

MONDAY, 22nd JUNE 2026

MONDAY, 22nd JUNE 2026

8:30	REGISTRATIONS OPEN & Welcome Tea & Coffee		
9:00	WELCOME: Professors Maria Kavallaris, Kris Kilian & Rona Chandrawati		
9:15	OPENING: Professor Cheryl Jones, Dean of Medicine and Health, UNSW		
9:30	PLENARY: Milan Mrksich - Northwestern University MegaMolecules and Applications as Antibody Mimics CHAIR: Kris Kilian ROOM: Water@Pier One		
10:10	MORNING TEA		
SESSION Chair Room	Drug Delivery Water@Pier One	BIOMATERIALS & BIO-NANO INTERFACE Dawes Point 1&2	SENSORS & IMAGING Dawes Point 3&4
10:40 Keynote	Wojciech Chrzanowski - The University of Sydney - Extracellular Vesicles as Multispecific Therapeutics for Longevity Medicine	Martina Stenzel - UNSW Sydney - Glycopolymers for solid brain tumour drug delivery	Hyungsoon Im - Massachusetts General Hospital - Molecular Analysis of Extracellular Vesicles for Cancer Diagnosis and Treatment Monitoring
11:10 Invited	Changkui Fu - The University of Queensland - Overcome the Challenge of PEG Immunogenicity in Nanomedicine	Chun Xu - The University of Sydney -	Hoang-Phuong Phan - UNSW Sydney - Nanothin Silicon Cantilevers for Wearable and Organ-on-Chip Applications
11:30 Invited	Ping Hu - Chinese Academy of Sciences - Nanocatalytic Immunotherapy of Solid Tumor	Francesca Cavalieri - The University of Rome - Engineering Sugar-based Nanoparticles for Delivery of Biotherapeutics	Muhammad J.A. Shiddiky - Charles Sturt University - A Portable Universal Device for Fast, On-the-Go Molecular Diagnostics
11:50 Oral	Bill Cheng - National Chung-Hsing University - Engineering Immune Cell-Guided Nanomedicine to Reshape the Tumour Microenvironment	Reina Ogino (Tanaka) - Showa Medical University - Defect-Engineered TiO ₂ for Coupling Biofunction and Electrochemical Stability	Fei Deng - UNSW Sydney - Autocatalytic Cas13a Biosensor Enabled by RNA-Nanocircles for Ultrasensitive RNA Detection
12:10	LUNCH		
1:10	PLENARY: Amy Shen - Okinawa Institute of Technology Graduate University Microfluidic Engineering for Nanomedicine: Linking Fluid Dynamics with Next-Generation Biosensing CHAIR: Rona Chandrawati ROOM: Water@Pier One		
SESSION Chair Room	DRUG DELIVERY Water@Pier One	BIOMATERIALS & BIO-NANO INTERFACE Dawes Point 1&2	TISSUE ENGINEERING & MICROPHYSIOLOGICAL SYSTEMS Dawes Point 3&4
1:55 Keynote	Charlotte Conn - RMIT University - Cubosome Lipid Nanoparticles: Linking Internal Nanostructure to Cellular Uptake and Cytosolic Delivery	Tai Wei David Leong - National University of Singapore - Engineering Endothelial Leakiness and Defect Engineered Transition Metals Dichalcogenides for Enhanced Cancer Killing	Fariba Dehghani - The University of Sydney - Architected and Translatable Biomaterial Platforms for Regenerative Medicine and Dynamic Biomedical Implants
2:25 Invited	Guojun Chen - McGill University - Bioresponsive Immunomodulator Nanocomplex for Selective Immunoengineering in Metastatic Lymph Nodes	Richard Lobb - The University of Queensland - Digital SERS Profiling of Extracellular Vesicles at Single-Vesicle Resolution	Seo Woo Song - Korea Institute of Science and Technology - Tissue Engineered Blood Vessel Array to Study Vascular Diseases
2:45 Invited	Christina Cortez-Jugo - The University of Melbourne - Carrier-free Nanodrugs for Biomedical Applications	Xueguang Lu - Chinese Academy of Sciences - Mucosal mRNA Vaccines for Infectious Diseases and Cancer	Giulia Silvani - UNSW Sydney - Micro-physiological Systems for Controllable Drug Delivery to the Brain
3:05	AFTERNOON TEA		
SESSION Chair Room	DRUG DELIVERY Water@Pier One	BIOMATERIALS & BIO-NANO INTERFACE Dawes Point 1&2	SENSORS & IMAGING Dawes Point 3&4
3:40 Invited	Ruirui Qiao - The University of Queensland -	David Nisbet - The University of Melbourne - Engineering Materials for Cell Transplantation and Reprogramming in the Brain	Peng Chen - Nanyang Technological University - Kinetic Fingerprinting of DNA Binding at Single-molecule Level with Single-base-mismatch Specificity by Interferometric Scattering Microscopy
4:00 Invited	Yi (David) Ju - Olivia Newton-John Cancer Research Institute - Toward Predictable mRNA-Lipid Nanoparticle Drug Delivery: Lessons from Human Blood Kinetics of mRNA Vaccines	Junmin Lee - POSTECH - Biomaterial-Based Platforms for Advanced and Personalized Tissue Models	Run Zhang - The University of Queensland - Monitoring and Modulating Inflammation to Improve Cancer Photothermal Therapy
4:20 Invited	Li Li - Charles Sturt University - Responsive Biomaterials: A Next-Generation Approach for Precision Nanomedicine and mRNA Delivery	Jessica Kretzmann - The University of Western Australia - Encoding Structures: DNA Design and Biological Function	Tong Ling - Nanyang Technological University - Interferometric Imaging of Cellular Nanomotion with Functional and Biological Insights
4:40 Invited	Nhiem Tran - RMIT University - Targeting Autoimmune Kidney Disease with Lipid Nanoparticles	Sang Ihn Han - Korea Institute of Science and Technology - Stretchable Conductive Nanocomposites Based on Nanowires in Elastomeric Matrix for Cardiac Electrophysiological Interfacing	Kevin M. Koo - The University of Queensland - Clinical Biosensor Validation Framework for Decentralised Prostate Cancer Liquid Biopsy Analysis
6:30- 9:00	CONFERENCE DINNER - Water @Pier One		

8:30	REGISTRATIONS OPEN & Welcome Tea & Coffee		
9:00	<p>PLENARY: tbc tbc</p> <p>CHAIR: tbc ROOM: Water@Pier One</p>		
SESSION	DRUG DELIVERY	BIOMATERIALS & BIO-NANO INTERFACE	TISSUE ENGINEERING & MICROPHYSIOLOGICAL SYSTEMS
Chair Room	Water@Pier One	Dawes Point 1&2	Dawes Point 3&4
9:45 Keynote	Nigel McMillan - Griffith University - Next-generation Lipid Nanoparticles (ngLNPs) Inspired by Extracellular Vesicles for Targeted, PEG-free, RNA Delivery for Vaccines and Gene Therapies	Natalie Trevasakis - Monash University - Lymphatic Transport, Pharmacokinetics, and Biodistribution of mRNA-lipid Nanoparticles after Intravenous and Subcutaneous Administration	Brendan Harley - University of Illinois Urbana-Champaign -
10:15 Invited	Pegah Varamini - The University of Sydney - Development of Cancer Cell Membrane-Coated Biomimetic Nanoparticle Systems for Targeted Treatment of Triple-Negative Breast Cancer	Jun Nakanishi - National Institute for Materials Science - Cell Adhesion Behaviours at Liquid-Liquid Interfaces	Yongdeok Kim - Korea Institute of Science and Technology - Biopreservation Study using 3D Cellular System Testbeds
10:35	MORNING TEA		
SESSION	DRUG DELIVERY	BIOMATERIALS & BIO-NANO INTERFACE	TISSUE ENGINEERING & MICROPHYSIOLOGICAL SYSTEMS
Chair Room	Water@Pier One	Dawes Point 1&2	Dawes Point 3&4
11:10 Invited	Qi (Hank) Han - RMIT University - Ionic Liquid Permeation Enhancers for Oral Insulin Delivery: linking nanostructure, permeability and gastric mucosal safety	Rongqin Huang - Fudan University - Intraoperative Nanotherapeutic Systems for Inhibiting Postoperative Tumor Recurrence and Metastasis	Nasim Amiralian - The University of Queensland - Dual-Functional Nanocellulose-Based Antimicrobial and Low-Fouling Coatings for Infection-Resistant Surfaces
11:30 Invited	Abraham Teunissen - Icahn School of Medicine at Mount Sinai - Promoting Organ Transplant Acceptance by Myeloid-specific Calcineurin Inhibition	Lei Bao - RMIT University - Carbon-Dot Nanozyme-Functionalised Responsive Hydrogels/Carbon-Dot Nanozyme-Functionalised Responsive Hydrogels	Vi Khanh Truong - Flinders University - Dynamic Nano-Biointerfaces for Coordinated Antimicrobial Defence and Immune-Regenerative Modulation
11:50 Invited/ Oral	(Oral) Amy Logan - Children's Cancer Institute - 3D Bioprinted Tumouroids for Predictive Drug Delivery Testing	(Oral) Zifei Han - UNSW Sydney - Deployable 3D-Printed Vascular Stent with Surface-Catalysed Endogenous Nitric Oxide Generation	Hyojin Lee - Korea Institute of Science and Technology - Nanoporous Freeze-Dried Architectures for Stable and Scalable Biopharmaceutical Delivery
12:10 Oral	Vittorio Picchio - Sapienza University of Rome - Killing of Gold Nanorods-loaded Human Cardiac Fibroblasts Mediated by Photo-thermal Activation	Qiaoyun Wang - UNSW Sydney - PEG-Fructose Ratio Engineering in SCNPs for Tumor Selectivity and Immunometabolic Modulation	Peilin Tian - UNSW Sydney - Drop-on-demand 3D Bioprinting of Patient-derived Colorectal Cancer Spheroids Enables High-throughput Screening of a CEACAM5-targeted SN-38 ADC
12:30	Lunch		
1:30	<p>PLENARY: Tejal Desai - Brown University</p> <p><i>Engineering Precision Biomaterials: Implications for Therapeutic Delivery and Immune Modulation</i></p> <p>CHAIR: Martina Stenzel ROOM: Water@Pier One</p>		
SESSION	DRUG DELIVERY	DRUG DELIVERY	SENSORS & IMAGING
Chair Room	Water@Pier One	Dawes Point 1&2	Dawes Point 3&4
2:15 Invited/ Oral	Paul Joyce - Adelaide University - The Gut Microbiome and Lipid Nanomedicines	(Oral) Shiyao Li - Olivia Newton-John Cancer Research Institute - Engineering Lipid Nanoparticles with Crystalline Mesophases	Elizabeth Hinde - The University of Melbourne -
2:35 Oral	Zihnil Mazrad - Monash University - Design of a Sustainable mRNA Delivery Platform Using Lipid-Polyhydroxyalkanoate Hybrid Nanoparticles	Shevanuja Theivendran - The University of Queensland - Silica Nanoparticle-Mediated Oral DNA Delivery: A pharmacokinetic understanding	Jiuyu Cui - UNSW Sydney - Using Liquid Biopsy to Track Cancer Dynamics in Lab-grown Tissues
2:55	AFTERNOON TEA		
SESSION	POSTER SETUP	CLINICAL CHALLENGES	INDUSTRY SESSION
Chair Room	Water@Pier One	Dawes Point 1&2	Dawes Point 3&4
3:20 Invited	POSTER SETUP	Jason Abbott - UNSW Sydney -	Riccardo Cazzoli - Valetudo Medtech - Targeted Uptake Therapy (TrUTH): The Drug Delivery Breakthrough that Built a Company
3:40 Invited		Joanneke Maitz - ANZAC Research Institute -	TBC
4:00	POSTER PRESENTATION COMPETITION - Water@Pier One Chair: Peter Wich		
5:00 - 6:00	POSTER SESSION - Water@Pier One		
6:00	POSTER PRIZE AWARDS ANNOUNCEMENT & PRESENTATION - Water@Pier One		
6:00 - 7:30	Networking Dinner & Drinks - Outdoor Pier		

Poster presentations will take place in two sessions:

- 1) Three minute poster presentation session from 4pm 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 four (4) 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. Poster boards will be available in the Plenary room for presenters to hang their posters after afternoon tea on Tuesday.
 - c. Please collect your poster at the conclusion of the poster session, or from the registration desk on Wednesday.

WEDNESDAY, 24th JUNE 2026

WEDNESDAY, 24th JUNE 2026

REGISTRATIONS OPEN & Welcome Tea & Coffee			
8:30			
9:00	<p>PLENARY: Jason Lewis - Memorial Sloan Kettering Cancer Center <i>Theranostics – “See What You Treat and Treat What You See.”</i> CHAIR: Maria Kavallaris ROOM: Water@Pier One</p>		
SESSION	DRUG DELIVERY	BIOMATERIALS & BIO-NANO INTERFACE	SENSORS & IMAGING
Chair Room	Water@Pier One	Dawes Point 1&2	Dawes Point 3&4
9:45	Chunxia Zhao - Adelaide University - Advancing Nanomedicines: From Design to Manufacturing Toward Clinical Translation	Yucai Wang - University of Science and Technology of China - In Vivo Transport Mechanisms and Applications of Drug Delivery Carriers	Irina Kabakova - University of Technology Sydney - Brillouin Imaging for Applications in Biomedicine
10:15	Can Yang Zhang - Tsinghua University - Living Nano/Micro Therapeutics	Wei Tang - National University of Singapore -	John Lock - UNSW Sydney -
10:35	MORNING TEA		
SESSION	DRUG DELIVERY	TISSUE ENGINEERING & MICROPHYSIOLOGICAL SYSTEMS	SENSORS & IMAGING
Chair Room	Water@Pier One	Dawes Point 1&2	Dawes Point 3&4
11:10	Yanyan Liu - Fudan University - Electroactive Materials Mediated Membrane Remodeling for Neuromodulation	Chengxue Helena Qin - Monash University - Targeting Resolution Biology to Modulate Vascular Inflammation	Alain Wuethrich - The University of Queensland - Single-Molecule Nanotechnologies for Digital Immunoprofiling
11:30	(Oral) Jingqu Chen - The University of Melbourne - Bioactive Metal–Organic Nanoparticles: A Versatile Platform for Therapeutic Delivery	Jin Yoo - Korea Institute of Science and Technology - Engineering Sprayable Hydrogels for Enhanced Wound Regeneration and Tissue Engineering Applications	Essam Dief - UNSW Sydney - Development of Stable Aptamer-based Sensors as a Universal Sensing Platform
11:50	Lingqing Zong - UNSW Sydney - Geobacter Sulfurreducens Armed with Biosynthetic Gold Nanoparticles for Tumor-Selective Cascade Catalytic Cancer Therapy	Bram Soliman - UNSW Sydney - Interfacial Stress-driven Drug Resistance is Affected by Breast Cancer Shape	Christoph Kugler - University of Vienna - Tri-modal Longitudinal Tomographic Imaging of Tumor Growth in vivo by Nanoparticle-loaded Microcapsules
12:10	Peter Davis - ATA Scientific - The Next Revolution in Sovereign DNA Production isn't Coming - it's already here	Varshini D. Venkata - Children's Cancer Institute - Development of a 3D ex vivo Bioprinted Immunocompetent Model of Neuroblastoma	Lucy Johnston - UNSW Sydney - Stretchable Nanoporous Thin Film Gold via Liquid-metal-driven Synthesis for Wearable Applications
12:30	LUNCH		
SESSION	DRUG DELIVERY	BIOMATERIALS & BIO-NANO INTERFACE	DRUG DELIVERY
Chair Room	Water@Pier One	Dawes Point 1&2	Dawes Point 3&4
1:30	Linqing Tian - UNSW Sydney - Controlled Formation of Ultrasmall Nanoparticles with Direct Cytosolic Access	James Paoloni - UNSW Sydney - Decoding Endothelial Glycocalyx-nanoparticle Interactions via a Systematic Polymeric Nanoparticle Library and High-content Characterization	Shu Geng - UNSW Sydney - High throughput screening of NO-generating polymers via PET-RAFT polymerisation
1:50	Åsa Jämting - National Measurement Institute Building Trust in Particle Size Measurements: the Challenge of Lipid Nanoparticles	Xie (Kate) He - The University of Queensland - Affinity-Tuned Albumin Hitchhiking Extends the Bioorthogonal Capture Window in Pretargeting Radiotheranostics	Maria Victorova - The University of Queensland - Enzymatically and Chemically Synthesised mRNA as a Therapeutic Agent
2:10	Timen Mooren - Katholieke Universiteit Leuven - Red Blood Cell-Inspired CD47 Proteoliposomes Enable Immune-Evasive Nanocarriers	Bhagya Abeygunasekara - The University of Western Australia - Intracellular Protein Corona Dynamics of DNA Origami Nanostructures	Shakil Polash - RMIT University - Bioinspired Gold Nanoparticles Enhance Cell Adhesion
2:30	Elisa Sophia Kulterer - University of Vienna - DNA-stuffer in mRNA-polyplexes Improves Endosomal Escape and Functional mRNA Delivery In Vitro and In Vivo	Duong Dinh - UNSW Sydney - Photo-responsive Peptide Hydrogel for Spatiotemporal Control of Embryoid Morphogenesis	Yuan Zhang - UNSW Sydney - Broad-Spectrum Intranasal LNP-siRNA Therapeutics against SARS-CoV-2: Targeted Nasopharyngeal Delivery and In Vivo Antiviral Efficacy
2:50	AFTERNOON TEA		
SESSION	DRUG DELIVERY	DRUG DELIVERY	TISSUE ENGINEERING & MICROPHYSIOLOGICAL SYSTEMS
Chair Room	Water@Pier One	Dawes Point 1&2	Dawes Point 3&4
3:20	Hyeon Hae Lee - The University of Melbourne - Towards Predicting Cellular Lipid Nanoparticle Uptake Across Doses with Transferable Kinetics	Jiaying Li - Monash University - Polymer Nanorods Formed by Selectively Hydrolysed Block Co-Poly(2-oxazoline): Stimuli-responsive Disassembly and Tuneable Cell Interactions	Kang Lin - UNSW Sydney - Synthetic Polymer-Induced Reprogramming Suppresses Malignancy in Cancer Cells
3:40	Jie Lay Lim - UNSW Sydney - Biomimetic Nanomotor in Drug Delivery Towards Pancreatic Cancer	Alireza Sarkar Lotfabad - Children's Cancer Institute - Targeted mRNA-LNPs for In Vivo Generation of CAR T Cells in Syngeneic Mouse Models of Diffuse Midline Glioma	Tesi Liu - Adelaide University - A Novel Pumpsless Microphysiological Platform for Long-term Glioblastoma Tissue Slice Culture and Personalized Radiotherapy
4:00	Jordan Kambanis - The University of Sydney - Lipid Nanoparticle-Extracellular Vesicle Hybrids for Enhanced Delivery to Retinal Cells	Nirasha Wickramasinghe - UNSW Sydney - Inhibiting TOPORS Activity to Sensitize Acute Myeloid Leukemia Cells to Hypomethylating Agents	Kelly Mint - Monash University - Chiral Poly(2,4-dialkyl-2-oxazoline) Cryogel Scaffolds for Tissue Engineering and Drug Delivery
4:30	CLOSING CEREMONY & ORAL PRIZES ANNOUNCEMENT - Water@Pier One		
5:00	FAREWELL DRINKS & PIZZA - Outdoor Pier		