# Thursday 3 April 2014

## Big insights: Harnessing the power of health data

### 7.30am
Registration desk opens

### 9.00am
**Conference Official Opening**
- Introduction and welcome
  - **Susan Walker** Chair, Big Data 2014 Conference

### 9.10am
**Welcome to country**
- **Ron Jones** Wurundjeri Tribe Elder

### 9.15am
**Big data: Big opportunities, big thinking. Insights from Google**
- **Angelo Joseph** Head of Sales Engineering, Google Enterprise

### 9.45am
**The internet of everything: Building health and wellness into the fabric of the community**
- **Dr Brendan Lovelock** Health Practice Lead, Cisco

### 10.15am
**Discussion**

### 10.30am
Morning tea and exhibition

### 11.00am
**Putting together a bioinformatics team: 2014 compared with 1997**
- **Prof Terry Speed** Head, Division of Bioinformatics, Walter and Eliza Hall Institute of Medical Research
  - **Chair:** **Dr Louise Schaper**

### 11.20am
**Engaging doctors with (big) data – why is it hard?**
- **A/Prof Christine Jorm** Associate Dean Professionalism, Sydney Medical School

### 11.40am
**Workforce panel** facilitated by **Dr Louise Schaper** CEO, HISA
- **Julie Brophy** Manager Health Information Workforce Strategy, Health Workforce Branch, Department of Health, Vic;
- **A/Prof Christine Jorm** Associate Dean Professionalism, Sydney Medical School;
- **Prof Terry Speed** Head, Division of Bioinformatics, Walter and Eliza Hall Institute of Medical Research

### 12.45pm
Lunch and exhibition

### 1.45pm - 3.15pm
**Concurrent 1**
- **Scientific Stream 1**
  - **Chair:** **Prof Svetha Venkatesh**

#### 1.45pm
**Text mining for lung cancer cases over large patient admission data**
- **Dr Lawrence Cavedon** RMIT University

#### 2.03pm
**Causality driven data integration for adverse drug reaction discovery**
- **Dr Chen Wang** CSIRO

#### 2.21pm
**Big insights into patient flow**
- **Dr Sarah Dods** CSIRO and **Dr Sankalp Khanna** The Australian E-Health Research Centre, CSIRO

#### 2.39pm
**Enhancing diagnostics for invasive Aspergillosis using machine learning**
- **Simone Romano** University of Melbourne

#### 2.57pm
**Modeling of time series health data using Dynamic Bayesian Networks: An application to predictions of patient outcomes after multiple surgeries**
- **Xiongcai (Peter) Cai** Centre of Health Informatics, The University of New South Wales

### 3.15pm
Afternoon tea and exhibition

### 3.45pm
**Debate Proposition**
- To realise and harvest the potential for big data to improve healthcare delivery and outcomes we need open data

#### Facilitator
- **Alison Choy Flannigan** Partner, Health, Aged Care and Life Sciences, Holman Webb Lawyers

#### Debaters
- **Dr Tim Churches** SURE Epidemiologist and Technical Advisor, Sax Institute; **Peter Croll CEO, Peter Croll and Associates**; **Jessica Dean** President, Australian Medical Students’ Association; **Emma Hossack** President, International Association of Privacy Professionals; **A/Prof Trish Williams** School of Computer and Security Science, Edith Cowan University; **Prof Ingrid Winship** Executive Director of Research, Melbourne Health

### 5.00pm
Launch of HISA Privacy Guideline

### 5.10pm
Day one concludes

### 5.10 - 6.10pm
Networking Reception
### Friday 4 April 2014

#### Big insights: Harnessing the power of health data

<table>
<thead>
<tr>
<th>Time</th>
<th>Session</th>
</tr>
</thead>
<tbody>
<tr>
<td>7.30am</td>
<td>Registration desk opens</td>
</tr>
</tbody>
</table>
| 9.00am | **Payer perspective (Insurer): Big data analytics to understand and influence human behaviour**<br>Dr Bern Shen, Chief Medical Officer, HealthCrowd, USA  
Chair: Dr Paul Cooper |
| 9.30am | **Transforming information capture and decision making**<br>Dr David Hansen, CEO, The Australian E-Health Research Centre, CSIRO |
| 10.00am | **Health Hack 101: An introduction to this brave new world**<br>Dr Maia Sauren, ThoughtWorks Australia |
| 10.10am | Discussion                                                             |
| 10.25am | Morning tea and exhibition                                              |
| 10.55 - 12.25pm | **Concurrent 3**  
Scientific Stream 2  
Clinical genomics  
Identification of novel therapeutics for complex diseases from genome-wide association data<br>Mani Grover, Deakin University  
Bedside data capture - combining patient management and research<br>Kate Birch, University of Melbourne  
Personalised cloud-computed genomics at health-system-relevant scale<br>Dr Denis Bauer, CSIRO  
Clinical data hub for patient cohort selection<br>Dr Suman Sedai, IBM Research Australia  
Resolving ambiguity in genome assembly using high performance computing<br>Mahtab Mirmomeni, IBM Research Australia  
Data driven rapid insights into population health status and needs<br>Dr Peter Del Fante, HealthFirst Network  
Implementing a clinical genomics infrastructure to sequence 18,000 human genomes per year<br>Dr Liviu Constantinescu, Garvan Institute of Medical Research  
Data linkage and visualisation: Improving data quality for audit and research<br>Dr Leon Heffer, BioGrid Australia |
| 12.25pm | Lunch and exhibition                                                    |
| 1.25 - 2.55pm | **Concurrent 5**  
Scientific Stream 3  
Knowledge from data  
Spatio-temporal visualisation of disease incidence and respective intervention strategies<br>Dr Priscilla Rogers, IBM Research Australia  
What is ‘little data’ – an introduction to clinical data models and archetypes<br>Dr Heather Leslie and Dr Hugh Leslie, Ocean Informatics  
HealthMap: A visual platform for patient suicide risk review<br>Prof Svetla Venkatesh, Deakin University  
International approaches to standardisation and collaboration around data models, including CIMI and openEHR<br>Norm Good, CSIRO  
Health informatics visualisation engine: HIVE<br>Prof Svetha Venkatesh, Deakin University  
Clinicians and non-technical domain experts lead this approach<br>Dr Peter Del Fante, HealthFirst Network  
Classification of data and activities in self-quantification systems<br>Manal Almalki, University of Melbourne  
Getting little data ‘right’ supports better quality big data<br>Dr Heath Leslie and Dr Hugh Leslie, Ocean Informatics  
Parent perspectives on the secondary use of birth cohort data<br>Dr Kiran Pohar Manhas, University of Calgary (CANADA)  
Data linkage and visualisation: Improving data quality for audit and research<br>Dr Leon Heffer, BioGrid Australia |
| 2.55pm | Afternoon tea and exhibition                                            |
| 3.25pm | **Executive perspective**<br>A/Prof Andrew Way, CEO, Alfred Health      |
| 3.55pm | **Research perspective**<br>Dr Mirana Ramadass, Group Leader in Systems Developmental Biology, Australian Regenerative Medicine Institute |
| 4.25pm | **Thank you and closing remarks**<br>Susan Walker, Chair, Big Data 2014 Conference |
| 4.40pm | Conference concludes                                                   |