

8:30	REGISTRATION OPEN			
9:00	WELCOME: Professors Justin Gooding, Maria Kavallaris & Tom Davis			
5.00	Australian Centre for NanoMedicine (UNSW), ARC Centre of Excellence in Convergent Bio-Nano Science and Technology (Monash)			
9:15	OPENING	OPENING: Professor Hugh Durrant-Whyte, NSW Chief Scientist and Engineer		
	PLENARY: Prof Irene Yarovsky - RMIT University (Australia) 9:30 Functionality and Biofouling Resistance in Nanomedicine: Role of Nanostructure, Dynamics and Hydration CHAIR: A/Prof Olga Shimoni ROOM: Water@Pier One			
9:30				
10:10	MORNING TEA			
SESSION	DRUG DELIVERY	BIOACTIVE MATERIALS	SENSORS & IMAGING	
CHAIR	A/Prof Joshua McCarroll	Prof Richard Tilley	Dr Ruirui Qiao	
ROOM	Water@Pier One	Dawes Point 1&2	Dawes Point 3&4	
10:40	A/Prof Jonathan Lovell - University at Buffalo (USA) - Nanoscale Formulations of Tetrapyrroles for Imaging and	Prof David Lynn - University of Wisconsin - Madison (USA) - Building Bioactivity into 'Slippery' Liquid-Infused	A/Prof Kanyi Pu - Nanyang Technological University (Singapore) - Molecular Afterglow Imaging for Cancer	
Keynote	Therapy	Porous Surfaces	Detection, Drug Screening and Imaging Guided Therapy	
11:10	Dr Francesca Cavalieri - University of Melbourne	Dr Carla Meledandri - University of Otago (NZ) - Silver	A/Prof Olga Shimoni - University of Technology Sydney	
Invited	(Australia) - Sono-Formulation of Anticancer Drugs into Nanodrugs	Nanocomposite Materials as Antimicrobial Agents for Dental Application	(Australia) - Tracking of Single Nanoparticles in Living Cells	
11:30) (oral) Dr David Chang - Children's Cancer Institute	🎯 (oral) Prof Ben Boyd - Monash University (Australia)	Prof Ewa Goldys - UNSW Sydney (Australia) - Radiation	
Invited/	(Australia) - Delivering Caelyx® to Multiple	 Drug Nanocrystals under Liposomal Confine- ment – Understanding and Opportunities in New 	-induced Reactive Oxygen Species from Designed Nano-	
Oral	Cancers with Bispecific Antibodies	Materials	materials for Cancer Treatment	
11:50	Or Ernest Moles - Children's Cancer Institute (Australia)	ⓒ Dr Yuhuan Li - Monash University (Australia)- Thiol-ac-	Dr Simon Corrie - Monash University (Australia)	
Oral	- Bispecific Antibody-Targeted Combinatorial Nanotherapeutics for High-Risk Acute Lymphoblastic	tivated H2S Releasing Polymer for Reducing the	- Reagentless Biosensors for 1-Step Detection of	
Ului	Leukaemia Chemotherapy	Generation of Oxidative Stress	Cardiac Troponin-I	
12:10		LUNCH		

MONDAY, 24th JUNE 2019

	PLE	NARY: Prof Alan Rowan - University of Queensland (Austral	ia)
1:10	Biomimetic Materials Mechanotransduction Controlling Cellular Activity CHAIR: Prof Tom Davis ROOM: Water@Pier One		
SESSION	DRUG DELIVERY	BIOACTIVE MATERIALS	SOCIAL ASPECTS & REGULATORY
CHAIR	Dr Sophia Gu	Dr Kang Liang	Dr Declan Kuch
ROOM	Water@Pier One	Dawes Point 1&2	Dawes Point 3&4
1:55 Keynote	Prof Magdalena Plebanski - RMIT University (Austra- lia) - 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 Nanomate- rials 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) - Social and Regulatory Measures in Bionanomedicine in Asia: A Case for Responsible Innovation
2:45 Invited	Dr Jonathan Choi - Chinese University of Hong Kong (Chi- na) - Morphological Diversity, Protein Adsorption, and Cel- lular Uptake of Polydopamine-Coated Gold Nanoparticles	A/Prof Fangyuan Li - Zhejiang University (China) - NIR-Triggered Tumor-Selective Photodynamic Therapy Using Upconversion Nanoparticle Based Nanoassemblies	Or Declan Kuch - UNSW Sydney (Australia) - The EPR Effect Controversy: The View From A Science-So- ciology Collaboration
3:05	AFTERNOON TEA		
SESSION	DRUG DELIVERY	BIOACTIVE MATERIALS	BIONANO INTERACTIONS & NANOTOXICOLOGY
CHAIR	Dr Guozhen Liu	Dr Lucy Gloag	Prof Pall Thordarson
ROOM	Water@Pier One	Dawes Point 1&2	Dawes Point 3&4
3:40	A/Prof Ke Zhang - Northeastern University (USA) - Making	Dr Nicholas Stephanopoulos - Arizona State University	A/Prof David Leong - National University of Singapore
Keynote	Oligonucleotides Better Biopharmaceuticals with Brush Polymers	(USA) - Hybrid Polypeptide-DNA Nanomaterials for Biomedicine	(Singapore) - Engineering Endothelial Leakiness with Nanotechnology
	Dr Andrew Care - Macquarie University (Australia) -		Prof Stephen Kent - University of Melbourne
4:10	Bioengineering a Protein Nanocage to Disrupt the Unique	Dr Saimon Moraes Silva - Swinburne University (Austra-	(Australia) - Self-assembling Protein
Oral	Metabolic Properties of the Childhood Cancer Neuroblas- toma	lia) - Stable Antifouling Surfaces based on Lubricin	Nanoparticle Influenza Vaccines Enhance Generation of Antibody Immunity in the Lymph Nodes
4:30	Dr Sarah Shigdar - Deakin University (Australia) - Targeted	Ms Song Gao - UNSW Sydney (Australia) - Biocatalytic	Dr Sara Romanazzo - UNSW Sydney (Australia) - Bio-
Oral	Drug Delivery Reduces Systemic and Brain Metastases	Frameworks with Reversible pH-Gated Speed Regulation for Smart Micromotors	mimetic Porous Calcium Phosphate Nanoparticles for Treatment of Bone Cancer
6:30 – 9:30		CONFERENCE DINNER – Water @Pier One	

PROGRAM

TUESDAY, 25th JUNE 2019

8:30	REGISTRATION OPEN			
	PLENARY: Prof Joseph Wang - University of California, San Diego (USA)			
9:00	Biomedical Nanorobots: a 'Fantastic Voyage'			
	CHAIR: Prof Justin Gooding ROOM: Water@Pier One			
SESSION	DRUG DELIVERY	BIONANO INTERACTIONS & NANOTOXICOLOGY	SENSORS & IMAGING	
CHAIR	Prof Cyrille Boyer	Dr Kristopher Kilian	A/Prof Kristofer Thurecht	
ROOM	Water@Pier One	Dawes Point 1&2	Dawes Point 3&4	
9:45 Keynote	Prof Didier Gigmes - 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 Urba- na-Champaign (USA) - Nanoparticle Probe Design Princi- ples for Single-Molecule Analysis of Cells and Tissues	A/Prof Lacey McNally - Virginia Tech Wake Forest Univer- sity (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?	Dr Guozhen Liu - UNSW Sydney (Australia) - Struc- ture-switching DNA on Graphene Oxides based in Vivo Device for Continuous Monitoring of Interferon-y in Inflammatory Mice	
10:35	MORNING TEA			
SESSION	DRUG DELIVERY	BIONANO INTERACTIONS & NANOTOXICOLOGY	SENSORS & IMAGING	
CHAIR	Dr Friederike Mansfeld	Dr Jason Xu	Dr Kristel Tjandra	
ROOM	Water@Pier One	Dawes Point 1&2	Dawes Point 3&4	
11:10 Invited/ Oral	(oral) A/Prof Ivan Kempson - University of South Austra- lia (Australia) - Nanoparticle Radiosensitisation: From the Nano Scale to Clinical Planning	Prof Jiwei Cui - Shandong University (China) - Exploring Bio-Nano Interactions with Poly(ethylene glycol) Particles	(oral) Dr Rajesh Ramanathan - RMIT University (Australia) - Catalytic Enzyme-Mimic Nanoparticle-based Sensors: Detection of Small Molecules to Whole Cells	
11:30 Oral	Dr Sanvidhan Suke - Priyadarshini Institute of Engg. & Tech. (India) - Enhancement of Anti-arthritic and Anti-In- flammatory Activity of Nanoencapsulated Methylprednis- olone in Arthritis Model	Prof Michael Higgins - University of Wollongong (Austra- lia) - 'Watching' Single Protein Interactions on Nanopar- ticle and Polymer Surfaces in Liquid using High-Speed Atomic Force Microscopy	Dr Yaser Hadi Gholami - University of Sydney (Australia) - A Novel Immuno-Radio-Nanoplatform for Simultaneous PET/MRI and Targeted Radionuclide Therapy	
11:50 Oral	Dr Pie Huda - University of Queensland (Australia) - Polyamorous Nanobodies for High Affinity Tumour Targeting	©Dr Aleksandr Kakinen-Monash University (Australia) - Hereto-Aggregation of Human Islet Amyloid Polypeptide with its Amyloidogenic Fragments	Or Zach Houston-University of Queensland(Australia) - Applied Comparative Oncology of Nanomedi- cines 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		

TUESDAY, 25th JUNE 2019

	PLENARY: Prof Chunying Chen - Chinese Academy of Sciences (China)		
1:30	The Crown and the Scepter: Roles of the Protein Corona in Nanomedicine		
	CHAIR: Prof Andrew Whittaker ROOM: Water@Pier One		
SESSION	CLINICAL CHALLENGES	INDUSTRY SESSION	DRUG DELIVERY
CHAIR	A/Prof Phoebe Phillips	Prof Clive Prestidge	Dr Peter Wich
ROOM	Water@Pier One	Dawes Point 1&2	Dawes Point 3&4
2:15 Invited	A/Prof David Ziegler - Sydney Children's Hospital (Austra- lia) - 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 Nanomi- celles for Gene Delivery
2:35 Invited	Dr Ivan Ho Shon - Prince of Wales Clinical School (Austra- lia) - 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	Dr Antoinette Anazodo - Sydney Children's Hospital and Prince of Wales Hospital (Australia) - Infertility in Cancer Patients Due to Cancer Therapy	Mr George Kokkinis - Pharmako Biotechnologies Pty Ltd (Australia) - Technologies to Increase Orally Dosed Bioavailability of Nutraceutical Ingredients and their Commercialisation	Dr Amirali Popat - University of Queensland (Australia) - Emerging Trends in Stimuli Responsive Nanocarriers for Oral Drug Delivery
3:15	AFTERNOON TEA		
3:50	POSTER PRESENTATION COMPETITION – Water@Pier One CHAIR: Dr David Herman		
5:00-7:00	POSTER SESSION – Water@Pier One (Drinks and BBQ Provided)		
6:00	ACS JOURNALS POSTER AWARDS ANNOUNCEMENT & PRESENTATION - Water@Pier One		

Poster presentations at the 10th International Nanomedicine Conference will take place in two sessions:

- 1) Three minute poster presentation session from 3:50pm in Water @Pier One
- a. Through this session presenters must succinctly highlight the unique aspects of your research, as well as comment on commercial opportunities using no more than four PowerPoint slides including title page.
- b. Presenters in this session are eligible for one of four poster prizes to be judged during the session.
- c. Presenters in this session must also display their posters in the traditional session (described below).
- 2) Traditional poster display from 5:00pm in Water @Pier One
- a. All poster presenters must display their poster in the traditional poster session, and be with their poster on Tuesday afternoon to discuss their work.
- b. Poster boards will be available in the Boardroom for presenters to hang their posters during lunch on Tuesday.
- c. Please collect your poster at the conclusion of the poster session, or from the registration desk on Wednesday.

BROGRAM

WEDNESDAY, 26th JUNE 2019

8:30	REGISTRATION OPEN			
	PLENARY: Prof Ranjeny Thomas - University of Queensland (Australia)			
9:00	Dendritic-Cell Peptide Targeting Liposome Platforms for Antigen-Specific Immunotherapy			
CHAIR: Prof Maria Kavallaris ROOM: Water@Pier One				
SESSION	BIONANO INTERACTIONS & NANOTOXICOLOGY	MICROFLUIDIC & BIOENGINEERED MODELS	SENSORS & IMAGING	
CHAIR	Dr Pu-Chun Ke	Prof Benjamin Thierry	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) - Polydopamine Coating and TANNylation: Mussel- and Plant-inspired Biomaterials	A/Prof Renea Taylor - Monash University (Australia) - Les- sons Learned from Tissue Engineered Models of Human Prostate Cancer	Prof Samuel Achilefu - Washington University in St. Louis (USA) - Radionuclide Stimulated Nanophotosensitizers for Cancer Therapy	
10:15 Invited/ Oral	(oral)Dr Yi Ju - University of Melbourne (Australia) -Stealth and Targeting of Ligand-Functionalized Poly(ethylene glycol) Particles	A/Prof Chun-Xia Zhao - University of Queensland (Austra- lia) - 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	Dr Narges Bayat	Dr Rona Chandrawati	Dr Hilary Byrne	
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 Nucle- otide 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	Dr Nicholas Hunt - University of Sydney (Australia) - Tar- geted Delivery to the Liver Sinusoidal Endothelium using Silver Sulfide Quantum Dots	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 Develop- ment of Plasmonic Nanohole Arrays towards Exosome Detection for Cancer Diagnosis	
11:50 Oral	Dr Sandhya Clement - UNSW Sydney (Australia) - Tar- geted Drug Delivery for X-ray Induced Photodynamic Therapy	Prof Benjamin Thierry - 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 Mito- chondria-Targeted Nanocarriers and Low Dose X-Rays for Combined Photodynamic Therapy (PDT) of Colorectal Cancer	Ms Courtney van Ballegooie - University of British Colum- bian 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 CHAIR ROOM	DRUG DELIVERY Dr MoonSun Jung Water@Pier One	BIONANO INTERACTIONS & NANOTOXICOLOGY Dr Sara Romanazzo Dawes Point 1&2	SENSORS & IMAGING Dr Pie Huda Dawes Point 3&4
1:30 Oral	Dr Hongxu Lu - University of Technology Sydney (Austra- lia) - Size-dependent Response of Multicellular Tumour Spheroids to Anti-cancer Treatment	Mr Richard Maschmeyer - University of Sydney (Austra- lia) - Nanoparticle Dose Enhancement for Cu-67 Internal Radionuclide Therapy: a Monte Carlo Study	Mr Pramod Jagtap - Indian Institute of Technology (India - Design and Development of Strategies for Effective Bacterial Infection Management
1:50 Oral	Dr Hao Song - University of Queensland (Australia) - Designer Nanotopography for Advanced Drug Delivery Platform	Mr Sarith Bandara - University of Illinois at Urba- na-Champaign (USA) - Hydrogels Dehydrate Liposomes: the Structural Fate of Lipid Nanoparticles in the Extracel- lular Matrix	Ms Irene Theofilou - University of Birmingham (UK) - Lu minescence 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-Acti- vated Treatment for Pathogenic Biofilms	Mr Joshua Simpson - Centre for Advanced Imaging (Australia) - Exploration of Fluorophore-Driven Behaviours of Hyperbranched Polymer Nanomedi cines 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
2:50		AFTERNOON TEA	
SESSION CHAIR ROOM	DRUG DELIVERY Dr Sandhya Clement Water@Pier One	BIOACTIVE MATERIALS Dr Yuhuan Li Dawes Point 1&2	SENSORS & IMAGING Dr Ying Zhu Dawes Point 3&4
3:20 Oral	Ms Ting-Chun Wen - Taipei Medical University (Taiwan) - Developing Mesoporous Silica Nanoparticles for Biolog- ical Applications	Dr Cindy Gunawan - University of Technology Sydney (Australia) - Nanosilver and Priority Pathogens: Develop- ment of Resistance	Dr Merfat Algethami - Taif University (Saudi Arabia) - Bid Nanoparticles as a Novel Potential Imaging Contrast Agent Ffor Dual CT and Multi-Energy Spectral CT (MARS)-Phantom Study
3:40 Oral	Ms Parisa Badiee - University of South Australia (Australia) - Anti PD-1 Conjugated Nanoparti- cles: 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-Dope Polydiacetylene Vesicles for Visual Monitoring of Micro bial Food Spoilage
4:20	Ms Tao-Wei Tang - Taipei Medical University (Taiwan) - Mesoporous Silica Nanoparticles Deliver STING Activator	Ms Jieying Liang - UNSW Sydney (Australia) - Peptide-In- duced Super-Assembly of Metal–Organic Framework for Programmed Enzyme Cascade Reaction	Ms Amani Alghalayini - University of Technology Sydne (Australia) - Heat Transfer Characteristics of Nanoparti cles Measured with Tethered Bilayer Lipid Membranes
Oral	c-diGMP for Breast Cancer Immunotherapy		
<i>Oral</i> 4:50	CLOSIN	G CEREMONY & ORAL PRIZES ANNOUNCEMENT - Water@P Profs Justin Gooding, Maria Kavallaris & Tom Davis e (UNSW), ARC Centre of Excellence in Convergent Bio-Nand	Vier One