



**Day 1 – Tuesday 3 May 2016**

**8.00am** Conference Opening & Welcome to Country

**Opening Keynotes – Big Data and Precision Medicine**

**Professor Atul Butte**, Director, Institute for Computational Health Sciences, University of California, USA  
*Data-Driven Precision Medicine*

**Dr David Dembo**, General Manager, GE Healthcare Solutions, Australia & New Zealand  
*Big Data Health Solutions for Medicine*

**Morning Tea**

**Symposia – Big Data and Application to Precision Medicine**

**Professor David Thomas**, Director, Kinghorn Cancer Centre and Head, Cancer Division, Garvan Institute of Medical Research, Sydney, Australia  
*The Role of Genomics in Precision Oncology*

**Dr Nic Waddell**, Head, Medical Genomics, QIMR/Berghofer Institute, Brisbane, Australia  
*Medical Genomics and Human Cancer*

**Dr Michael Winlo**, Palantir Technologies, USA  
*Big Data Solutions for Medicine*

**Professor Eric Moses**, Director, Centre for Genetic Origins of Health & Disease, Curtin / UWA Perth  
*A Reproductive Slant on Genome-Wide Association Studies, Big Data and Genomics for Clinical Medicine*

*Highlight on Local Researchers – Abstract Presentation*

*15 Minute Presentation*

**12.00-1.00pm** Lunch – Presentation by Professor Anne Kelso, CEO NHMRC

**Plenary Session – Precision Medicine**

**Professor David Virshup**, Director, Cancer and Stem Cell Biology, Duke-NUS Graduate Medical School, Singapore  
*Precision Medicine and Oncology*

**Dr James Miser**, Chief Medical Information Officer, Bumrungrad International Hospital, Thailand  
*IBM Watson, Artificial Intelligence and Oncology*

**Afternoon Tea**

**Symposia – Precision Medicine, Big Data and Informatics**

**Dr Sarah-Jane Dawson**, Head, Molecular Biomarkers and Translational Genomics Laboratory, Peter MacCallum Cancer Centre, Melbourne, Australia  
*Precision Medicine, Biomarkers and Oncology*

**Professor Michael Rossbach**, Vela Diagnostics,  
*Using Genomic Technology to Provide Diagnostic Solutions – Redefining Molecular Diagnostics and Precision Medicine*

**Dr David Hansen**, CEO Australian e-Health Research Centre, CSIRO, Adelaide, Australia  
*Integrating Digital Technologies into Medicine*

**Associate Professor David Glance**, Head, UWA Centre for Software Practice, Perth, Australia &  
**Professor Simone Pettigrew**, Distinguished Research Professor, School of Psychology, Curtin, Perth  
*Using the Technology to Address Key Questions in Cancer Prevention*

*Highlight on Local Researchers – Abstract Presentation*

*15 Minute Presentation*

**5.00pm** Conference Proceedings for the Day Concludes



## Day 2 – Wednesday 4 May 2016

<b>8.00am</b>	<b>Plenary - Imaging</b>
	<p><b>Dr Joseph Schmitt</b>, Former Vice President, Advanced Technology, St Jude Medical, Minnesota, USA <i>Optical Coherence Tomography and Cardiac Disease</i></p> <p><b>Professor Zoltan Takats</b>, Analytical Chemistry, Imperial College London, UK <i>Mass Spectrometer Imaging and Breast Cancer</i></p>
	<b>Morning Tea</b>
	<b>Symposia – Imaging</b>
	<p><b>Dr Nicolas Plachta</b>, Principal Investigator, Institute of Molecular &amp; Cell Biology, Agency for Science, Technology &amp; Research (A*STAR), Singapore <i>Photoactivatable Fluorescence Correlation Spectroscopy</i></p> <p><b>Professor David Sampson</b>, Head, Centre for Microscopy, Characterisation and Analysis, UWA, Perth, Australia <i>Microscope in a Needle and Other Optics for Addressing Issues such as Cancer Surgical Margin</i></p> <p><b>Associate Professor Fred Chen</b>, Head of Research, Ocular Tissue Engineering Laboratory, Lions Eye Institute, Perth, Australia <i>Novel Optical Coherence Tomography Approaches in the Eye</i></p> <p><b>Dr Barry Doyle</b>, Head, Vascular Engineering Laboratory, UWA, Perth, Australia <i>Imaging the Vasculature with New Technologies</i></p> <p><i>Highlight on Local Researchers – Abstract Presentation</i> <span style="float: right;"><b>15 Minute Presentation</b></span></p>
<b>12.00-1.30pm</b>	<b>Lunch Poster Presentations</b>
	<b>Plenary – Imaging</b>
	<p><b>Professor Carolyn Mountford</b>, CEO Translational Research Institute, University of Queensland, Brisbane, Australia <i>Magnetic Resonance Imaging Spectroscopy and Human Imaging</i></p> <p><b>Dr Elizabeth Sutton</b>, Radiologist, Memorial Sloan Kettering Cancer Centre, New York, USA <i>Magnetic Resonance Imaging Advances in Breast Cancer Diagnosis and Treatment</i></p>
	<b>Afternoon Tea</b>
	<b>Symposia – Imaging</b>
	<p><b>Professor Rodney Hicks</b>, Director Cancer Imaging, Peter MacCallum Cancer Centre, Melbourne, Australia <i>Experience with Gallium 68 DOTA-COterotide PET/CT and Peptide Radionuclide Therapy in Cancer</i></p> <p><b>Dr Daniel Häusermann</b>, Principal Scientist – Imaging and Medical Therapy, Australian Synchrotron, Melbourne, Australia <i>Images from the Synchrotron in Melbourne – The Sky is the Limit</i></p> <p><b>Assistant Professor Juliana Hamzah</b>, Laboratory Head, Targeted Drug Delivery, Imaging and Therapy, Harry Perkins Institute of Medical Research, Perth, Australia <i>New Methods of Imaging the Vascular Networks</i></p> <p><b>Dr Brendan Kennedy</b>, Senior Research Fellow, School of Electrical, Electronic and Computer Engineering, UWA, Perth, Australia <i>Using Elastography Imaging in the Diagnosis of Breast Cancer</i></p> <p><i>Highlight on Local Researchers – Abstract Presentation</i> <span style="float: right;"><b>15 Minute Presentation</b></span></p>
<b>5.00pm</b>	<b>Conference proceedings for the day concludes</b>
<b>7.00pm</b>	<b>CONFERENCE DINNER</b>
	<p><b>Welcome Address and Presentations</b> <b>Dr Chris Smith</b> – The Naked Scientist Music performance by <b>WAAPA and The Specialists</b></p>



**Day 3 – Thursday 5 May 2016**

**8.00am Plenary – Bioengineering and Medicine: New Horizons**

**Professor Melissa Little**, Group Leader of Kidney Development, Disease and Regeneration, Murdoch Children’s Research Institute, Melbourne  
*Generating a Human Kidney*

**Assistant Professor Sean Murphy**, Wake Forest Institute for Regenerative Medicine, North Carolina, USA  
*3D-Printing Kidneys: The Present and Future*

**Morning Tea**

**Symposia – Bioengineering and Medicine: Pushing the Boundaries**

**Dr Robert Chapman**, Vice-Chancellors Postdoctoral Research Fellow, University of New South Wales, Sydney, Australia  
*Nanotechnology Delivery Systems and Human Medicine*

**Professor Leslie Yeo**, Chemical Engineering, RMIT, Melbourne, Australia  
*A New Use of Sound Waves to Enhance Stem Cell and Drug Delivery*

**Dr Alan Kop**, Department of Medical Physics, Royal Perth Hospital, Perth, Australia  
*3D Printing and Stem Cells in Skull Regeneration*

**Dr Marc Coghlan**, Prince of Wales Hospital, NSW  
*3D Printing Titanium for Human Replacement of Bony Parts*

**Dr Cathal O’Connell**, ARC Centre of Excellence for Electromaterials Science, Intelligent Polymer Research Institute, Innovation Campus, University of Woollongong, NSW, Australia  
*Development of the Biopen: A Handheld Device for Surgical Bioprinting*

**Professor Ming Hao Zheng**, UWA, Orthocell, Perth, Australia  
*Bioengineering of Cartilage and Tendon: Translating the Research Findings into Clinical Outcomes*

*Highlight on Local Researchers – Abstract Presentation*

*15 Minute Presentation*

**12.00-1.00pm Lunch Presentation by Andrew Walshe from Redbull – High Performance – How to Achieve It**

**Plenary – New Technologies and Biomedicine**

**Professor Deepak Svrinasta**, Pediatric cardiologist, USCF School of Medicine, San Francisco, USA  
*Transforming Fibroblasts into Cardiomyocytes*

**Professor Lyndon da Cruz**, Consultant Ophthalmic Surgeon, Moorfields Eye Hospital, London, UK  
*Stem Cell Transplants and Human Vision*

**Afternoon Tea Presentation of Poster Prizes**

**Symposia – New Technologies and Biomedicine**

**Professor Kathryn North**, Institute Director, Murdoch Children’s Research Institute, Melbourne, Australia  
*Precision Medicine and the NHMRC Genomic Initiative*

**Professor Paul Thomas**, Head, Laboratory of Developmental Genetics, School of Biological Sciences, University of Adelaide, Australia  
*CRISPR/Cas9 Mice: Opening New Opportunities for Preclinical Models*

**Professor Susan Clark**, NHMRC Senior Principal Research Fellow, Garvan Institute of Medical Research, Sydney, Australia  
*Methylome Profiling and COBRA-Seq*

**Dr Timothy Mercer**, Lab Head - Transcriptomic Research, Garvan Institute, Sydney Australia  
*RNA Capture-Seq and Genome Informatics*

**Professor Steve Wilton**, WA Neurological Research Institute, Murdoch University, Perth, Australia  
*Using Exon Skipping to Treat Human Disease*

*Highlight on Local Researchers – Abstract Presentation*

*15 Minute Presentation*

**5.00pm Formal Conference Close**