


Day 1 – Tuesday 3 May 2016

8.00 - 8.35am	Conference Opening & Welcome to Country	Co-Chairs: Peter Leedman & Margaret Jones
8.00 - 8.10am	Welcome to Country by Professor Len Collard , Australian Research Council, Chief Investigator, School of Indigenous Studies, University of Western Australia, Perth, Australia (10min)	
8.10 - 8.25am	Conference Chairs Professor Peter Leedman PhD, FRACP, FAHMS , Director, Harry Perkins Institute of Medical Research & Professor Margaret Jones PhD GAICD , Director, Office of Research and Innovation, Edith Cowan University (15min)	
8.25 - 8.35am	Conference Opening by The Hon John Day MLA , Minister for Health; Culture and the Arts (10min)	
8.35 - 10.00am	Opening Keynotes – Big Data and Precision Medicine	Co-Chairs: Peter Leedman & Margaret Jones
8.35 - 9.15am	Professor Atul Butte , Director, Institute for Computational Health Sciences, University of California, California, USA (40min) <i>Data-Driven Precision Medicine</i>	
9.15 - 9.55am	Dr David Dembo , General Manager, GE Healthcare Solutions, Sydney, Australia & Auckland, New Zealand (40min) <i>Big Data Health Solutions for Medicine</i>	
10.00 - 10.30am	Morning Tea	
10.30 - 12.00pm	Symposia – Big Data and Application to Precision Medicine	Co-Chairs: Alistair Forrest & Elin Gray
10.30 - 10.55am	Professor David Thomas , Director, Kinghorn Cancer Centre and Head, Cancer Division, Garvan Institute of Medical Research, Sydney, Australia (25min) <i>The Role of Genomics in Precision Oncology</i>	
10.55 - 11.20am	Dr Nic Waddell , Head, Medical Genomics, QIMR/Berghofer Institute, Brisbane, Australia (25min) <i>Genomics and Human Cancer</i>	
11.20 - 11.45am	Dr Michael Winlo , CEO, Linear Clinical Research, Harry Perkins Institute of Medical Research, Perth, & Former Health Team Leader, Palantir Technologies, United States of America (20min) <i>Big Data Solutions for Medicine</i>	
11.45 - 12.00pm	Highlight on Local Researchers - 15 Minute Presentation Dr Gina Ravenscroft , Harry Perkins Institute <i>Identifying Disease Genes and Novel Genotype-Phenotype Correlations for Fetal Akinesias</i>	
12.00 - 12.15pm	Lunch (return with food to tables for lunch presentation) (15min)	Chair: Robyn Owens
12.15 - 12.45pm	Presentation by Professor Anne Kelso , Chief Executive Officer, National Health and Medical Research Council, Canberra, Australia (30min)	
1.00 - 2.20pm	Plenary Session – Precision Medicine	Co-Chairs: Lyn Beazley & Jonathan Carapetis
1.00 - 1.40pm	Professor David Virshup , Director, Cancer and Stem Cell Biology, Duke-NUS Graduate Medical School, Singapore (40min) <i>Wnt Pathway targeting by Precision Medicine</i>	
1.40 - 2.20pm	Dr James Miser , Chief Medical Information Officer, Bumrungrad International Hospital, Wattana, Thailand (40min) <i>IBM Watson, Artificial Intelligence and Oncology</i>	
2.20 - 2.45pm	Afternoon Tea	
2.45 - 4.45pm	Symposia – Precision Medicine, Big Data and Informatics	Co-Chairs: Raelene Endersby & Jim Codde
2.45 - 3.15pm	Dr Sarah-Jane Dawson , Head, Molecular Biomarkers and Translational Genomics Laboratory, Peter MacCallum Cancer Centre, Melbourne, Australia (30min) <i>Precision Medicine, Biomarkers and Oncology</i>	
3.15 - 3.45pm	Professor Michael Rossbach , Vice President Global Pharma Partnering, Vela Diagnostics, Singapore (30min) <i>Using Genomic Technology to Provide Diagnostic Solutions – Redefining Molecular Diagnostics and Precision Medicine</i>	
3.45 - 4.15pm	Dr David Hansen , Chief Executive Officer, Australian e-Health Research Centre, CSIRO, Adelaide, Australia (30min) <i>Integrating Digital Technologies into Medicine</i>	
4.15 - 4.45pm	Professor Simone Pettigrew , Distinguished Research Professor, School of Psychology, Curtin University, Perth, Australia & Associate Professor David Glance , Head, University of Western Australia Centre for Software Practice, Perth, Australia (30min) <i>Using the Technology to Address Key Questions in Cancer Prevention</i>	
4.45 - 5.00pm	Highlight on Local Researchers - 15 Minute Presentation Dr Abha Chopra , Murdoch University <i>Analysis and Visualization Tools for NGS Sequence Data</i>	
5.00pm	Conference Proceedings for the Day Concludes	


Day 2 – Wednesday 4 May 2016

8.00 - 8.10am	Conference Opening	
8.10 - 9.30am	Plenary - Imaging	Co-Chairs: David Sampson & Sue Fletcher
8.10 - 8.50am	Professor Zoltan Takats , Professor of Analytical Chemistry, Imperial College London, United Kingdom (40min) <i>Mass Spectrometer Imaging and Breast Cancer</i>	
8.50 - 9.30am	Dr Nicolas Plachta , Principal Investigator, Institute of Molecular & Cell Biology, Agency for Science, Technology & Research (A*STAR), Singapore (40min) <i>Seeing How Mammalian Life Starts: Quantitative Imaging in Mouse Embryos</i>	
9.30 - 9.50am	Morning Tea	
9.50 - 12.00pm	Symposia – Imaging	Co-Chairs: Robert Trengrove & Jenny Rodger
9.50 - 10.20am	Associate Professor Peter Barlis , Consultant & Interventional Cardiologist, and Honorary Principal Fellow, Melbourne Medical School & School of Engineering (30min) <i>Optical Coherence Tomography Imaging to Improve Our Understanding of Coronary Artery Disease</i>	
10.20 - 10.50am	Professor David Sampson , Head, Optical and Biomedical Engineering Laboratory and Director, Centre for Microscopy, Characterisation & Analysis, University of Western Australia, Perth, Australia (30min) <i>Microscope in a Needle and Other Optics for Addressing Issues such as Cancer Surgical Margin</i>	
10.50 - 11.20am	Associate Professor Fred Chen , Head of Research, Ocular Tissue Engineering Laboratory, Lions Eye Institute, Perth, Australia (30min) <i>Novel Optical Coherence Tomography Approaches in the Eye</i>	
11.20 - 11.45am	Dr Barry Doyle , Head, Vascular Engineering Laboratory, University of Western Australia, Perth, Australia (25min) <i>Computational Modelling of the Vasculature – From Basic Understanding to Treating Disease</i>	
11.45 - 12.00pm	Highlight on Local Researchers – 15 Minute Presentation Dr Kirk Feindel , University of Western Australia <i>Preclinical Imaging at the UWA Centre for Microscopy</i>	
12.00 - 1.30pm	Lunch	
	Poster Presentations	
1.30 - 2.50pm	Plenary – Imaging	Co-Chairs: Deirdre Coombe & Michael Bynevelt
1.30 - 2.10pm	Professor Carolyn Mountford , Chief Executive Officer and Director of Research, Translational Research Institute, Brisbane, Australia (40min) <i>MR to Evaluate Deregulation in Human Disease and Damage</i>	
2.10 - 2.50pm	Dr Elizabeth Sutton , Radiologist, Memorial Sloan Kettering Cancer Centre, New York, USA (40min) <i>Magnetic Resonance Imaging Advances in Breast Cancer Diagnosis and Treatment</i>	
2.50 - 3.05pm	Afternoon Tea	
3.05 - 5.00pm	Symposia – Imaging	Co-Chairs: Delia Nelson & Julian Heng
3.05 - 3.35pm	Professor Rodney Hicks , Director Cancer Imaging, Peter MacCallum Cancer Centre, Melbourne, Australia (30min) <i>Experience with Gallium 68 DOTA-COterotide PET/CT and Peptide Radionucleotide Therapy in Cancer</i>	
3.35 - 4.05pm	Dr Daniel Häusermann , Principal Scientist Imaging and Medical Therapy, Australian Synchrotron, Melbourne, Australia (30) <i>Images from the Synchrotron in Melbourne – The Sky is the Limit</i>	
4.05 - 4.25pm	Assistant Professor Juliana Hamzah , Laboratory Head, Targeted Drug Delivery, Imaging and Therapy, Harry Perkins Institute of Medical Research, Perth, Australia (20min) <i>New Methods to Improve Diagnostic and Therapeutic Imaging</i>	
4.25 - 4.45pm	Dr Brendan Kennedy , Senior Research Fellow, School of Electrical, Electronic and Computer Engineering, University of Western Australia, Perth, Australia (20min) <i>Using Elastography Imaging in the Diagnosis of Breast Cancer</i>	
4.45 - 5.00pm	Highlight on Local Researchers – 15 Minute Presentation Dr Carlos Aya-Bonilla , Edith Cowan University <i>Developing Strategies for the Detection of Circulating Tumour Cells (CTCs) from Metastatic Melanoma Patients Using Spiral Microfluidic Devices</i>	
5.00pm	Conference proceedings for the Day Concludes	
6.30 - 10.30pm	CONFERENCE DINNER	
	Welcome Address and Presentations Dr Chris Smith , The Naked Scientist, Cambridge University, United Kingdom and Sir Walter Murdoch Distinguished Adjunct Professor, Murdoch University, Australia & Professor Kathryn North , Institute Director, Murdoch Children's Research Institute, Melbourne, Australia Music Performance by Western Australian Academy of Performing Arts (WAAPA) and The Specialists	


Day 3 – Thursday 5 May 2016

8.00 - 8.05am	Conference Opening	
8.05 - 9.45am	Plenary – Bioengineering and Medicine: New Horizons	Co-Chairs: John Challis & Pilar Blancafort
8.05 - 8.45am	Professor Melissa Little , Group Leader of Kidney Development, Disease and Regeneration, Murdoch Children's Research Institute, Melbourne, Australia (40min) <i>Generating a Kidney from Human Pluripotent Stem Cells: Where to from Here?</i>	
8.45 - 9.20am	Dr Robert Chapman , Vice-Chancellors Postdoctoral Research Fellow, University of New South Wales, Sydney, Australia (40) <i>Nanomaterials for Ultrasensitive Biosensing and Regenerative Medicine</i>	
9.20 - 9.45am	Dr Marc Coughlan , Neurosurgeon, Coastal Neurosurgery, Sydney, Australia (25min) <i>3D Printing Titanium for Human Replacement of Bony Parts</i>	
9.45 - 9.55am	Presentation of Poster Prizes	
9.55 - 10.10am	Morning Tea	
10.10 - 12.00pm	Symposia – Bioengineering and Medicine: Pushing the Boundaries	Co-Chairs: Mel Ziman & Ros Francis
10.10 - 10.35am	Professor Leslie Yeo , Chemical Engineering, RMIT University, Melbourne, Australia (25min) <i>A New Use of Sound Waves to Enhance Inhaled Drug, Gene and Stem Cell Delivery</i>	
10.35 - 10.55am	Dr Alan Kop , Biomedical Engineer, Centre for Implant Technology & Retrieval Analysis, Royal Perth Hospital, Perth, Australia <i>3D Printing and Stem Cells in Skull Regeneration (20min)</i>	
10.55 - 11.15am	Dr Cathal O'Connell , Associate Research Fellow, University of Wollongong, NSW, Australia (20min) <i>Development of the Biopen: A Handheld Device for Surgical Bioprinting</i>	
11.15 - 11.35am	Professor Ming-Hao Zheng , Associate Dean International, Faculty of Medicine, Dentistry & Health Sciences, University of Western Australia and Orthocell, Perth, Australia (20min) <i>Bioengineering of Cartilage and Tendon: Translating the Research Findings into Clinical Outcomes</i>	
11.35 - 12.00pm	Dr Sean Murphy , Assistant Professor, Wake Forest Institute for Regenerative Medicine, North Carolina, USA (25min) <i>Regenerative Medicine Technologies for the Treatment of Lung Disease</i>	
12.00 - 12.15pm	Lunch (return with food to tables for lunch presentation) (15min) Chair: Rob Newton	
12.15 - 1.00pm	Presentation by Andrew Walshe from Redbull – High Performance – How to Achieve It (45min)	
1.15 - 3.05pm	Plenary – New Technologies and Biomedicine	Co-Chairs: Ruth Ganss & Anthony Kicic
1.15 - 1.55pm	Professor Deepak Srivastava , Director, Gladstone Institute of Cardiovascular Disease and the Roddenberry Stem Cell Centre, University of California Medical Center, USA (40min) <i>Transforming Fibroblasts into Cardiomyocytes</i>	
1.55 - 2.25pm	Professor Kathryn North , Institute Director, Murdoch Children's Research Institute, Melbourne, Australia (30min) <i>Precision Medicine and the NHMRC Genomic Initiative</i>	
2.25 - 3.05pm	Professor Lyndon da Cruz , Consultant Ophthalmic Surgeon, Moorfields Eye Hospital, London, United Kingdom (40min) <i>Stem Cell Rescue of Retinal Disease</i>	
3.05 - 3.25pm	Afternoon Tea	
3.25 - 4.55pm	Symposia – New Technologies and Biomedicine	Co-Chairs: Gerard Hoyne & Pritinder Kaur
3.25 - 3.50pm	Professor Paul Thomas , Head, Laboratory of Developmental Genetics, School of Biological Sciences, University of Adelaide, Australia (25min) <i>CRISPR/Cas9 Mice: Opening New Opportunities for Preclinical Models</i>	
3.50 - 4.15pm	Professor Susan Clark , Head, Genomics and Epigenetic Division and Head, Epigenetics Research Laboratory, Garvan Institute of Medical Research, Sydney, Australia (25min) <i>Methylome Profiling: So Many Choices</i>	
4.15 - 4.35pm	Dr Timothy Mercer , Lab Head, Transcriptomic Research, Garvan Institute, Sydney, Australia (25min) <i>Genes Under the Microscope – Using Targeted Sequencing to Resolve Human Transcriptome Diversity</i>	
4.35 - 4.55pm	Professor Steve Wilton , Western Australian Neurological Research Institute, Murdoch University, Perth, Australia (20min) <i>Using Exon Skipping to Treat Human Disease</i>	
4.55 - 5.00pm	Conference Conclusion	
5.00pm	Formal Conference Close	