



Day 1 – Sunday 30 April 2017

8.30 - 9.00am	Conference Opening & Welcome to Country	
	<p>Conference Welcome: David Sampson, The University of Western Australia, ICOB2017 Chair</p> <p>Conference Opening: Brian Wilson, Princess Margaret Cancer Centre, Canada, Dennis Matthews, University of California Davis, USA and Jürgen Popp, Leibnitz Institute of Photonics, Germany</p>	
9.00 - 9.50am	Plenary Presentation	
	<p>Eugene Arthurs, PhD, CEO, SPIE – The International Society for Optics and Photonics, USA <i>Biophotonics: Sustaining the Endless Frontier</i></p>	
9.50 - 10.00am	Launch of Biophotonics.World: <i>The largest biophotonics network worldwide</i>	
10.00 - 10.30am	Morning Tea & Exhibition	
10.30 - 12.00pm	Session 1: How to Set a Big Picture Biophotonics Agenda	
	<p><i>Session Leader:</i> Laura Marcu, University of California Davis, USA</p>	
	<p><i>Speakers:</i> Stephen Boppart, University of Illinois at Urbana-Champaign, USA <i>Biophotonics Imaging at the Meso/Macro Scale: Technologies, Applications, Directions and Challenges</i></p>	
	<p>Mark Hutchinson, University of Adelaide, Australia <i>Big Biophotonics Science: Balancing the Journey and the Destination</i></p>	
	<p>Brian Wilson, Princess Margaret Cancer Centre, Canada <i>Panelist</i></p>	
	<p>Jürgen Popp, Leibniz Institute of Photonic Technology, Germany <i>Panelist</i></p>	
12.00 - 1.00pm	Lunch & Exhibition	
1.00 - 3.00pm	Session 2: In Vivo Non-Invasive Retinal Vessel and Blood Flow Imaging: Biophotonic Advances and Clinical Applications	Session 3: Tumour Margin Identification: Critiquing Technologies
	<p><i>Session Leader:</i> Fred Chen, Lions Eye Institute, Australia <i>Can Biophotonic Advances Overcome Clinical Challenges in Human Retinal Vascular Imaging?</i></p>	<p><i>Session Leader:</i> Stephen Boppart, University of Illinois Urbana Champaign, USA <i>Intraoperative Stain-Free Histopathology of Tumor Margins and the Microenvironment using Multimodal Multiphoton Imaging</i></p>
	<p><i>Speakers:</i> Andrew Metha, University of Melbourne, Australia <i>In-vivo Human Adaptive Optics Imaging of Retinal Capillary Structure and Function</i></p>	<p><i>Speakers:</i> J. Quincy Brown, Tulane University, USA <i>Mind the Gaps: An Argument for more Comprehensive Surface Sampling of Tumor Resection Margins using Advanced Microscopy</i></p>
	<p>Chandra Balaratnasingam, Lions Eye Institute, Australia <i>Optical Coherence Tomography Angiography in Ophthalmology</i></p>	<p>Christobel M. Saunders, The University of Western Australia, Australia <i>How Optical Solutions Can Solve Problems in Cancer Surgery</i></p>
		<p>Laura Marcu, University of California Davis, USA <i>Fluorescence Lifetime Techniques for Surgical Imaging, Guidance and Augmented Reality</i></p>
		<p>Esther Kho, Netherlands Cancer Institute, The Netherlands <i>Hyperspectral Imaging for Intraoperative Margin Assessment During Breast Cancer Surgery</i></p>
		<p>Camile Farah, The University of Western Australia, Australia <i>Panelist</i></p>
3.00 - 3.30pm	Afternoon Tea & Exhibition	

3.30 - 4.30pm	Session 4: Hot Posters
	<i>Session Leaders:</i> Philip Wijesinghe , The University of Western Australia and Danuta Sampson , Lions Eye Institute, Australia
	<i>Presenters:</i> Jiawen Li , University of Adelaide, Australia <i>3D printed lenses for use in miniaturised endoscopic probes</i>
	Lothar D. Lilge , University Health Network, Canada <i>Optical pre-screening in breast screening programs: Can we identify women who benefit most from limited mammography resources?</i>
	Rachel Lloyd , The University of Western Australia <i>Novel method to measure breast density in younger women</i>
	Thomas Bocklitz , University Jena, Germany <i>Non-linear multimodal imaging for disease diagnostics and treatment monitoring</i>
	Piotr Wargocki , Macquarie University <i>A simple smartphone based device towards biomedical colorimetric and fluorescent signal detection</i>
	Philipp Reineck , RMIT University <i>Near-infrared fluorescent nanomaterials for bioimaging and sensing</i>
	Stephen P. Morgan , The University of Western Australia <i>Optical fibre sensing of fragile skin</i>
	Frederique Vanholsbeeck , The University of Auckland <i>Near-real time enumeration of bacteria</i>
	Xuefei (Sherry) He , Australian National University, Australia <i>Dynamic in-vivo imaging of the mammalian vascular systems</i>
	Gerd E. Schroeder-Turk , Murdoch University <i>Sheet-like chiro-optical material designs based C Y) surfaces</i>
	Karol Karnowski , The University of Western Australia, Australia <i>Evaluation of changes in birefringence for samples subjected to various stress sources measured with polarization-sensitive OCT</i>
	Kevin Kin Man Tsia , The University of Hong Kong <i>Ultrafast laser scanning cellular microscopy by spatiotemporally encoded virtual sources</i>
	Kirill V. Larin , University of Houston, USA <i>Effect of prenatal alcohol exposure on mouse fetal brain development assessed with optical coherence tomography</i>
4.30 - 6.00pm	Poster Session
6.30 - 8.30pm	Welcome Reception at Bathers Beach House, Fremantle <i>Canapés & Beverages Provided</i> Sponsored by the Centre for Nanoscale BioPhotonics

Day 2 – Monday 1 May 2017

9.00 - 9.45am	Opening Presentation
	Stephen K Robinson , Professor & Chair, UC Davis Department of Mechanical and Aerospace Engineering and Director, UC Davis Center for Human/Robotics/Vehicle Integration and Performance (and former NASA Astronaut), USA <i>Life and Science Aboard the International Space Station</i>
9.45 - 10.00am	Discussion
10.00 - 10.30am	Morning Tea & Exhibition
10.30 - 12.00pm	Session 5: Challenges in Translation: Models to Promote Translation
	<i>Session Leader:</i> Jürgen Popp , Leibniz Institute of Photonic Technology, Germany <i>Translational Approaches in Photonics Towards Applications for Clinical Routine</i>
	<i>Speakers:</i> Dennis Matthews , University of California Davis, USA <i>The Long Road to Commercialising a Personal Blood Count Monitor</i>
	Brian Wilson , Princess Margaret Cancer Centre, Canada <i>Challenges in Clinical Translation Of Biophotonics Technologies, Exemplified by Optical Spectroscopy/Spectral Imaging</i>
	Alfredo Martinez-Coll , MTPConnect, Australia <i>MTPConnect and Its Role in Driving the Medtech and Pharmaceutical Sector in Australia</i>
12.00 - 1.30pm	Lunch & Exhibition Outreach with Stephen K Robinson and Naked Scientist Chris Smith The Optical Society Student Chapter will run outreach activities for high school students: Origami Microscope, How Safe is My Green Laser Pointer? and Seeing Beneath Your Skin with Light

1.30 - 3.00pm	Session 6: SPARK Co-Lab, Training People to Identify a Commercial Pathway for Unmet Needs	
	<i>Session Leader:</i> Peter Santa Maria , The University of Western Australia, Australia <i>Medical Device Innovation Session (Presented by SPARK Co-Lab)</i>	
	<i>Speakers:</i> Ming Yew , St John of God's Hospital, Australia and Dylan Beinart , The University of Western Australia, Australia <i>Identifying Areas of Clinical Need for Innovation</i>	
	Arjun Kaushik , The University of Western Australia, Australia and Sarah McGarry , Princess Margaret Hospital for Children and Fiona Stanley Hospital, Australia <i>How to Progress an Area of Need through to the Clinic: A Case Study of Iris Medical</i>	
	Peter Santa Maria , The University of Western Australia, Australia and Hserrn Ern Tan , Ear Science Institute of Australia <i>Successful Brainstorming</i>	
	Ming Yew , St John of God's Hospital, Australia, Dylan Beinart , The University of Western Australia, Australia, Arjun Kaushik , The University of Western Australia, Australia, Sarah McGarry , Princess Margaret Hospital for Children and Fiona Stanley Hospital, Australia, Peter Santa Maria , The University of Western Australia, Australia and Hserrn Ern Tan , Ear Science Institute of Australia <i>Brainstorming Practical Session</i>	

3.00 - 3.30pm	Afternoon Tea & Exhibition	
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3.30 - 5.30pm	Session 7: Neurophotonics	Session 8: Radical New Ideas in Biophotonics
	<i>Session Leader:</i> Anita Mahadavan-Jansen , Vanderbilt University, USA	<i>Session Leader:</i> Kishan Dholakia , University of St Andrews, Scotland
	<i>Speakers:</i> Paul Stoddart , Swinburne University of Technology, Australia <i>Pushing the Boundaries in Neuromodulation</i>	<i>Speakers:</i> Chris Xu , Cornell University, USA <i>In Vivo 3-Photon Microscopy of the Mouse Brain</i>
	Mark Hutchinson , The University of Adelaide, Australia <i>Understanding the Brain with Light</i>	Carola Thoni , Lastek <i>From Live Cell STED Superresolution to State of the Art Ultramicroscopy, New Tools for Biological Imaging</i>
		Tomasz Tkaczyk , Rice University, USA <i>Paradigm Shifts in Biomedical and Diagnostic Imaging</i>

5.30 - 6.00pm	Session Wrap-up: Working on White Papers	
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7.00 - 10.00pm	Conference Dinner & Conference Close at Little Creatures Brewery, Fremantle	
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Day 1 Science on the Swan Conference – Tuesday 2 May 2017

8.00 - 8.45am	Science on the Swan - Conference Opening & Welcome to Country	
	Welcome to Country by Dr Richard Walley OAM Welcome by Conference Co-Chairs Professor David Morrison and Professor John Callis Formal Conference Opening by The Honourable Roger Cook MLA , Deputy Premier; Minister for Health; Mental Health	
8.45 - 9.30am	Science on the Swan - Opening Keynote	
	Nobel Laureate Professor Barry Marshall AC <i>How Advances in Technology Enable Unexpected Breakthroughs in Medicine: Examples from the 2005 Nobel Prize</i>	
9.30 - 10.00am	Morning Tea & Exhibition	
10.00 - 11.40am	Science on the Swan - Session 1: ONE HEALTH: Microbiome	
	Professor Jeremy Nicholson , Head, Department of Surgery & Cancer, Imperial College, London <i>Microbiome-Host Interactions and their Healthcare Implications</i>	
	Professor Una Ryan , Biochemistry, Murdoch University, Perth <i>Lyme-Like Disease in Australia: A Tick-Borne Illness?</i>	
	Professor Katherine Kedzierska , Head, Human T cell Lab, Doherty Institute, Melbourne <i>Immunity to a New Avian Influenza Virus H7N9</i>	
	<i>Speaker Q&A</i>	
11.40 - 12.15pm	Science on the Swan - Presentation Dr Stephen K Robinson , Professor & Chair, UC Davis Department of Mechanical and Aerospace Engineering and Director, UC Davis Center for Human/Robotics/Vehicle Integration and Performance (and former NASA Astronaut), USA <i>Life and Science Aboard the International Space Station</i>	
12.15 - 1.00pm	Lunch & Exhibition	
1.30 2.30pm	ICOB - Post Conference Workshop: Biophotonics Publishing (Science on the Swan delegates welcome)	
	<i>Session Leader:</i> Eric Pepper , SPIE – The International Society for Optics and Photonics, USA – SPIE Director of Publications	
	<i>Panelists:</i> Christoph Hitztenberger , Medical University of Vienna, Austria - Biomedical Optics Express	
	Jürgen Popp , Leibnitz Institute of Photonics, Germany – Journal of Biophotonics	
	Martin Delahunty , Springer Nature, United Kingdom - Global Director, Nature Partner Journals	
2.45 - 3.00pm	Afternoon Tea	