co-expressing CCR2, CCR5, CXCR3, and CXCR6 are preferentially enriched in the HCV-infected liver	[39]

16:00 – 17:30 **Riverbank Room 1**

Concurrent Session 3b

Model Systems and New Technologies

Chair 1: Silvana Gaudieri

Chair 2: Joey Lai

16:00 – 16:15	Auda Eltahla A Fluorescent-based High Throughput Assay for Screening of inhibitors of Hepatitis C Virus RNA Polymerase Activity	[14]
16:15 – 16:30	Niamh Keane Comparative evaluation of the dual IFN γ /IL-2 dual Fluorospot assay with flow cytometry for detection of HLA-restricted HIV-specific CD8 T cell responses in HIV viremic and elite controllers	[27]
16:30 – 16:45	Linda El-Bayeh Transcriptomics to identify gene expression correlates of the varied pattern and course of hepatitis C related liver disease in transplant allografts	[13]
16:45 – 17:00	Francois Lamore A rapid and affordable research tool for IL28B genotyping: High resolution melt curve analysis	[29]
17:00 – 17:15	Georget Reaiche Optimising conditions for culture of primary duck hepatocytes for <i>in vitro</i> studies of the ability of covalently closed circular DNA to survive mitosis	[47]

17:15 – 17:30	Ronald Luftig A novel approach to three remaining questions of HIV morphogenesis	[30]
17:30 – 18:30	Riverbank Room 3 ACHV Annual General Meeting	
19:00	River Café – War Memorial Drive, North Adelaide (please see Directions on page 5) Pre-Dinner Drinks	
19:30 – 22:30	Dinner	

Day Two: Tuesday, 5th June 2012

07:00 – 08:00 **Sebel Playford - Level 1, Ballroom 1**

Plated Buffet Breakfast (hot selection served at 07:15)

8:00 – 8:45 **Riverbank Rooms 1 and 2**

HIV Plenary

Professor Benhur Lee MD

Title: Beyond coreceptor usage: how the *efficiency* of CD4/CCR5 usage impacts the pathogenic and biological phenotypes of HIV

Chair: Paul Gorry

8:45 – 10:15 **Joint Session 3**
Molecular Virology and Replication

Chair HIV: Andrew Harman
Chair Hepatitis: Michael Beard

8:45 – 9:00 **Hamid Salimi** [50]

Neutrotropic HIV-1 variants with highly efficient macrophage entry adopt conformations in gp120 that simultaneously alter the way in which the Env interacts with both CD4 and CCR5

9:00 – 9:15 **Haran Sivakumaran** [55]

Disruption of HIV-1 Rev Trafficking and Function by a Tat Mutant

9:15 – 9:30 **Guillaume Fiches** [16]

Dynamics of HCV Viral RNA traffic and localisation

9:30 – 9:45 **Mahsa Shahidi** [54]

Endocannabinoid CB1 receptor antagonists inhibit hepatitis C virus production

9:45 – 10:15 **Michael Lai**
Formation of the HCV Replication Complex (invited speaker)

10:15 – 10:45 **Riverbank Foyer**

Morning Tea

10:45 – 12:45

Riverbank Room 1
Concurrent Session 4a
HIV Host-Cell Interactions

Chair 1: Melissa Churchill
Chair 2: Stuart Turville

- 10:45 – 11:00** **Clovis Palmer** [42]
Glucose transporter 1 is a functional marker of CD4+ T glycolytic activity and permissiveness to HIV-1 infection
- 11:00 – 11:15** **Ting Wei** [61]
Eukaryotic elongation factor 1 translation complex subunits are critical HIV-1 reverse transcription co-factors
- 11:15 – 11:30** **Sabine Piller** [43]
Effect of patient derived mutations in HIV-1 Vpr on its function
- 11:30 – 11:45** **Valerie Marsden** [32]
The Effect of HIV-1 and HSV-2 Co-infection in Dendritic Cells
- 11:45 – 12:00** **Rachel Botting** [7]
The Role of Rab Proteins in Intracellular Trafficking of HIV through Dendritic Cells and Subsequent Transfer to T-Cells
- 12:00 – 12:15** **Thomas Angelovich** [3]
Monocyte subsets are proportionally and functionally altered with age and HIV infection
- 12:15 – 12:30** **Anupriya Aggarwal** [1]
Mobilization of HIV spread by dendritic cells via diaphanous 2 dependent filopodia
- 12:30 – 12:45** **Nitin Saxena** [63]
Parallel Genome-wide mRNA and miRNA analysis of HIV-HCV Co-infected Peripheral Blood Mononuclear Cells (PBMC) Reveal Distinct Micro-RNAs Regulating Co-infection

10:45 – 12:45

Riverbank Room 3
Concurrent Session 4b
Epidemiology and Treatment

Chair 1: Nick Shackel
Chair 2: Jason Grebely

- 10:45 – 11:00** **Kumar Visvanathan** [60]
TLR2 and TLR7/8 activation predict which patient will have a post partum flare and examination of the dynamics of innate immune responses and associated virological parameters during and after pregnancy of HBV mothers

11:00 – 11:15	Mark Gorrell Host proteases in HCV infection and as liver injury markers	[19]
11:15 – 11:30	Sumudu Narayana The interferon-induced transmembrane (IFITM) proteins have anti-HCV activity <i>in vitro</i>	[37]
11:30 – 11:45	Eric Gowans A second generation therapeutic cellular vaccine for hepatitis C virus	[66]
11:45 – 12:00	Liz Bannister Molecular characterization of hepatitis B virus in children of African descent living in Australia	[5]
12:00 – 12:15	Catherine Scougall To study the ability of Tenofovir and Emtricitabine in monotherapy and combination therapy to treat chronic duck hepatitis B virus infection <i>in vivo</i>	[52]
12:15 – 12:30	Margaret Littlejohn Molecular Epidemiology of Hepatitis B in Indigenous Australian Populations	[23]
12:30 – 12:45	Behzad Hajarizadeh Patterns of HCV RNA during Acute Hepatitis C Virus Infection Guide Optimum Timing for Therapeutic Intervention	[22]

12:45 – 13:45

Riverbank Foyer

Lunch

Riverbank Room 4

Lunch with international guests

Riverbank Boardroom

ACH² Executive Meeting & Working Lunch

13:45 – 15:15

Riverbank Room 1

Concurrent Session 5a Vaccines

Chair 1: Rob Center
Chair 2: Peter Sugden

- 13:45 – 14:00** **Jessica Moffat** [35]
Processing of hepatitis B virus-like particles by dendritic cells for T cell presentation and activation
- 14:00 – 14:15** **Dominic Douglas** [11]
Hepatitis B vaccination uptake in injecting drug users in the NSW prisons
- 14:15 – 14:30** **Pooja Deshpande** [10]
HCV specific CD8⁺ T cell targets show limited ability to generate cross-genotype responses
- 14:30 – 14:45** **Wenbo Yu** [62]
A novel challenge model to evaluate the efficacy of HCV vaccines in mice
- 14:45 – 15:00** **Charani Ranasinghe** [45]
Novel Vaccine Strategies that Modulate HIV-specific CD8 T Cell Avidity
- 15:00 – 15:15** **Damian Purcell** [65]
Phenotyping and immunogenicity of HIV-1 Env from MSM transmission strains

13:45 – 15:30

Riverbank Room 3

Concurrent Session 5b Genomics and Gene Control

Chair 1: Kumar Visvanathan
Chair 2: Renee Duncan

- 13:45 – 14:00** **Jonathan Jacobson** [42]
Expression of HIV-1 Tat by an internal ribosome entry mechanism reveals a novel pathway for Tat trans-activation from latent provirus
- 14:00 – 14:15** **Brendan Jacka** [26]
Sequencing of the hepatitis C virus: a systematic review
- 14:15 – 14:30** **Adrian Ong** [40]
Deep sequencing of hepatitis C virus
- 14:30 – 14:45** **Viviane Conceicao** [64]
Genomic basis of drug-mediated and natural control of plasma viremia in HIV patients

14:45 – 15:00	Vincent Cutillas Investigation of Transdominant Negative Mutants that Inhibit HIV-1	[9]
15:00 – 15:15	Nicholas Shackel Differential gene expression observed in Hepatitis C virus genotypes	[53]
15:15 – 15:30	Kylie Van der Hoek Evolution of HCV in vitro following low dose IFN treatment using deep sequencing technology	[59]
16:00	Buses depart Adelaide Convention Centre Adelaide Hills Wineries Tour and Tastings	
19:00	Penny's Hill Dinner and Awards Presentation	

Day Three: Wednesday, 6th June 2012

07:15 – 08:15

Sebel Playford – Level 1, Ballroom 1

Plated Buffet Breakfast (hot selection served at 07:30)

Adelaide Convention Centre

Asia-Pacific Congress of Medical Virology

Morning session held jointly with ACH² and APCMV

08:30 - 08:45

Opening Ceremony

08:45 – 10:30

Plenary 1: HCV

Michael Lai

Plenary 2: HBV

Heiner Wedemeyer

Peter Revill

Down-regulation of IFN- γ expression and IL-18 mediated cell signalling by hepatitis B virus

[48]

Nicholas Eyre

Dynamic imaging of the hepatitis C virus NS5A protein during a productive infection

[15]

Yee-JooTan

The variable N terminal region of DDX5 contains structural elements and auto-inhibits its interaction with NS5B of hepatitis C virus

10:30 – 11:00

Morning Tea and Posters

11:00 – 12:30

Plenary 3: Public Health and HIV

Adeeba Kamarulzaman

Plenary 4: HIV

Benhur Lee

Suha Saleh

Unique integration patterns in an *in vitro* model of HIV latency

[49]

Tony Purcell

Epitope discovery and quantitation: Next generation immunopeptidomics

[44]

12:30 – 14:00

Lunch and Posters

If attending the Asia-Pacific Congress of Medical Virology after 14:00, please register at www.sapmea.asn.au/apcmv2012

14:30

Buses depart the Adelaide Convention Centre for Adelaide Airport