

8:30	REGISTRATIONS OPEN		
9:00	<p><i>WELCOME:</i> Professors Justin Gooding, Maria Kavallaris &amp; Tom Davis  Australian Centre for NanoMedicine (UNSW), ARC Centre of Excellence in Convergent Bio-Nano Science and Technology (Monash)</p>		
9:15	<p><i>OPENING:</i> Professor Hugh Durrant-Whyte, NSW Chief Scientist and Engineer</p>		
9:30	<p><i>PLENARY:</i> Prof Milica Radisic - University of Toronto (Canada) - Towards Organs-on-a-Plate and Injectable Tissues  <i>CHAIR:</i> Prof Benjamin Thierry    <i>ROOM:</i> Water@Pier One</p>		
10:10	MORNING TEA		
SESSION Chair Room	DRUG DELIVERY  Water@Pier One	BIOACTIVE MATERIALS  Dawes Point 1&2	SENSORS & IMAGING  Dawes Point 3&4
10:40 Keynote	A/Prof Jonathan Lovell - University at Buffalo (USA) - Nanoscale Formulations of Tetrapyrroles for Imaging and Therapy	Prof David Lynn - University of Wisconsin - Madison (USA) - Building Bioactivity into 'Slippery' Liquid-Infused Porous Surfaces	A/Prof Kanyi Pu - Nanyang Technological University (Singapore) - Molecular Afterglow Imaging for Cancer Detection, Drug Screening and Imaging Guided Therapy
11:10 Invited	Dr Francesca Cavaliere - University of Melbourne (Australia) - Sono-Formulation of Anticancer Drugs into Nanodrugs	Dr Carla Meledandri - University of Otago (NZ) - Silver Nanocomposite Materials as Antimicrobial Agents for Dental Application	A/Prof Olga Shimoni - University of Technology Sydney (Australia) - Tracking of Single Nanoparticles in Living Cells
11:30 Invited	Prof Huabing Chen - Soochow University (China) - Photoactive Nanoparticles for Cooperative Cancer Therapy	Prof Vipul Bansal - RMIT University (Australia) - Biomimetic Nanozymes as Promising Photo-Activatable Antimicrobial Agents and Pro-Drug Therapies	Prof Peng Mi - Sichuan University (China) - Nanoparticles with pH-triggered contrast amplification for precision tumor imaging and therapy
11:50 Oral	Dr Ernest Moles - Children's Cancer Institute (Australia) - Bispecific Antibody-Targeted Combinatorial Nanotherapeutics for High-Risk Acute Lymphoblastic Leukaemia Chemotherapy	Dr Yuhuan Li - Monash University (Australia) - Thiol-activated H <sub>2</sub> S Releasing Polymer for Reducing the Generation of Oxidative Stress	Dr Simon Corrie - Monash University (Australia) - Reagentless Biosensors for 1-Step Detection of Cardiac Troponin-I
12:10	LUNCH		
1:10	<p><i>PLENARY:</i> Prof Alan Rowan - Australian Institute for Bioengineering and Nanotechnology (Australia) -  <i>CHAIR:</i> Prof Tom Davis    <i>ROOM:</i> Water@Pier One</p>		
SESSION Chair Room	DRUG DELIVERY  Water@Pier One	BIOACTIVE MATERIALS  Dawes Point 1&2	SOCIAL ASPECTS & REGULATORY A/Prof Matthew Kearns Dawes Point 3&4
1:55 Keynote	Prof Magdalena Plebanski - RMIT University (Australia) - Superparamagnetic Iron Oxide Nanoparticles with Natural Non-Inflammatory Surface Coatings for Diverse Biological Applications	Prof Michael Roberts - University of South Australia (Australia) - Topical Absorption and Safety of Nanomaterials Applied to Human Skin	Prof Rachel Ankeny - University of Adelaide (Australia) - Animal Models in Biomedicine: Past, Present, and Future Directions
2:25 Invited	Prof Yu Chen - Chinese Academy of Sciences (China) - Energy-Converting Biomaterials and Nanomedicine	Prof Jinming Hu - University of Science and Technology of China (China) - Photo-Triggered Localized Nitric Oxide Release from Polyprodrug Vesicles for Corneal Wound Healing	Prof Venni Venkata Krishna - UNSW Sydney (Australia) -
2:45 Invited	Dr Jonathan Choi - Chinese University of Hong Kong (China) - Morphological Diversity, Protein Adsorption, and Cellular Uptake of Polydopamine-Coated Gold Nanoparticles	A/Prof Fangyuan Li - Zhejiang University (China) - NIR-Triggered Tumor-Selective Photodynamic Therapy Using Upconversion Nanoparticle Based Nanoassemblies	Dr Declan Kuch - UNSW Sydney (Australia) - The EPR Effect Controversy: The View From A Science-Sociology Collaboration
3:05	AFTERNOON TEA		
SESSION Chair Room	DRUG DELIVERY  Water@Pier One	BIOACTIVE MATERIALS  Dawes Point 1&2	BIONANO INTERACTIONS & NANOTOXICOLOGY  Dawes Point 3&4
3:40 Keynote	A/Prof Ke Zhang - Northeastern University (USA) - Making Oligonucleotides Better Biopharmaceuticals with Brush Polymers	Dr Nicholas Stephanopoulos - Arizona State University (USA) - Hybrid Polypeptide-DNA Nanomaterials for Biomedicine	Prof Irene Yarovsky - RMIT University (Australia) - Biofouling Resistance: Role of Nanostructure, Dynamics & Hydration
4:10 Oral	Dr Andrew Care - Macquarie University (Australia) - Bioengineering a Protein Nanocage to Disrupt the Unique Metabolic Properties of the Childhood Cancer Neuroblastoma	Dr Saimon Moraes Silva - Swinburne University (Australia) - Stable Antifouling Surfaces based on Lubricin	Prof Stephen Kent - University of Melbourne (Australia) - Self-assembling Protein Nanoparticle Influenza Vaccines Enhance Generation of Antibody Immunity in the Lymph Nodes
4:30 Oral	Dr Sarah Shigdar - Deakin University (Australia) - Targeted Drug Delivery Reduces Systemic and Brain Metastases	Ms Song Gao - UNSW Sydney (Australia) - Biocatalytic Frameworks with Reversible pH-Gated Speed Regulation for Smart Micromotors	Dr Sara Romanazzo - UNSW Sydney (Australia) - Biomimetic Porous Calcium Phosphate Nanoparticles for Treatment of Bone Cancer
6:30 - 9:30	CONFERENCE DINNER - OCEANIC BALLROOM		

## DRAFT Program

TUESDAY, 25TH JUNE 2019

8:30	REGISTRATIONS OPEN		
9:00	<p><i>PLENARY:</i> Prof Joseph Wang - University of California, San Diego (USA) - Biomedical Nanorobots: a 'Fantastic Voyage'</p> <p><i>CHAIR:</i> Prof Justin Gooding    <i>ROOM:</i> Water@Pier One</p>		
SESSION Chair Room	<p>DRUG DELIVERY</p> <p>Prof Cyrille Boyer</p> <p>Water@Pier One</p>	<p>BIONANO INTERACTIONS &amp; NANOTOXICOLOGY</p> <p>Dr Kristopher Kilian</p> <p>Dawes Point 1&amp;2</p>	<p>SENSORS &amp; IMAGING</p> <p>A/Prof Kris Thurecht</p> <p>Dawes Point 3&amp;4</p>
9:45 Keynote	Prof Didier Gimes - Institute of Radical Chemistry (France) - Synthesis of Degradable Block Copolymers a Bio-Implants for Central Nervous System Repair	A/Prof Andrew Smith - University of Illinois at Urbana-Champaign (USA) - Nanoparticle Probe Design Principles for Single-Molecule Analysis of Cells and Tissues	A/Prof Lacey McNally - Virginia Tech - Wake Forest University (USA) - Tracking of Nanodrug Delivery Vehicles and their Fate in Cancer
10:15 Invited	Prof Gaojian Chen - Soochow University (China) - MAG-based Glycopolymers for Enhanced Immune Cell Activation	A/Prof Arlene McDowell - University of Otago (NZ) - Does the Architecture of Cell-Penetrating Peptides Influence Cell Interactions?	Prof Hua Kuang - Jiangnan University (China) - Chiral Nano Probes to Perturb Complex Biological Systems
10:35	MORNING TEA		
SESSION Chair Room	<p>DRUG DELIVERY</p> <p>Water@Pier One</p>	<p>BIONANO INTERACTIONS &amp; NANOTOXICOLOGY</p> <p>Dr Pu-Chun Ke</p> <p>Dawes Point 1&amp;2</p>	<p>SENSORS &amp; IMAGING</p> <p>Dawes Point 3&amp;4</p>
11:10 Invited	Prof Chuan Zhang - Shanghai Jiao Tong University (China) - Self-assembled Drug-Containing DNA Nanostructures for Cancer Therapy	Prof Jiwei Cui - Shandong University (China) - Exploring Bio-Nano Interactions with Poly(ethylene glycol) Particles	Prof Jie Song - Shanghai Jiao Tong University (China) - Dynamic DNA Structures for Information Relay Visualized by AFM
11:30 Oral	A/Prof Ivan Kempson - University of South Australia (Australia) - Nanoparticle Radiosensitisation: From the Nano Scale to Clinical Planning	Prof Michael Higgins - University of Wollongong (Australia) - 'Watching' Single Protein Interactions on Nanoparticle and Polymer Surfaces in Liquid using High-Speed Atomic Force Microscopy	Dr Guozhen Liu - UNSW Sydney (Australia) - Structure-switching DNA on Graphene Oxides based in Vivo Device for Continuous Monitoring of Interferon- $\gamma$ in Inflammatory Mice
11:50 Oral	Dr Pie Huda - University of Queensland (Australia) - Polyamorous Nanobodies for High Affinity Tumour Targeting	Dr Aleksandr Kakinin - Monash University (Australia) - Hereto-Aggregation of Human Islet Amyloid Polypeptide with its Amyloidogenic Fragments	Dr Zach Houston - University of Queensland (Australia) - Applied Comparative Oncology of Nanomedicines to Diagnose and Treat Canine Prostate Cancer
12:10 Oral	Ms Melanie Fuller - Flinders University (Australia) - Gold Nanoparticles in Antibiotic Loaded Wound Dressings	Dr Matthew Faria - University of Melbourne (Australia) - Linking Low-Fouling to Stealth - A Whole Blood Biomolecular Corona and Cellular Association Analysis on Nanoengineered Particles	Dr Hilary Byrne - University of Sydney (Australia) - Pre-Clinical Study of Gadolinium-based Nanoparticles for Enhanced Radiotherapy and Imaging
12:30	Lunch		
1:30	<p><i>PLENARY:</i> Prof Chunying Chen - Chinese Academy of Sciences (China) - The Crown and the Scepter: Roles of the Protein Corona in Nanomedicine</p> <p><i>CHAIR:</i> Prof Andrew Whittaker    <i>ROOM:</i> Water@Pier One</p>		
SESSION Chair Room	<p>CLINICAL CHALLENGES</p> <p>A/Prof Phoebe Phillips</p> <p>Water@Pier One</p>	<p>INDUSTRY SESSION</p> <p>Prof Clive Prestidge</p> <p>Dawes Point 1&amp;2</p>	<p>DRUG DELIVERY</p> <p>Dawes Point 3&amp;4</p>
2:15 Invited	A/Prof David Ziegler - Sydney Children's Hospital (Australia) - Challenges in Childhood Cancer - Can Nanomedicine Save Us?	Mr Stewart Bartlett - Ferronova (Australia) - Nanoparticle Innovation in Cancer Surgery	Prof Ye-Zi You - University of Science and Technology of China (China) - Stimuli-responsive Polymers and Nanomicelles for Gene Delivery
2:35 Invited	Dr Ivan Ho Shon - Prince of Wales Clinical School (Australia) - Nuclear Medicine, Positron Emission Tomography and Nanomedicine: Potential Opportunities	Dr Christophe Barbé - Ceramisphere Pty Limited (Australia) - "Zero Waste" Nanocomposite Patches for Transdermal Delivery of Analgesics	Dr Bingyang Shi - Macquarie University (Australia) - New Strategy for Blood-Brain Barrier Crossing and Brain Disease Therapy
2:55 Invited	TBA	Mr George Kokkinis - Pharmako Biotechnologies Pty Ltd (Australia) - Technologies Applied to Nutraceutical Ingredients to Increase Bioavailability	Dr Amiral Popat - University of Queensland (Australia) - Emerging Trends in Stimuli Responsive Nanocarriers for Oral Drug Delivery
3:15	AFTERNOON TEA		
3:50	<p>POSTER PRESENTATION COMPETITION - Water @Pier One</p> <p><i>Chair:</i> Dr David Herman</p>		
500 - 7:00	POSTER SESSION - Water @Pier One (Drinks and BBQ provided)		
7:00	ACS JOURNALS POSTER PRIZE AWARDS ANNOUNCEMENT & PRESENTATION - Water @Pier One		

8:30	REGISTRATIONS OPEN		
9:00	<p><i>PLENARY:</i> Prof Ranjeny Thomas - University of Queensland (Australia) - Dendritic-Cell Peptide Targeting Liposome Platforms for Antigen-Specific Immunotherapy</p> <p><i>CHAIR:</i> Prof Maria Kavallaris    <i>ROOM:</i> Water@Pier One</p>		
SESSION	BIONANO INTERACTIONS & NANOTOXICOLOGY	MICROFLUIDIC & BIOENGINEERED MODELS	SENSORS & IMAGING
Chair	Prof Frank Caruso	Dr Rona Chandrawati	Dr Simon Corrie
Room	Water@Pier One	Dawes Point 1&2	Dawes Point 3&4
9:45 Keynote	Prof Haeshin Lee - Korea Advanced Institute of Science and Technology (Korea) - TBA	Dr Amir Reza Aref - Harvard Medical School (USA) - Screening Cancer Therapeutic Agents in Ex Vivo Controlled Microenvironment for Solid Patient Tumors	Prof Samuel Achilefu - Washington University in St. Louis (USA) - Radionuclide Stimulated Nanophotosensitizers for Cancer Therapy
10:15 Invited	A/Prof David Leong - National University of Singapore (Singapore) - Engineering Endothelial Leakiness with Nanotechnology	A/Prof Chun-Xia Zhao - University of Queensland (Australia) - Fundamental Nano-Bio Science Based on Biomimetic Engineering and Microfluidic Technology	Prof Daishun Ling - Zhejiang University (China) - Dynamic Nanoparticle Assemblies for Biomedical Imaging and Targeted Therapy
10:35	MORNING TEA		
SESSION	DRUG DELIVERY	MICROFLUIDIC & BIOENGINEERED MODELS	SENSORS & IMAGING
Chair			
Room	Water@Pier One	Dawes Point 1&2	Dawes Point 3&4
11:10 Invited	Prof Gang Zou - University of Science and Technology of China (China) - Sensitive Discrimination of Single Nucleotide Variant using PDA Microtube Waveguide System with Heterogeneous CHA Amplification and Competitive Inhibition Strategy	Dr Brooke Farrugia - University of Melbourne (Australia) - Bioengineering Growth Factor Delivery Systems	Dr Jan Lauko - University of Queensland (Australia) - Applications of Confocal-Rheology in Studies of Synthetic and Biological Systems
11:30 Oral	Prof Jie Liu - Sun Yat-sen University (China) - Enzymatic Synthesis of Functional Polyesters for Smart Therapeutic Nano-Systems	Dr Shiyang Tang - University of Wollongong (Australia) - High-Throughput, Off-Chip Microdroplet Generator Enabled by a Spinning Conical Frustum	Dr Ying Zhu - UNSW Sydney (Australia) - The Development of Plasmonic Nanohole Arrays towards Exosome Detection for Cancer Diagnosis
11:50 Oral	Dr Sandhya Clement - UNSW Sydney (Australia) - Targeted Drug Delivery for X-ray Induced Photodynamic Therapy	Mr Zhaobin Guo - University of South Australia (Australia) - Microvasculature-on-Chip: A New Tool for in vitro Radiobiological Studies	Dr Phu Duy Tran - University of South Australia (Australia) - Indium Oxide Nanosensors for Rapid Diagnosis of Preeclampsia in Emergency Departments and Remote Areas
12:10 Oral	Dr Wei Deng - UNSW Sydney (Australia) - Using Mitochondria-Targeted Nanocarriers and Low Dose X-Rays for Combined Photodynamic Therapy (PDT) of Colorectal Cancer	Ms Courtney van Ballegoie - University of British Columbia and BC Cancer (Canada) - Overcoming the Clinical Barriers of Protein Nanoparticles: Creating a Tunable and Reproducible Triggered Release System Using a Microfluidic System	Dr Yanfang Wu - UNSW Sydney (Australia) - Nanopore Blockade Sensors for Ultrasensitive Detection of Prostate-Specific Antigen in Human Whole Blood
12:30	LUNCH		
SESSION	DRUG DELIVERY	BIONANO INTERACTIONS & NANOTOXICOLOGY	SENSORS & IMAGING
Chair			
Room	Water@Pier One	Dawes Point 1&2	Dawes Point 3&4
1:30 Oral	Dr Hongxu Lu - University of Technology Sydney (Australia) - Size-dependent Response of Multicellular Tumour Spheroids to Anti-cancer Treatment	Dr Yi Ju - University of Melbourne (Australia) - Stealth and Targeting of Ligand-Functionalized Poly(ethylene glycol) Particles	Dr Rajesh Ramanathan - RMIT University (Australia) - Catalytic Enzyme-Mimic Nanoparticle-based Sensors: Detection of Small Molecules to Whole Cells
1:50 Oral	Dr Hao Song - University of Queensland (Australia) - Designer Nanotopography for Advanced Drug Delivery Platform	Mr Sarith Bandara - University of Illinois at Urbana-Champaign (USA) - Hydrogels Dehydrate Liposomes: the Structural Fate of Lipid Nanoparticles in the Extracellular Matrix	Ms Irene Theofilou - University of Birmingham (UK) - Luminescence Lifetime for Detection of Gold Nanoparticles that Target Mitochondria in Cancer Cells
2:10 Oral	Ms Zerong Ma - Children's Cancer Institute (Australia) - Biological Optimisation of Star-Polymer Nanoparticles for Effective Delivery of Therapeutic siRNA to Lung Cancer Cells	Mr Samuel Cheeseman - RMIT University (Australia) - Magnetic Liquid Metal Nanoparticles as a Stimuli-Activated Treatment for Pathogenic Biofilms	Mr Joshua Simpson - Centre for Advanced Imaging (Australia) - Exploration of Fluorophore-Driven Behaviours of Hyperbranched Polymer Nanomedicines Using Cross-Correlative Imaging
2:30 Oral	Ms Elena Steiert - Johannes Gutenberg-University Mainz (Germany) - Protein-based Nanoparticles for the Delivery of Antibacterial Enzymes	Miss Lu Fu - UNSW Sydney (Australia) - Targeting the Tumour Vasculature with Heparin Conjugated Cerium Oxide Nanoparticles	Ms Danielle Bennett - UNSW Sydney (Australia) - Plasmonic Sensing of Viral RNA for Point-of-care

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2:50	AFTERNOON TEA		
SESSION	DRUG DELIVERY	BIOACTIVE MATERIALS	SENSORS & IMAGING
Chair			
Room	Water@Pier One	Dawes Point 1&2	Dawes Point 3&4
3:20 Oral	Dr David Chang - Children's Cancer Institute (Australia) - Delivering Caelyx® to Multiple Cancers with Bispecific Antibodies	Ms Jieying Liang - UNSW Sydney (Australia) - Peptide-Induced Super-Assembly of Metal–Organic Framework for Programmed Enzyme Cascade Reaction	Dr Merfat Algethami - Taif University (Saudi Arabia) - BiOI Nanoparticles as a Novel Potential Imaging Contrast Agent Ffor Dual CT and Multi-Energy Spectral CT (MARS)-Phantom Study
3:40 Oral	Ms Parisa Badiie - UNSW Sydney (Australia) - Anti PD-1 Conjugated Nanoparticles: a Promising Delivery System to Inhibit PD-1 Immune Checkpoint	Mr Jian Liu - UNSW Sydney (Australia) - Artificial Cell Systems with on-Demand Biocatalytic Responses	Ms Chiung-Wen Hsu - Tunghai University (Taiwan) - Surface Enhanced Raman Spectroscopy for Bacteria Detection in Peritoneal Dialysis
4:00 Oral	Mr Daniel Brundel - Monash University (Australia) - Enzymatic Remodelling of the Extracellular Matrix Promotes Tumoural Penetration of a Model Nanoparticle	Ms Kochurani Kandamkulathy Johnson - UNSW Sydney (Australia) - Functionalising Nanoceria for Enhanced Cellular Uptake: Targeting the Epidermal Growth Factor Receptor in Cancer	Mr Max Weston - UNSW Sydney (Australia) - Lipid-Doped Polydiacetylene Vesicles for Visual Monitoring of Microbial Food Spoilage
4:20 Oral	Ms Tao-Wei Tang - Taipei Medical University (Taiwan) - Mesoporous Silica Nanoparticles Deliver STING Activator c-diGMP for Breast Cancer Immunotherapy	Mr Amit Khurana - NIPER-Hyderabad (India) - Yttrium Oxide Nanoparticles Resolve Acute Pancreatitis by Modulation of Mitochondrial and Endoplasmic Reticulum Stress	Ms Amani Alghalayini - University of Technology Sydney (Australia) - Heat Transfer Characteristics of Nanoparticles Measured with Tethered Bilayer Lipid Membranes
4:50	CLOSING CEREMONY & ORAL PRIZES ANNOUNCEMENT - Water@Pier One Profs Justin Gooding, Maria Kavallaris & Tom Davis Australian Centre for NanoMedicine (UNSW), ARC Centre of Excellence in Convergent Bio-Nano Science and Technology (Monash)		
5:00 - 7:00	FAREWELL DRINKS AND PIZZA - Water@Pier One		