Sunday 19 April 2015

2:00pm – 5:00pm  Registration at Brisbane Convention and Exhibition Centre
   Boulevard Level, Grey Street Entrance, South Bank

Monday 20 April 2015

7:30am – 5:00pm  Registration
   Boulevard Level, Grey Street Entrance, South Bank

Welcome and acknowledgements

8:30am – 8.35am  Introduction and Acknowledgements – Rajiv Khanna

8:35am – 8:45am  Welcome – The Right Honourable Lord Mayor of Brisbane, Councillor Graham Quirk

Session I: Inaugural session
   Chair: William Rawlinson

8:45am – 8:50am  Presentation of Congenital CMV Award

8:50am – 8:55am  O1 Inaugural Address – Suresh Boppana – Global burden of congenital CMV infection

9:15am – 9:40am  O2 Keynote Lecture I – Kate Daly, Congenital CMV Association of Australia and Janelle Greenlee, USA Stop CMV – How CMV affected my family, congenital CMV and consequences

9:40am – 10:10am  Panel Discussion – Congenital CMV and Clinical and Community Effects
   Moderator: William Rawlinson
   Panel: Gail Demmler, Michelle Giles, Pam Palasanthiran and Mark Schleiss

10:10am – 10:30am  Morning Tea - Boulevard Foyer – Sponsored by Microbiotix Inc
### Session II: Congenital CMV – Population studies
**Chair:** Suresh Boppana and Helen Farrell

<table>
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<tr>
<td>10:30am – 10:50am</td>
<td><strong>O3 Invited Lecture I – Tiziana Lazzarotto</strong> – From screening to diagnosis of active human cytomegalovirus infection during pregnancy</td>
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<tr>
<td>10:50am – 11:10am</td>
<td><strong>O4 Invited Lecture II – David Kimberlin</strong> – Therapy of neonates for congenital CMV</td>
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<td>11:10am – 11:22am</td>
<td><strong>O5 Sara Doutre</strong> – CMV public health initiatives: A legislative approach</td>
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<td>11:23am – 11:35am</td>
<td><strong>O6 Maurizio Zavattoni</strong> – Maternal human cytomegalovirus DNAemia as a prognostic marker of fetal infection</td>
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<td>11:36am – 11:48am</td>
<td><strong>O7 Fleurtje Schornagel</strong> – Congenital cytomegalovirus: Clinical and laboratory aspects and hearing loss in asymptomatic infants, the CONCERT study</td>
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<tr>
<td>11:49am – 12:01pm</td>
<td><strong>O8 Hayley Smithers-Sheedy</strong> – Neuroimaging findings in a series of children with cerebral palsy and congenital cytomegalovirus infection</td>
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<td>12:02pm – 12:14pm</td>
<td><strong>O9 Klaus Hamprecht</strong> – CMV HIG therapy: Lessons from comprehensive CMV antibody monitoring</td>
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<td>12:14pm – 12:26pm</td>
<td><strong>O10 Marianne Leruez-Ville</strong> – In UTERO treatment of cytomegalovirus congenital infection with valacyclovir (CYMEVAL II) NCT01651585</td>
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<td>12:30pm – 1:30pm</td>
<td><strong>Lunch - Boulevard Foyer</strong> – Sponsored by DiaSorin</td>
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#### Lunchtime Workshop - Arbour Boardroom
*Please collect your lunch from the Boulevard Foyer and bring this along to the workshop*

**Neonatal Screening – Outcomes of US and Consensus Recommendations Meeting** – Karen Fowler, Janelle Greenlee, David Kimberlin, Mark Schleiss and Kate Daly

### Session III: Congenital CMV – Clinical aspects and novel diagnostics
**Chair:** Gail Demmler-Harrison and Brian McSharry

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<tr>
<td>1:30pm – 1:50pm</td>
<td><strong>O11 Invited Lecture – Paul Griffiths</strong> – Screening for congenital CMV infection</td>
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</table>
1:50pm – 2:10pm  O12  Invited Lecture – Karen Fowler – Congenital CMV infection and hearing loss: the NIDCD CHIMES Study

2:10pm – 2:12pm  O13  Tatiana Lanzieri – Sensorineural hearing loss in children with asymptomatic congenital cytomegalovirus infection identified through newborn screening followed for up to 18 years – The Houston congenital cytomegalovirus longitudinal study

2:13pm – 2:25pm  O14  Liliana Gabrielli – Placental histological study in the randomized placebo-controlled trial of hyperimmune globulin – CHIP study

2:26pm – 2:48pm  O15  Adriana Lopez – Cognitive outcomes of children with asymptomatic congenital cytomegalovirus (AcCMV) infection at 13-17 years of age: Houston longitudinal cohort study

2:49pm – 3:01pm  O16  Shannon Ross – Predictors of sensorineural hearing loss (SNHL) and neurodevelopmental outcome in infants with symptomatic congenital cytomegalovirus (cCMV) infection

3:05pm – 3:30pm  Afternoon Tea - Boulevard Foyer

### Session IV: Diagnostics and animal models for congenital CMV
Chair: Laura Gibson and Stuart Hamilton

3:30pm – 4:00pm  O17  Invited Lecture – Sheila Dollard – CMV in maternal breast milk may complicate testing of newborn saliva and the need for novel diagnostic strategies for congenital CMV

4:00pm – 4:20pm  O18  Invited Lecture – Mark Schleiss – Animal models of transmission of congenital CMV

4:20pm – 4:32pm  O19  Stephanie Bialek – Outcomes of infants with congenital cytomegalovirus infection identified through newborn screening in Shandong Province, China, 2011-2013

4:33pm – 4:45pm  O20  Gail Demmler-Harrison – Hearing device interventions in children with congenital cytomegalovirus infection (cCMV) and sensorineural hearing loss 9SNHL – The Houston congenital cytomegalovirus longitudinal study

4:46pm – 4:58pm  O21  Suresh Boppana – Congenital Cytomegalovirus Infection, permanent congenital or early-onset hearing loss and connexion gene mutations in rural North India

4:59pm – 5:11pm  O22  Yeon Choi – Live vaccine strategies demonstrate the potential importance of humoral responses to the pentameric complex in the guinea pig congenital CMV model

5:12pm – 5:24pm  O23  Alistair McGregor – Restoration of epithelial tropism in lab adapted guinea pig CMV (GPCMV) results in a virus with greater pathogenicity in both seropositive and negative animals as well as increased congenital infection rates
Tuesday 21 April 2015

7:30am – 5:00pm  Registration
Boulevard Level, Grey Street Entrance, South Bank

Session V: Pathogenesis of congenital CMV infection
Chair: Thomas Stamminger and Zin Naing

8:30am – 9:00am  O24 Keynote Lecture II – Geoffrey Shellam – Pathogenesis studies and congenital transmission: insights from the murine cytomegalovirus mouse model

9:00am – 9:20am  O25 Invited Lecture – Lenore Pereira – Human cytomegalovirus infection interferes with the maintenance and differentiation of trophoblast progenitor cells of the human placenta

9:20am – 9:32am  O26 Wendy van Zuijlen – Human cytomegalovirus-induced deregulation of Wnt signalling as contributor to congenital CMV disease

9:33am – 9:45am  O27 Vanda Juranic Lisnic – MCMV encoded highly abundant transcript with several coding, non-coding and immune-evasive roles

9:46am – 9:58am  O28 Shannon Ross – Laboratory and neuroimaging evaluation of asymptomatic infants with congenital CMV infection: Findings from the NIDCD CHIMES study

9:59am – 10:11am  O29 Brian McSharry – Abrogation of the interferon response promotes more efficient human cytomegalovirus replication

10:12am – 10:24am  O30 Chéneau Coraline – DC-SIGN interacts with the HCMV envelope glycoprotein B through its lectin domain but may not be sufficient to account for the overall avidity of the lectin for HCMV particles

10.30am – 11:00am  Morning Tea - Boulevard Foyer
Session VI: Immunology and congenital infection
Chair: Mark Wills and John Miles

11:00am – 11:20am  O31 Invited Lecture – Stipan Jonjic – Pathogenesis of cytomegalovirus infection in ovary: Mechanisms of differential resistance of corpora lutea and follicles to infection

11:20am – 11:40am  O32 Invited Lecture – Laura Gibson – Neonatal adaptive immune responses to cytomegalovirus

11:40am – 11:52am  O33 Kristy Bialas – Maternal CD4+ T cell depletion enhances congenital rhesus CMV disease

11:53am – 12:05pm  O34 Selmir Avdic – Human cytomegalovirus encoded cmvIL-10 induces human IL-10 protein secretion via induction of heme oxygenase 1

12:06pm – 12:18pm  O35 Heidi Burke – Crystal structure of HCMV gB ectodomain

12:19pm – 12:31pm  O36 Albert Park – An ineffective natural killer cell response and reactive species production mediate CMV induced hearing loss in a murine model

12:32pm – 12:44pm  O37 Stuart Adler – A phase 1 study of 4 live, recombinant human cytomegalovirus towne/toledo chimeric vaccines

12:45pm – 12:57pm  O38 Michael A. McVoy - Cytomegalovirus shed in urine cannot be neutralized by monoclonal or polyclonal antibodies prior to growth in fibroblasts

1:00pm – 2:00pm  Lunch - Boulevard Foyer – Sponsored by Roche Diagnostics Australia Pty Ltd

Session VII: Virus-host interactions in Congenital CMV Infection
Chair: Mark Schleiss and Selmir Avdic

2:00pm – 2:20pm  O39 Invited Lecture – Timothy Kowalik – Application of deep sequencing and population genetics to quantify HCMV reinfection

2:20pm – 2:40pm  O40 Invited Lecture – Sophie Alain – CMV in childcare and other high risk situations

2:40pm – 3:10pm  Panel Discussion – Treatment of Congenital CMV Infection
Moderator: William Rawlinson
Panel: Stuart Adler, Paul Griffiths, Lisa Hui and Giovanni Nigro

3:10pm – 3:22pm  O41 Eric Sonntag – Understanding the function by mapping the interaction domains of the cytomegalovirus-specific nuclear egress complex
3:22pm – 3:34pm  O42 Carolyn Tu – HCMV UL111A and US27 synergize to enhance signaling of CXCR4

3:35pm – 4:00pm  Afternoon Tea - Boulevard Foyer

**Session VIII: Vaccine strategies to prevent CMV infection**
**Chair: Paul Griffiths and Wendy van Zuijlen**

4:00pm – 4:20pm  O43 Invited Lecture – Stanley Plotkin – Candidate vaccines against cytomegalovirus

4:20pm – 4:40pm  O44 Invited Lecture – Tong-Ming Fu – A replication defective human cytomegalovirus (CMV) vaccine

4:40pm – 5:20pm  O45 Felix Wussow – Human cytomegalovirus vaccine based on the envelope gH/gL pentamer complex

4:53pm – 5:05pm  O46 Michael McVoy – A vaxfectin®- Formulated DNA vaccine induces antibodies that block cytomegalovirus entry into fibroblasts and epithelial cells

5:06pm – 5:18pm  O47 Yujuan Yue – Protective efficacy of gH/L complex and gH/L/UL128/UL130/UL131 pentamer based vaccines against orally challenged RhCMV

5:18pm – 5:30pm  O48 Daniele Lilleri – Antibody-driven vaccine design: The human cytomegalovirus gHgLpUL128L complex as a subunit vaccine that selectively elicits potent neutralizing antibodies

**Public Forum I - Boulevard Auditorium**

6:00pm – 7:30pm  Cytomegalovirus: every pregnant woman and their doctor should know about this virus

*Moderator: William Rawlinson*

*Parent’s perspective: Kate Daly and Abby Coleman*

*Transmission and effects on the baby: Mark Schleiss*

*New therapies and vaccines: Stanley Plotkin*

*Q&A session: “CMV, screening, pregnancy, and birth defects” led by Janelle Greenlee*
Wednesday 22 April 2015

7:30am – 5:00pm  Registration
Boulevard Level, Grey Street Entrance, South Bank

Session IX: CMV latency and reactivation
Chair: Barry Slobedman and Lenore Pereira

8:30am – 9:00am  **049 Keynote Lecture III – John Sinclair** – HCMV latency - changes in the latently infected cell as targets to clear latent infection

9:00am – 9:12am  **050 Benjamin Krishna** – The latency-associated expression of the human cytomegalovirus US28 gene allows targeting of latently infected cells with a novel immunotoxin

9:13am – 9:25am  **051 Anne L'Hernault** – Identification of cellular and viral genes regulated by murine cytomegalovirus miRNAs during lytic infection using RIP-Chip and PAR-CLIP

9:26am – 9:38am  **052 Emily Machala** – Human cytomegalovirus differentially regulates the immunomodulatory proteins galectin-1 and galectin-9

9:39am – 9:51am  **053 Rhonda Cardin** – Murine cytomegalovirus infects hematopoietic progenitors, monocytes, dendritic cells, and stromal cells during latent infection

9:52am – 10:04am  **054 Baca Chan** – The MCMV protein M35 is a novel negative regulator of the type I IFN response

10:05am – 10:17am  **055 Wolfram Brune** – Identification of a new cytomegalovirus host range determinant

10:18am – 10:30am  **056 Min-Hua Luo** - Human Cytomegalovirus Infection Dysregulates the Localization and Stability of NICD1 and Jag1 in Neural Progenitor Cells via Proteasome Pathway

10:30am – 11:00am  Morning Tea - Boulevard Foyer

Session X: CMV and transplantation
Chair: Manfred Marschall and Nick Davis-Poynter

11:00am – 11:20am  **057 Invited Lecture – Per Ljungman** – CMV in allogeneic stem cell transplant recipients; friend or foe?

11:20am – 11:40am  **058 Invited Lecture – Vince Emery** – Pathogenesis and immune control of CMV in the immunocompromised host
11:40am – 11:52am  **O59 Sophie Alain** – Bridging the gap: Benefits and emergence of resistance using maribavir as rescue therapy in European transplant recipients

11:53am – 12:07pm  **O60 Angela Chiereghin** – Monitoring of cytomegalovirus-specific CD8+ T-cell responses using the QuantiFERON®-CMV assay in heart transplant (HT) recipients

12:08pm – 12:20pm  **O61 Sebastian Voigt** – Interaction of endogenous and CMV-encoded gamma-chemokine XCL1 with XCR1+ dendritic cells

12:21pm – 12:33pm  **O62 Sarah Jackson** – Direct control of viral dissemination by HCMV specific CD8+ T cells

12:34pm – 12:46pm  **O63 Niels Bovenschen** – Cytotoxic lymphocyte proteases hit cytomegalovirus from different angles

12:47pm – 12:59pm  **O64 Luka Cicin-Sain** – Peptide expression context determines direct T-cell priming potential, memory inflation and immune protection against CMV

1:00pm – 2:00pm  **Lunch - Boulevard Level** – Sponsored by QIAGEN – Comprehensive CMV Monitoring

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**Session XI: Virus gene expression and proteomics**  
**Chair:** Stuart Adler and Tiziana Lazzarotto

2:00pm – 2:20pm  **O65 Invited Lecture – Gavin Wilkinson** – UL141: A busy gene that gets lost

2:20pm – 2:40pm  **O66 Invited Lecture – Deborah Spector** – Transcripts, transcripts everywhere – how do we make sense of it all?

2:40pm – 3:00pm  **O67 Invited Lecture – Michael Weekes** – Megaproteomic analysis of the human cytomegalovirus US12 gene family

3:00pm – 3:12pm  **O68 Vu Thuy Khanh Le** – Mutational analysis of proteins interacting with the MCMV-encoded interferon antagonist pM27

3:13pm – 3:25pm  **O69 Simone Forbes** – Characterisation of a recombinant human cytomegalovirus encoding interferon beta

3:26pm – 3:38pm  **O70 Fenyong Liu** – Human cytomegalovirus capsid assembly protein interacts with human small ubiquitin-like modifier (SUMO)-conjugating E2 enzyme UBC9

3:40pm – 4:00pm  **Afternoon Tea - Boulevard Level** – Sponsored by CSL Ltd
Session XII: Pathogenesis and genomics
Chairs: Gavin Wilkinson and Mariapia Degli-Esposti

4:00pm – 4:20pm  O71 Invited Lecture – Andrew Davison – High-throughput sequencing of HCMV genomes

4:20pm – 4:40pm  O72 Invited Lecture – Thomas Stamminger – Human cytomegalovirus IE1: An enigmatic regulatory protein antagonizing innate immune defense mechanisms

4:40pm – 4:52pm  O73 Jonathan Lau – Human cytomegalovirus latency-associated protein LUNA regulates latent viral gene expression in association with the myeloid transcription factor GATA-2

4:53pm – 5:05pm  O74 Matthew Reeves – The role of Src-family kinases in human cytomegalovirus reactivation

Weller-Smith Oration
Chair: Barry Slobedman

5:05pm – 5:45pm  O75 Weller-Smith Orator – Ed Mocarski - Cytomegalovirus: master manipulator of innate and adaptive immunity

Poster session – II
Boulevard Foyer
5:45pm – 7:00pm

Public Forum II - Boulevard Auditorium

7:00pm – 8:00pm  Organ Transplantation – Emerging Technologies and Improved Transplants
Moderator: David Gottlieb
Patient’s perspective: Matty Hempstalk
Panel: Jeremy Chapman, AC, Per Ljungman and Vince Emery
**Thursday 23 April, 2015**

*7:30am – 5:00pm  Registration  
Boulevard Level, Grey Street Entrance, South Bank*

**Session XIII: Innate and adaptive immune regulation  
Chair: Vincent Emery and Corey Smith**

8:30am – 9:00am  **O76 Invited Lecture – Mariapia Degli-Esposti** – Balancing antiviral immunity to avoid immunopathology

9:00am – 9:20am  **O77 Invited Lecture – Mark Wills** – Human Cytomegalovirus the paradox of immune evasion and control

9:20am – 9:40am  **O78 Klaas van Gisbergen** – Transcriptional regulation of CMV-specific CD8 T cells

9:41am – 9:53am  **O79 Marion Griessl** – Identification of extensive transcriptional activity in cytomegalovirus latency that follows stochastic patterns - A potential link to ‘memory inflation’

9:54am – 10:08am  **O80 Stephen Spector** – Cytomegalovirus specific CX3CR1 expressing CD4+ cells express high levels of IFNγ and markers of immune activation suggesting a role in increased risk for cardiovascular disease in HIV-infected persons

10:09am – 10:21am  **O81 John Miles** – Predicting T cell receptor repertoire formation against human pathogens

10:22am – 10:34am  **O82 Adriana Weinberg** – Circulating CD4+CD27-CD28- T cells represent a regulatory T cell subset specific to CMV-seropositive individuals

10:40am – 11.00am  **Morning Tea - Boulevard Foyer** – Sponsored by Miltenyi Biotec

**Session XIV: Antiviral treatment for CMV  
Chair: Deborah Spector and Klaus Freüh**

11:00am – 11:20am  **O83 Invited Lecture – Manfred Marschall** – Promising new targets for antiviral therapy of cytomegalovirus infections

11:20am – 11:40am  **O84 Invited Lecture – Sunwen Chou** – Update on CMV drug resistance

11:40am – 11:52am  **O85 Ravit Arav-Boger** – Targeting host cell functions to inhibit CMV replication - New horizon for CMV therapy
11:53am – 12:05pm  O86  Giada Frascaroli – Antigen presentation by macrophages is not inhibited by human cytomegalovirus and infected cells stimulate proliferation and activation of autologous T cells

12:06pm – 12:18pm  O87  Thomas Gardner – Development of a high-content platform for identification of novel CMV therapeutics

12:19pm – 12:31pm  O88  Mirko Trilling – Broad and potent antiviral activity of the neddylation inhibitor MLN4924

12:32pm – 12:44pm  O89  Ursula Gompels – Germline, chromosomally integrated human herpesvirus 6A and B genomes: Emergent infection, new inflammatory mediators and diverse origins

12:45pm – 12:57pm  O90  Meghan Eberhardt – RhCMV vIL-10: Playing a vital role in persistence and reinfection

1:00pm – 2:00pm  Lunch - Boulevard Foyer

**Session XV: CMV and new links to disease**
Chair: Cecilia Söderberg-Naucler and Andrew Davison

2:00pm – 2:20pm  O91  Invited Lecture – Charles Cobbs – Human cytomegalovirus immediate early proteins promote glioblastoma stemness

2:20pm – 2:40pm  O92  Invited Lecture – Paul Moss – The role of CMV in immune senescence

2:40pm – 3:05pm  Panel Discussion – CMV and Cancer: What we Need to do to Convince Sceptics
*Moderator:* Rajiv Khanna
*Panel:* Charles Cobbs, Cecilia Soderberg Naucler, Robert Kalejta and Ed Mocarski

3:05pm – 3:17pm  (O93) Andrea Schuessler - Autologous Human Cytomegalovirus-specific T-cell therapy as consolidative treatment for recurrent Glioblastoma Multiforme

3:18pm – 3:30pm  (O94) David Abate - Strong cell-mediated immune response to human cytomegalovirus (CMV) is associated with fetal infection in primarily infected pregnant women

3:31pm – 3:43pm  (O95) Corey Smith - Combining Immune monitoring and adoptive T cell therapy for the treatment of drug-resistant CMV disease is solid-organ transplant patients

3:45pm – 4:00pm  Afternoon Tea - Boulevard Foyer
### Session XVI: Immune-based therapies for CMV-associated diseases

**Chair:** Stipan Jonjic and Andrea Schuessler

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<tr>
<td>4:00pm – 4:20pm</td>
<td><strong>O96 Invited Lecture – David Gottlieb</strong> – Reconstituting immunity to CMV and other pathogens after allogeneic stem cell transplant using donor-derived and third party antigen specific T cells</td>
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<td>4:20pm – 4:40pm</td>
<td><strong>O97 Invited Lecture – Klaus Früh</strong> – Development of cytomegalovirus as a vaccine vector</td>
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<td>4:40pm – 4:52pm</td>
<td><strong>O98 Anne Halenius</strong> – The MHC class I ligandome of HCMV infected cells reveals presentation of numerous immunogenic peptides</td>
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<td>4:53pm – 5:05pm</td>
<td><strong>O99 Emmanuel Wiertz</strong> – CRISPR/Cas9-mediated genome editing of human cytomegalovirus impairs virus replication</td>
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### Valedictory lectures

**Chair:** Rajiv Khanna

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<tr>
<td>5:10pm – 5:30pm</td>
<td><strong>Ed Mocarski</strong> – Summary and future perspectives on the molecular pathogenesis of CMV infection</td>
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<td>5:30pm – 5:50pm</td>
<td><strong>William Rawlinson</strong> – Meeting summation and future clinical perspectives in congenital and other CMV</td>
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### Conference Dinner

**Plaza Terrace Room**
**Brisbane Convention and Exhibition Centre**

**7:00pm – 10:30pm**

**Dinner speech:** Stanley Plotkin

**Special entertainment event**

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Friday 24 April, 2015

Visit to Lone Pine Sanctuary
9:00am – 2:00pm

Aussie BBQ lunch at Lone Pine Sanctuary

Buses leave from Brisbane Convention and Exhibition Centre
at 8:45am