

7th Annual Workshop

Novotel Twin Waters Resort, Sunshine Coast, 1st to 3rd June 2011

Day One: Wednesday, 1st June 2011

11:00 – 12:00 **Registration, Check-in and Refreshments**

12:00 – 13:00 **Mudjimba Verandah**

Buffet Lunch

13:00 – 13:15 **Mudjimba Ballroom**

Welcome

Tony Cunningham (ACH²) and Michael Beard (ACHV)

HCV Plenary

13:15 – 14:00 **Dr. John McLauchlan**
University of Glasgow

Hiding between the sheets – Insights into HCV replication

Chair: Mark Douglas

14:00 – 15:00 **Joint Session 1**
Virus-Host Cell Interactions

Chair HIV: Andy Poubourios
Chair Hepatitis: Mark Douglas

14:00 – 14:15 **Nick Eyre** [14]
Dynamic imaging of the hepatitis C virus NS5A protein during a productive infection

14:15 – 14:30 **Ting Wei** [2]
Cellular Factors and HIV-1 Reverse Transcription

14:30 – 14:45	Scott Read PPAR α agonist WY14643 improves the antiviral effect of interferon against hepatitis C virus	[48]
14:45 – 15:00	Marina Alexander Histone deacetylase inhibitors control splicing of latent HIV-1 mRNA	[66]
15:00 – 15:30	Mudjimba Verandah	
	Afternoon Tea	
15:30 – 17:30	Mudjimba Ballroom	
	Concurrent Session 2a HIV Entry, Replication and Intracellular Events	
	Chair 1: Andrew Harman Chair 2: Rob Center	
15:30 – 15:45	Andy Poubourios (Late Breaker) Conformational States of HIV-1 gp41 Revealed by Cysteine Scanning Mutagenesis	[73]
15:45 – 16:00	Haram Sivakumaran Arginine Methylation Increases the Stability of HIV-1 Tat	[55]
16:00 – 16:15	Tom Partridge Induction of SerpinB2 by SIV in macaques and determining the role of SerpinB2 in HIV infection using mouse infection with EcoHIV	[41]
16:15 – 16:30	Min-Hsuan Lin An HIV-1 Tat mutant interferes with Rev trafficking	[27]
16:30 – 16:45	Valerie Marsden The Effect of HIV-1 and HSV-2 Co-infection in Dendritic Cells	[31]
16:45 – 17:00	Delphine Allan Structure-function mapping of 2kb translation active HIV-1 mRNA using SHAPE analysis	[3]
17:00 – 17:15	Sarah Mercier Microvesicles play a role in HIV infection of dendritic cells	[36]

15:30 – 17:15

Maroochy Room

Concurrent Session 2b Hepatitis Immunology

Chair 1: Rosemary Ffrench

Chair 2: Tanya Applegate

15:30 – 15:45

Emma Grant

Novel measures for assessing HCV-Specific T cell immunity

[18]

15:45 – 16:00

Mark Watson

HCV cross genotype neutralisation: Identification and Cloning of Human Antibodies to HCV

[65]

16:00 – 16:15

Joe Torresi

Recombinant mammalian cell derived HCV virus like particles induce cell-mediated immune and neutralising antibody responses to HCV

[60]

16:15 – 16:30

Sean Pham

Cellular immunity in injecting drug user (IDU) prison inmates with multiple genotype HCV infection

[42]

16:30 – 16:45

Jeff Smith

Characterisation of Interferon-lambda producing cells in HCV infection and the influence of polymorphisms on HCV clearance

[56]

16:45 – 17:00

David Williamson

From Energy to Exhaustion: Longitudinal Assessment of T Cell Glucose Metabolism in Hepatitis C Viral Infection

[68]

17:00 – 17:15

Mandvi Bharadwaj

Coping with hyper mutable HCV

[9]

17:15 – 18:00

Maroochy Room

ACH² Executive Meeting

18:00 – 19:00

Mudjimba Verandah

Pre-Dinner Drinks

19:00

Nouveau Restaurant

Dinner

Day Two: Thursday, 2nd June 2011

7:00 - 8:45

Nouveau Restaurant

Breakfast

8:45 – 9:30

Mudjimba Ballroom

HIV Plenary

Associate Professor Paula Cannon
University of Southern California

A stem cell therapy for HIV based on CCR5 gene knockout – and how to get this into the clinic

Chair: David Harrich

9:30 – 10:30

Joint Session 3 Chemokines and Clinical Disease

Chair HIV: David Harrich
Chair Hepatitis: Silvana Gaudieri

9:30 – 9:45

Michael Roche

HIV-1 escape from the CCR5 antagonist maraviroc associated with an altered and less efficient mechanism of gp120-CCR5 engagement that attenuates macrophage tropism

[51]

9:45 – 10:00

Nam Nguyen

Multiple chemokine receptors simultaneously expressed on T cells are enriched in the chronic HCV-infected liver

[40]

10:00 – 10:15

Suha Saleh

The PI3K signaling pathway is critical for HIV integration in latently infected resting CD4+T-cells

[52]

10:15 – 10:30

Jason Grebely

IP-10 is associated with spontaneous clearance of recent hepatitis C virus infection

[19]

10:30 – 11:00 **Mudjimba Verandah**

Morning Tea

11:00 – 12:30 **Maroochy Room**

Concurrent Session 4a HIV Immunity

Chair 1: Charani Ranasinghe

Chair 2: Amanda Brass

11:00 – 11:15 **Chansayath Phetsouphanh** [43]
Ox40/CD25 assay detects antigen specific recall responses from Memory CD4+ T cells

11:15 – 11:30 **Anna Maisa** [30]
HaCH Study: Monocyte activation markers associated with cardiovascular disease in HIV patients

11:30 – 11:45 **Danushka Wijesundara** [67]
Do IL-4Ra and IL-13Ra2 receptor expression levels on CD8⁺ T cells play a role in avidity?

11:45 – 12:00 **Jegaskanda Sinthujan** [23]
Comparison of Influenza and SIV specific CD8 T cell responses in pigtail macaques

12:00 – 12:15 **Gabriela Khoury** [24]
The effect of IL-7 on HIV infection of naïve and resting memory T-cells

12:15 – 12:30 **Jayashree Ravichandran** [47]
Role of IL-17 in HIV-Specific Immunity: Is IL-17 involved in T cell avidity

12:30 – 12:45 **Kristin McBride** [34]
Integrated HIV-1 DNA in resting CD4+ T cell subsets in patients during untreated chronic infection

11:00 – 12:45 **Mudjimba Ballroom**

Concurrent Session 4b Hepatitis Cellular and Molecular Virology

Chair 1: Karla Helbig

Chair 2: Margaret Littlejohn

11:00 – 11:15 **Heidi Drummer (Late Breaker)** [72]
The ectodomains of hepatitis C virus glycoproteins E1 and E2 can be expressed as soluble heterodimers in insect cells

11:15 – 11:30	Georget Reaiche In vitro studies of the ability of covalently closed circular duck hepatitis B virus DNA to survive mitosis in cultures of primary duck embryo hepatocytes	[50]
11:30 – 11:45	Georget Reaiche In vivo studies of the ability of duck hepatitis B virus (DHBV) covalently closed circular DNA to survive mitosis	[49]
11:45 – 12:00	Guillaume Fiches The influence of Hepatitis C Virus genotype on NS5A protein localisation and traffic	[74]
12:00 – 12:15	Mahsa Shahidi HCV-induced IFN-I mediates increased endocannabinoid CB1 receptor expression in a cell culture model	[54]
12:15 – 12:30	Nicholas Shackel mRNA and miRNA expressions associated with HCV-induced hepatocellular carcinoma	[53]
12:30 – 12:45	Joe Torresi Hepatitis B virus induces loss of CIAP1 and sensitivity to TNF-ALPHA in primary hepatocytes	[59]
12:45 – 13:45	Nouveau Restaurant Lunch Mudjimba Verandah Lunch with international guests	
13:45 – 15:45	Mudjimba Ballroom Concurrent Session 5a Vaccines Chair 1: Hans Netter Chair 2: Andrew Lloyd	
13:45 – 14:00	Eric Gowans Approaches to increase the efficacy of DNA vaccination	[17]
14:00 – 14:15	Michiko Hyakamura Development of human hepatitis B virus surface antigen (HBsAg) particles as platform to deliver the neutralising epitopes from the human immunodeficiency virus type 1 (HIV-1)	[22]
14:15 – 14:30	Charani Ranasingh Development of vaccines to enhance HIV-Specific CD8+ T Cell avidity and protective immunity	[46]

14:30 – 14:45	Wan-Shoo Cheong Modulation of the immunogenicity of virus-like particles composed of mutant subunits	[12]
14:45 – 15:00	Amanda Brass HIV Gag MicroCube vaccine elicits robust murine immune responses <i>in vivo</i> and stimulates human HIV-specific immune responses <i>in vitro</i>	[10]
15:00 – 15:30	Shubhanshi Trivedi Elucidating the role of Interleukin-3 (IL-3) in HIV-1 prime-boost immunization	[61]
15:30 – 15:45	Rob Center Assessing a novel brain-derived HIV envelope protein for utility as an immunogen	[11]

13:30 – 15:15

Maroochy Room

Concurrent Session 5b Innate Immunity

Chair 1: Kumar Visvanathan

Chair 2: Georget Reaiche

13:30 – 13:45	Andrew Harman HIV-1 induces an ISG subset via IRF but inhibits interferon induction	[20]
13:45 – 14:00	Sumudu Narayana The interferon-induced transmembrane (IFITM) proteins 1 and 2 have anti-HCV activity <i>in vitro</i>	[38]
14:00 – 14:15	Chantelle Ahlenstiel Direct evidence of nuclear Argonaute distribution during HIV-1 transcriptional gene silencing links the actin cytoskeleton to nuclear RNAi machinery	[1]
14:15 – 14:30	Edmund Tse An <i>in vitro</i> model of steatosis induces ISG expression: implications for chronic hepatitis C	[62]
14:30 – 14:45	Joe Torresi Dysregulation of Hepatocyte Signal Transduction, cIAP1 and Apoptosis by Hepatitis C virus	[58]
14:45 – 15:00	Najla Nasr HIV induces antiviral viperin in macrophages	[39]
15:00 – 15:15	Karla Helbig The discovery and regulation of novel host anti-HCV effectors	[21]

15:30 – 16:00

Mudjimba Verandah

Afternoon Tea

16:00 – 17:30

Mudjimba Ballroom

Concurrent Session 6a New Technologies

Chair 1: Eric Gowans

Chair 2: Tony Cunningham

16:00 – 16:15

David Anderson

[4]

Development and preliminary validation of a visual rapid, point of care test and optional instrument reader for measurement of CD4 T-cells at point of care

16:15 – 16:30

Damian Purcell

[45]

Characteristics of Hyperimmune Bovine Colostrum Antibodies: Broad Binding and Neutralizing Activity Against HIV-1

16:30 – 16:45

Ann Apolloni

[7]

A New, Potent Transdominant Negative Tat Blocks HIV-1 Replication

16:45: - 17:00

Chanasayah Phetsouphanh

[44]

Re-characterizing Antigen Specific CD4+ T cells using the Ox40/CD25 assay and Single-cell RT-PCR

17:00 – 17:15

Auda Eltahl

[13]

A Fluorescent-based high throughput screening (HTS) campaign against the Hepatitis C Virus (HCV) genotype 3a RNA polymerase

17:15 – 17:30

Adrian Ong (Late Breaker)

[71]

Solid phase extraction and measurement of serum and plasma endocannabinoid levels in hepatitis C

16:00 – 17:30

Mudjimba Ballroom

Concurrent Session 6b Clinical Studies

Chair 1: Nicholas Shackel

Chair 2: Stephen Locarnini

- 16:00 – 16:15** **Fabio Luciani** [29]
Bloody prisons - predictors of risk behaviour, HCV incidence, and infection outcome in high-risk IDU prisoners
- 16:15 – 16:30** **Peter Sugden** [57]
Two center, masked replication study of occult hepatitis C virus in peripheral blood of high risk seronegative subjects who are apparently uninfected
- 16:30 – 16:45** **Leia Wren** [70]
Broad ADCC responses and ADCC directed at VPU epitopes in humans is associated with slow progression of HIV
- 16:45 – 17:00** **Carley Gemelli** [16]
Characterisation of the innate immunological responses of HBV infection during and after pregnancy
- 17:00 – 17:15** **Kristen McBride** [33]
The Use of Raltegravir in Primary and Chronic HIV-1 Infection and its Effects on the Viral Reservoir
- 17:15 – 17:30** **Tanya Applegate** [6]
Impact of host and viral characteristics on treatment outcome within hepatitis C transmission clusters in HIV positive individuals with recently acquired HCV

17:30 – 18:30

Maroochy Room

ACHV Annual General Meeting

19:00 – 22:00

Lily's on the Lagoon

Dinner

Day Three: Friday, 3rd June 2011

7:00 – 8:30

Nouveau Restaurant

Breakfast

9:00 – 10:45

Mudjimba Ballroom

Joint Session 7

Viral Genomics

Chair 1: Peter Revill
Chair 2: Peter White

9:00 – 9:30

Invited Speaker

Professor Anna Kramvis

Phylogeography of subgenotype A1 of Hepatitis B Virus in Africa

[25]

9:30 – 9:45

Margaret Littlejohn

Analysis of precore/core mutations associated with HBeAg seroconversion

[28]

9:45 - 10:00

Kylie van der Hoek

Gene Expression following HCV Infection of Huh7 And Huh7.5 Cells

[64]

10:00 – 10:15

Li Long

Next generation sequencing technologies to study HCV: available methods and new perspectives

[26]

10:15 – 10:30

Francesco Moriconi

Development of an Online Genotypic Drug Resistance Testing and Monitoring Program for Chronic Hepatitis C

[37]

10:30 – 10:45

Silvana Gaudieri

Signature resistance mutations to directly acting antiviral agents occur at low prevalence in treatment naïve subjects with recently acquired HCV

[15]

10:45 – 11:15

Mudjimba Verandah

Morning Tea

11:15 – 12:15

Mudjimba Ballroom

Joint Session 8 Hepatitis Virus Replication

Chair 1: Sharon Lewin
Chair 2: Michael Beard

11:15 – 11:30

Erin McCartney

[35]

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

11:30 – 11:45

Rachel Wilson

[69]

The hepatitis B e antigen manipulates TIR-mediated innate immunity in hepatocytes in a genotype-specific manner

11:45 – 12:00

Elizabeth Bannister

[8]

Studies of chronic hepatitis B virus infection in African children: introduction to Ph.D program

12:00 – 12:15

Thomas Tu

[63]

Clonal proliferation of hepatocytes during chronic hepatitis B virus infection

12:30 – 13:00

Mudjimba Ballroom

12:30 – 12:55

Awards

12:55– 13:00

Closing Remarks

Tony Cunningham

13:00 – 13:10

Mudjimba Verandah

Collect Box Lunch

13:10

Coaches depart Novotel Twin Waters Resort

13:30

Coaches arrive Sunshine Coast Airport