

8:30	REGISTRATIONS OPEN		
9:00	WELCOME: Professors Maria Kavallaris, Kris Kilian & Rona Chandrawati		
9:15	OPENING: Dr Jean-Frederic Levesque - Chief Executive, NSW Agency for Clinical Innovation		
9:30	PLENARY: Justin Cooper-White - The University of Queensland <i>'Materially-encoding' Stem Cell Phenotype and Tissue Genesis and Repair – Mechano(nano)medicine!</i> CHAIR: Kris Kilian    ROOM: Water@Pier One		
10:10	MORNING TEA		
SESSION Chair Room	Drug Delivery Weibo Cai Water@Pier One	BIOMATERIALS & BIO-NANO INTERFACE Ruirui Qiao Dawes Point 1&2	SENSORS & IMAGING Ying Zhu Dawes Point 3&4
10:40 Keynote	Bruno Sarmiento - Universidade do Porto - Multifunctional Neonatal Fc Receptor Targeted Nanomedicines for the Oral Delivery of Antidiabetic Peptides	Joyce Wong - Boston University - Engineering the Biointerface for Women's Health: Challenges and Solutions	Zhaowei Liu - University of California, San Diego - Plasmonics and Metamaterial Enhanced Super-Resolution Microscopy
11:10 Invited	Rui Tian - Xiamen University - A Bioengineered Homopolymer to Deliver CRISPR Prime Editors <i>in vivo</i>	Zhaohui Tang - Changchun Institute of Applied Chemistry - Tumor Microenvironment Remodeling-Mediated Sequential Drug Delivery Potentiates	Ewa Goldys - UNSW Sydney - Bringing Autocatalysis to CRISPR Sensors: could PCR tests become redundant?
11:30 Invited	Daniel Heath - University of Melbourne - Biomaterials for Drug and Antimicrobial Nanoparticle Delivery	Yannan Yang - University of Adelaide - Nanomaterials based In Situ Vaccine against Tumours	Xiaodi Su - Institute of Materials Research and Engineering - Portable Nanosensors for Infectious Disease and Environmental Surveillance
11:50 Oral	Bill Cheng - National Chung-Hsing University - Monocyte-mediated Drug Carriers Targeting Cancer Spheroids in a 3D Microfluidic Cell Culture that Reconstitute Tumour Microenvironment	Helen Xu - University of Technology Sydney - Nanostrategy of Targeting at Embryonic Trophoblast Cells using CuO Nanoparticles for Female Contraception	Simon Corrie - Monash University - Organosilica Nanoparticles for Real-time Monitoring of Oxygen and pH in Biological Systems
12:10	LUNCH		
1:10	PLENARY: Marcela Bilek - The University of Sydney <i>Engineering Robust Bioinspired Interfaces for Cell Microenvironments, Tissue-integration, Diagnostics, Biosensing and Nanomedicine</i> CHAIR: Palli Thordarson    ROOM: Water@Pier One		
SESSION Chair Room	DRUG DELIVERY Sophia Gu Water@Pier One	BIOMATERIALS & BIO-NANO INTERFACE Peter Wich Dawes Point 1&2	TISSUE ENGINEERING & ORGANOID TECHNOLOGY Junmin Lee Dawes Point 3&4
1:55 Keynote	Nicolas Voelcker - Monash University - Porous Silicon Based Nanomedicines	Joy Wolfram - The University of Queensland - Next-Generation Extracellular Vesicle Therapeutics	Justin Gooding - UNSW Sydney - Diagnostic Tools for the Detection and Treatment of Cancer: From 3D Cell Culture to Detecting Single Molecules
2:25 Invited	Jung-Joon (John) Min - Chonnam National University - Exploiting Bacteria for Cancer-specific Drug Delivery	Yiliang Lin - National University of Singapore - Material and Bio-Interface Design toward Biomedical Applications	Lana McClements - University of Technology Sydney - Utilizing 3D Bioprinting and Microfluidics Technologies to Establish Reliable Models of Cardiovascular Disease for Drug and Toxicity Testing
2:45 Invited	Yi David Ju - RMIT University - Exploring the Impact of Protein-nanoparticle Interactions in Human Blood	Mostafa Kamal Masud - The University of Queensland - Plasmonic Mesoporous Gold for SERS Biosensor for Clinically Relevant Biomarkers	Sekyu Choi - POSTECH - Skin Stem Cells and Organoid Technology
3:05	AFTERNOON TEA		
SESSION Chair Room	DRUG DELIVERY Lingxiao Zhang Water@Pier One	BIOMATERIALS & BIO-NANO INTERFACE Yannan Yang Dawes Point 1&2	SENSORS & IMAGING Shiyang Tang Dawes Point 3&4
3:40 Invited	Hong Yeol Youn - Korea Institute of Science and Technology - Bio-reducible Copper (II)-Oxide Nanoparticles for Effective Treatment of Acute Kidney Injury	Dan Yuan - The University of Queensland - Viscoelastic Fluids-based Microfluidic Devices and Applications	Yiqing Lu - Macquarie University - Visualizing Sub-second Dynamics of Single Nanoparticles crossing the Blood-brain Barrier in Live Zebrafish
4:00 Oral	Nicholas Fletcher - The University of Queensland - Pre-targeting of PEG-based Nanomedicines: Precise Delivery of Potent Payloads	Chantal Kopecky - UNSW Sydney - Matrix Mechanics Modulate Cancer Plasticity	Changkui Fu - The University of Queensland - Metal-free Polymeric MRI Contrast Agents
4:20 Oral	Paul Joyce - University of South Australia - Exploring Factors Influencing Biomolecular Corona Formation beyond Nanomedicine Composition and Structure	Megan Lord - UNSW Sydney - Understanding the Interplay between Nanoparticle Properties and Interactions with the Endothelium using in vitro Blood Vessel Models	Fei Deng - UNSW Sydney - Topological Barrier to Cas12a Activation by Circular DNA Nanostructures Facilitates Autocatalysis and Transforms DNA/RNA Sensing
4:40 Oral	Peter Davis - ATA Scientific - Nanoparticle Generation for Drug Delivery - something old, something new, most are borrowed – rarely blue	Matthew Faria - The University of Melbourne - Kinetic Modeling: a Pathway to Rational Design and Translation of Nanomedicines	Libing Amy Fu - University of Technology Sydney - Strategies based on Lanthanide-doped Upconversion Nano-complex and Their Biomedical Applications
5:00	WELCOME DRINKS & SNACKS		

8:30	REGISTRATIONS OPEN		
9:00	<p style="text-align: center;"><i>PLENARY: Mark Schoenfish - University of North Carolina at Chapel Hill</i>  <i>Nitric oxide-Releasing Liposomes for Treatment of Nontuberculous Mycobacteria Respiratory Infections</i>  <i>CHAIR: Rona Chandrawati    ROOM: Water @Pier One</i></p>		
SESSION Chair Room	<p style="text-align: center;">DRUG DELIVERY Jung-Joon (John) Min Water@Pier One</p>	<p style="text-align: center;">BIOMATERIALS &amp; BIO-NANO INTERFACE Chang Lei Dawes Point 1&amp;2</p>	<p style="text-align: center;">SENSORS &amp; IMAGING Chengchen Zhang Dawes Point 3&amp;4</p>
9:45 Keynote	Huiyu Liu - Beijing University of Chemical Technology - Design of Piezoelectric Materials for Sonodynamic Therapy	Weibo Cai - University of Wisconsin - Madison - (Cancer) Theranostics with (Intrinsically) Radiolabeled Nanomaterials	Bengang Xing - Nanyang Technological University - Charge-transferrable Nano-Assembled Probes for Second Near-infrared Tumor Imaging and Biosensing
10:15 Invited	Yunlu Dai - University of Macau - Metal-Phenolic Network (MPN) Biomaterials for Drug Delivery	Junmin Lee - POSTECH - Smart Design of Hydrogel-based Biomaterials as Extracellular Matrices for Tissue Engineering Applications	Shiyang Tang - UNSW Sydney - Electro-mechano Responsive Elastomers for Pressure and Strain Sensing
10:35	MORNING TEA		
SESSION Chair Room	<p style="text-align: center;">DRUG DELIVERY &amp; IMMUNOTHERAPY Daniel Heath Water@Pier One</p>	<p style="text-align: center;">BIOMATERIALS &amp; BIO-NANO INTERFACE Helen Xu Dawes Point 1&amp;2</p>	<p style="text-align: center;">SENSORS &amp; IMAGING Simon Corrie Dawes Point 3&amp;4</p>
11:10 Invited	Natalie Trevakis - Monash University - Nanomaterials for Lymphatic Delivery of Vaccines and Immunotherapies	Wantong Song - Changchun Institute of Applied Chemistry - Immuno-materials: The Interaction at Biointerface between Materials and Immune Cells	Brian Abbey - La Trobe University/ AlleSense - Improving Diagnosis of Early-stage Cancers via Nanofabricated Colorimetric Histology Platforms
11:30 Invited	Lingxiao Zhang - Aarhus University - Bifunctional NanoAlum for Augmenting Cancer Immunotherapy	Chun Xu - The University of Sydney - Modulating Immune Cell Response through Nano-Bio Interaction	Run Zhang - The University of Queensland - Responsive Probes for Background-Free Luminescence Bioassay and Imaging
11:50 Invited	Flávia Sousa - Université de Fribourg - Revolutionizing Glioblastoma Immunotherapy with Advanced Adjuvant Cancer Nanovaccines	Young Min Kim - Korea Institute of Science and Technology - Nano-Gel-Nano Vaccines for Immune Modulation to Treat Cancers	Ming Li - UNSW Sydney - Highly Sensitive and Stable Electrochemical Biosensors for Continuous Biomarker Monitoring
12:10 Oral	Shiyao Li - RMIT University - Exploring the PEG Immunogenicity of SARS-CoV-2 mRNA Vaccines in Humans	Andrew Care - University of Technology Sydney - Developing Protein Nanocages into a Vaccine Platform against Alzheimer's Disease	Michael Higgins - University of Wollongong - "Watching" Single Peptide – Single Nanoparticle Interactions using High-Speed Atomic Force Microscopy
12:30	Lunch		
1:30	<p style="text-align: center;"><i>PLENARY: Ronit Satchi-Fainaro</i>  <i>3D-Bioprinted Cancer Models for Target Discovery, Drug Development, and Personalized Therapy</i>  <i>CHAIR: Maria Kavallaris    ROOM: Water@Pier One</i></p>		
SESSION Chair Room	<p style="text-align: center;">POSTER SETUP Water@Pier One</p>	<p style="text-align: center;">CLINICAL CHALLENGES Bingyang Shi Dawes Point 1&amp;2</p>	<p style="text-align: center;">INDUSTRY SESSION Tushar Kumeria Dawes Point 3&amp;4</p>
2:15 Keynote/ Invited	POSTER SETUP	(Keynote) Karlheinz Peter - Baker Heart & Diabetes Institute - Theranostic Nanomedicine Approaches in Atherosclerosis and Thrombosis	Kyren Lazarus - Astra Zeneca - A Pathway from Academia to Industry
2:35 Keynote/ Invited		(Keynote) Meiyun Wang - Henan Provincial People's Hospital - Molecular Imaging Diagnosis and Non-invasive Treatment of Neurodegenerative Diseases	Stuart Fraser - Culturon - Culturon-Bringing Simple Covalent Biomolecule Attachment to Well Plates to the World
2:55 Keynote/ Invited			TBC
3:15	AFTERNOON TEA		
3:50	POSTER PRESENTATION COMPETITION - Water@Pier One <i>Chair: Peter Wich</i>		
5:00 - 6:00	POSTER SESSION - Water@Pier One		
6:00	POSTER PRIZE AWARDS ANNOUNCEMENT & PRESENTATION - Water@Pier One		
6:30- 9:30	CONFERENCE DINNER - Marquee @Pier One		

Poster presentations at the 14th 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 three PowerPoint slides.
  - b. Presenters in this session are eligible for one of five (5) 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 5:00 in Water@Pier One
  - a. All poster presenters must display their paper in the traditional poster session, and be with their poster on Tuesday evening to discuss their work.
  - b. Please submit your poster to registration desk by 9am on Tuesday.
  - c. Please collect your poster at the conclusion of the poster session, or from the registration desk on Wednesday.

8:30	REGISTRATIONS OPEN		
9:00	PLENARY: Fiorenzo Omenetto - Tufts University <i>The (Bio)materials Transition – Nature and Technology Together on Unexpected, Sustainable Silk Trails</i> CHAIR: Justin Gooding    ROOM: Water@Pier One		
SESSION	DRUG DELIVERY	BIOMATERIALS & BIO-NANO INTERFACE	TISSUE ENGINEERING & ORGANOID TECHNOLOGY
Chair Room	Rui Tian Water@Pier One	Angus Johnston Dawes Point 1&2	Lana McClements Dawes Point 3&4
9:45 Keynote	Hang Ta - Griffith University - Novel Multi-functional Composite Nanomaterials for Theranostics of Diseases	Kourosh Kalantar-Zadeh - The University of Sydney - Metallic, Liquid and Different: Liquid Metals in Biotechnology	Sungjune Jung - POSTECH - Challenges and Opportunities of Digital Bioprinting Technology for Future Medicine
10:15 Invited	Jie Tang - Monash University - Oral Delivery of Biomolecules: From Nanocarriers to Biomodulators	Chang Lei - The University of Sydney - Advanced Nano-platforms for Sensitive Biomolecule Detection	Nona Farbehi - UNSW Sydney - Photocrosslinked Silk Fibroin Microgels and Microgel Scaffolds for Tissue Engineering
10:35	MORNING TEA		
SESSION	DRUG DELIVERY	BIOMATERIALS & BIO-NANO INTERFACE	SENSORS & IMAGING
Chair Room	Natalie Trevaskis Water@Pier One	Dan Yuan Dawes Point 1&2	Run Zhang Dawes Point 3&4
11:10 Invited	Ivan Kempson - University of South Australia - Single Cell Analysis of Nanoparticle Fate and Impact in Treating Triple Negative Breast Cancer	Hyojin Lee - Korea Institute of Science and Technology - Bio-functionalized Nanoconstructs for Gene Editing and Therapy	Ruirui Qiao - The University of Queensland - Advancing Biomedicine Through Functional Hybrids: From Nanoparticle-Based Therapeutics to 3D-Printed Soft Robots
11:30 Invited	Jiali Maggie Zhai - RMIT University - Inverse Cubic and Hexagonal Mesophase Evolution within Ionizable Lipid Nanoparticles Correlates with mRNA Transfection in Macrophages	Angus Johnston - Monash University - Precise Delivery of mRNA Therapeutics	Chengchen Zhang - University of Southampton - Exploring the Interactions between Gallium-based Nanodroplets and Biological Systems for Biomedical Applications
11:50 Oral	Mark Unger - muPharma - Ultrasound Mediated Non-invasive Drug and Vaccine Delivery Device	Haitao Yu - RMIT University - Inverse Cubic and Hexagonal Mesophase Evolution within Ionizable Lipid Nanoparticles Correlates with mRNA Transfection in Macrophages	Abu Sina - The University of Queensland - Toward Precision Oncology: SERS Microfluidic Platforms for Multiplex Biomarker Analysis in Liquid Biopsy
12:10 Oral	Nicholas Hunt - The University of Sydney - Oral Nanotherapeutic Formulation of Insulin with Reduced Episodes of Hypoglycaemia	Jessica Mills - The University of Queensland - Modulating Macrophage Clearance of Nanoparticles: Comparison of Small-Molecule and Biologic Drugs as Pharmacokinetic Modifiers of Soft Nanomaterials	Rena Hirani - Australian Red Cross Lifeblood - Untapped Potential – How can Nanotechnology and Microfluidic based Technology be used to Improve the Field of Transfusion Medicine
12:30	LUNCH		
SESSION	DRUG DELIVERY	BIOMATERIALS & BIO-NANO INTERFACE	TISSUE ENGINEERING & ORGANOID TECHNOLOGY
Chair Room	Nicholas Fletcher Water@Pier One	Paul Joyce Dawes Point 1&2	Chantal Kopecky Dawes Point 3&4
1:30 Oral	Ji Yong Park - Seoul National University - Fate Controllable Clickable Albumin Nanopatform by Distinct Glycation for in-vivo Cell Targeting	Guochen Bao - University of Technology Sydney - Enhancing Upconversion Nanosystems by Moiety Engineered NIR Dyes for Biomedical Applications	Tushar Kumeria - UNSW Sydney - Mesoporous Nanoparticles-Polymer Composites for Tissue Regeneration
1:50 Oral	Pie Huda - The University of Queensland - Small Targeting Proteins in Radiopharmaceutics: Strategies for Optimisation and Biodistribution	Md Shariful Islam - UNSW Sydney - Evaluating the Influence of Nano-topography and Substrate Stiffening in Cell Differentiation	Sara Romanazzo - UNSW Sydney - Modelling the Transformation of Adipose-derived Stem Cells to a Cancer-associated Fibroblast Phenotype within 3D GelMA Microgels
2:10 Oral	Federico Mazur - UNSW Sydney - Enhancing Metallic Implants for Nitric Oxide Generation	Marco Cassani - The University of Melbourne - Tuning Bio-nano Interactions through Mechanobiology	Lin Zhu - UNSW Sydney - Impact of Tumor Microenvironment on miRNAs Expression
2:30 Oral	Peije Russell - Monash University - Theranostic Porous Silicon Nanoparticles for Personalised Treatment of Thrombosis	Zifei Han - UNSW Sydney - Collapsed Star Copolymers Exhibiting Near Perfect Mimicry of the Therapeutic Protein 'TRAIL'	Bram Soliman - UNSW Sydney - Confinement Induces Drug Resistance in Breast Cancer
2:50	AFTERNOON TEA		
SESSION	DRUG DELIVERY	BIOMATERIALS & BIO-NANO INTERFACE	Drug Delivery
Chair Room	Nicholas Hunt Water@Pier One	Andrew Care Dawes Point 3&4	Fei Deng Dawes Point 1&2
3:20 Oral	Lakshika Keerthirathna - Children's Cancer Institute - Development of mRNA Nanoparticles to Produce Chimeric Antigen Receptor - T cells to Treat Diffuse Intrinsic Pontine Glioma	Santhni Subramaniam - University of South Australia - A Disease-focussed Approach in Understanding Pulmonary Biomolecule Corona	Shu Geng - UNSW Sydney - Polydopamine-coated Selenium Nanoparticles as a Stable and Reuseable Catalyst for Tuneable Nitric Oxide Generation
3:40 Oral	Qingqing Fan - UNSW Sydney - Invisible Nanocoatings for Therapeutic Nitric Oxide Delivery via Phenol-amine Networks	Ali Nazari Zadeh - University of South Australia - Comparative Study of Radiosensitizing Effects of Gold and Aluminum Nanoparticles; does Atomic Number Matter?	Nidda Saeed - Ghent University - Overcoming Autofluorescence Barriers: A Novel NIR Method for Studying Electric Field-Driven Nanoparticle Penetration in Peritoneal Models
4:00 Oral	On Ting Choy - The University of Queensland - Lipid Nanoparticles using Alternative Polymer for mRNA Delivery	Yuhao Zhang - The University of Queensland - Next Generation of PEG with Sulfoxide-containing Side Chain	Wenting Yang - The University of Queensland - Combinatorial Synthesis of RAFT Cationic Polymers for mRNA Delivery
4:30	CLOSING CEREMONY & ORAL PRIZES ANNOUNCEMENT - Water@Pier One		
5:00	FAREWELL DRINKS & PIZZA		