

8:30	REGISTRATIONS OPEN		
9:00	<p><i>WELCOME:</i> Professors Maria Kavallaris, Cyrille Boyer & Kris Kilian Australian Centre for NanoMedicine (UNSW)</p>		
9:15	<p><i>OPENING:</i> Professor Attila Brungs - Vice-Chancellor and President - UNSW Sydney</p>		
9:30	<p>PLENARY: Prof Kristofer Thurecht - University of Queensland (Australia) <i>When Nanomaterials Meet Biology: Understanding what Contributes to Success and Failure of Materials in Nanomedicine</i> <i>CHAIR:</i> Scientia A/Prof Kris Kilian <i>ROOM:</i> Tyree Room @Scientia</p>		
10:10	MORNING TEA		
SESSION	DRUG DELIVERY	BIONANO INTERACTIONS	BIOACTIVE MATERIALS
Chair	Prof Clive Prestidge	Dr Ruirui Qiao	Prof Richard Tilley
Room	Tyree Room @Scientia	Gallery 1 @Scientia	Gallery 2 @Scientia
10:40 Keynote	Prof Palli Thordarson - UNSW Sydney - <i>Non-spherical Polymersomes and the (new) RNA World</i>	Prof Shelly Peyton - University of Massachusetts Amherst (USA) - <i>Tissue-Inspired Synthetic Biomaterials</i>	Prof Jadranka Travas-Sejdic - University of Auckland (NZ) - <i>Novel Conducting Polymer Biointerfaces</i>
11:10 Invited	Prof Nicolas Voelcker - Monash University - <i>Cancer Therapy using Porous Silicon Nanocarriers with Stimulus-Cleavable Linkers</i>	A/Prof Ivan Kempson - University of South Australia - <i>'Inert'-Nanoparticle Sensitization and Remodeling of Tumour</i>	Prof Christoph Hagemeyer - Monash University - <i>Smart Materials for Cardiovascular Disease Therapy</i>
11:30 Invited	A/Prof Juliana Hamzah - Harry Perkins Institute of Medical Research - <i>Barriers of Nanoparticle Delivery in Solid Tumours, how do we solve them?</i>	Dr Pingping Han - University of Queensland - <i>Cell-material Interaction via Controlled Mechano-transduction</i>	Dr Sophia Zi Gu - UNSW Sydney - <i>Engineering Nanosheets for Disease Diagnosis and Treatment</i>
11:50 Invited/ Oral	A/Prof Amirali Papat - University of Queensland - <i>Overcoming Biological Barriers using Stimuli Responsive Silica Nanoparticles</i>	Dr Yi David Ju - RMIT University - <i>Impact of Lipid Nanoparticle mRNA Vaccination on the Levels of PEG Specific Antibodies</i>	(Oral) Dr Eric Du - UNSW Sydney - <i>A 3D Bioprintable Hydrogel with Tuneable Stiffness for Exploring Cells Encapsulated in Matrices of Differing Stiffnesses</i>
12:10	LUNCH		
1:10	<p>PLENARY: Prof Chwee Teck Lim - National University of Singapore (Singapore) <i>Microfluidics for Disease Diagnosis and Monitoring</i> <i>CHAIR:</i> Prof Palli Thordarson <i>ROOM:</i> Tyree Room @Scientia</p>		

SESSION	DRUG DELIVERY	SENSORS & IMAGING	TISSUE ENGINEERING & ORGANOID TECHNOLOGY
Chair	Dr Zi Sophia Gu	A/Prof Rona Chandrawati	Dr Tushar Kumeria
Room	Tyree Room @Scientia	Gallery 1 @Scientia	Gallery 2 @Scientia
1:55 Keynote	Prof Youqing Shen - Zhejiang University (China) - <i>Transcytotic Nanomedicine for EPR-Independent Cancer Drug Delivery</i>	Prof Hossam Haick - Technion Israel Institute of Technology (Israel) - <i>Artificially Intelligent Medical Nanosensors for Clinical Decisions</i>	Asst Prof Hagar Labouta - Manitoba University (Canada) - <i>Dynamic Organ-on-a-Chip models: Bringing Bio-relevance to In vitro Evaluation of Nanoparticles</i>
2:25 Invited	Prof Clive Prestidge - University of South Australia - <i>Nanocarriers for Antimicrobials and Antimicrobial Photodynamics</i>	Dr Ying Zhu - University of Technology Sydney - <i>Analysis of Circulating Extracellular Vesicles for Liquid Biopsy using Novel Biosensors and Bioassays</i>	A/Prof Steven Wise - Sydney University - <i>Biological Applications of Plasma Dust Nanoparticles</i>
2:45 Invited	Dr Kristian Kempe - Monash University - <i>Stealth Poly(2-oxazoline) Nanoparticles and Nanorods for Biomedical Applications</i>	Miss Gayathri Subramaniam - University of Queensland - <i>Biologics as Peptide Delivery Vehicles for Immunotherapy</i>	A/Prof Khoon Lim - Otago University (NZ) - <i>Spatio-temporal Control of Physical Architecture within 3D-bioprinted Constructs for Enhanced Cellular Function</i>
3:05	AFTERNOON TEA		
SESSION	DRUG DELIVERY	BIONANO INTERACTIONS	TISSUE ENGINEERING & ORGANOID TECHNOLOGY
Chair	A/Prof Khoon Lim	Prof Benjamin Thierry	Dr MoonSun Jung
Room	Tyree Room @Scientia	Gallery 1 @Scientia	Gallery 2 @Scientia
3:40 Invited	Prof Wei Wei - Chinese Academy of Sciences (China) - <i>Biomimetic Formulation Engineering for Anticancer Therapy</i>	Dr Nghia Truong Phuoc - Monash University - <i>Boosting Vaccine Efficacy via Controlling Nano-Bio Interactions</i>	Dr Jan Lauko - The University of Queensland - <i>Synthetic and Hybrid Analogues of Biopolymer Networks for Tissue Engineering Applications</i>
4:00 Invited/ Oral	A/Prof Arlene McDowell - University of Otago (NZ) - <i>Nanomedicines for Use in Wildlife Applications</i>	Dr Changkui Fu - University of Queensland - <i>Sulfoxide Polymers: A New Class of Low-fouling Polymers for Biological Applications</i>	(Oral) Mr Ramanathan Yegappan - The University of Queensland - <i>Snake Venom Protein-Based Hydrogel Wound Sealant for Rapid and Stable Haemostasis</i>
4:20 Oral	Dr Nicholas Hunt - University of Sydney - <i>Oral Nanotherapeutic Formulations of Insulin</i>	Ms Qiaoyun Wang - The University of Queensland - <i>Low-Fouling Fluoropolymer Grafted Metal Organic Framework Nanotheranostics for 19F MRI-guided Cancer Therapy</i>	A/Prof Jelena Rnjak-Kovacina - UNSW Sydney - <i>A Biomimetic Approach Toward Enhancing Angiogenesis & Vascularisation of Biomaterials</i>
4:40 Oral	Dr Andrew Care - University of Technology Sydney - <i>Harnessing the Potential of Encapsulin Protein Nanocages for Nanomedicine</i>	Mr Samuel Cheeseman - RMIT University - <i>Understanding the Interface between Liquid Metal Droplets and Bacterial, Fungal and Mammalian Cells</i>	Miss Kang Lin - UNSW Sydney - <i>Confined Growth Directs Fibroblasts Plasticity and Induces 3D Bio-Assembly through Epigenetic Reprogramming</i>

8:30	REGISTRATIONS OPEN		
9:00	<p><i>PLENARY: Prof Jan Grimm - Memorial Sloan Kettering Cancer Center (USA)</i></p> <p><i>Treating Cancer with an Iron Fist</i></p> <p><i>CHAIR: Prof Maria Kavallaris ROOM: Tyree Room @Scientia</i></p>		
SESSION	BIOACTIVE MATERIALS	BIONANO INTERACTIONS	SENSORS & IMAGING
Chair	Dr John Quinn	Dr Jiangtao Jason Xu	Prof Weibo Cai
Room	Tyree Room @Scientia	Gallery 1 @Scientia	Gallery 2 @Scientia
9:45 Keynote	A/Prof Georgia Pastorin - National University of Singapore (Singapore) - <i>Design of Biohybrid Systems for Targeted Cancer Therapy</i>	Prof Guangjun Nie - Chinese Academy of Sciences (China) - <i>Intelligent Nanomedicines for Tumor Microenvironment Sensing, Targeting and Regulation</i>	Prof Vicki L. Colvin - Brown University (USA) - <i>Imaging Using Nanoparticles: From MRI to MPI</i>
10:15 Invited	A/Prof Natalie Trevaskis - Monash University - <i>Lipid Conjugated Materials that Harness the Lymphatics to Enhance Immunity and Metabolism</i>	A/Prof Pengyu Chen - Auburn University (USA) - <i>Nanoplasmonic Material based Optofluidic Biosensors for Immune Functional Analysis towards Personalized Immune Therapy</i>	Prof Jesse Jokerst - University of California San Diego (USA) - <i>New Ways to See Disease via Nanomaterials</i>
10:35	MORNING TEA		
SESSION	DRUG DELIVERY	BIONANO INTERACTIONS	SENSORS & IMAGING
Chair	Dr Kristian Kempe	Prof Christoph Hagemeyer	A/Prof Ivan Kempson
Room	Tyree Room @Scientia	Gallery 1 @Scientia	Gallery 2 @Scientia
11:10 Invited	Asst. Prof Wei Tao - Harvard University (USA) - <i>Smart Drug Delivery System</i>	Dr Arnold Lining Ju - University of Sydney - <i>Cellular and Molecular Mechanobiology in Cardiovascular Health</i>	Prof Benjamin Thierry - University of South Australia - <i>Fibroblast Activation Protein Specific MRI Improves Tumour Mapping in a Preclinical Orthotopic Model of Prostate Cancer Compared to PSMA</i>
11:30 Oral	Ms Feifei Liu - The University of Queensland - <i>Targeted Delivery of Immune-Boosting Peptides using Polymeric Nanoparticles to Manage Lung Cancer</i>	Miss Santhni Subramaniam - University of South Australia - <i>Pulmonary Delivery of Lipid-Based Nanoparticles: Identification of Proteins that Mediate Cellular Uptake Kinetics</i>	Dr Fei Deng - UNSW Sydney - <i>A CRISPR/Cas12a-assisted on-Fibre Immunosensor for Ultrasensitive Small Protein Detection in Complex Biological Samples</i>
11:50 Oral	Dr Cong Vu - UNSW Sydney - <i>Can the Shape of Nanoparticles Enable the Targeting to Cancer Cells over Healthy Cells?</i>	Dr Emily Pilkington - University of Melbourne - <i>Ligand-free Immune Cell Targeting by Lipid Nanoparticles</i>	Dr Alain Wuethrich - University of Queensland - <i>Liquid Biopsy Nanodiagnostics for Monitoring Cancer and the Human Immune System</i>

12:10 Oral	Dr Ernest Moles - Children's Cancer Institute - <i>Targeted Delivery of PEGylated Liposomal Doxorubicin by Bispecific Antibodies Improves Treatment of High-Risk Childhood Leukaemia</i>	Dr Nicholas Fletcher - The University of Queensland - <i>Together or Apart: Optimising the Pre-Targeting of Polymeric Nanocarriers</i>	Ms Angie Davina Tjandra - UNSW Sydney - <i>Polydiacetylene-Based Colorimetric Sensor Array for Rapid Volatile Organic Compounds Detection to Diagnose Early Lung Cancer</i>
12:30	Lunch & 3D VR Demo		
1:30	<p>PLENARY: Prof Bin Liu - National University of Singapore (Singapore) <i>Aggregation-Induced Emission: Materials and Biomedical Applications</i></p> <p>CHAIR: Prof Andrew Whittaker ROOM: Tyree Room @Scientia</p>		
SESSION Chair Room	CLINICAL CHALLENGES Dr Angelica Merlot Tyree Room @Scientia	INDUSTRY SESSION Dr Kang Liang Gallery 1 @Scientia	DRUG DELIVERY Dr Andrew Care Gallery 2 @Scientia
2:15 Invited	A/Prof Michelle Farrar - UNSW Sydney - <i>It's Science, not Fiction: the Clinical Application of AAV Gene Therapy in Child Neurology</i>	Dr Noushin Nasiri - Macquarie University - <i>Wearable Nano-Sensors for Personalised and Preventive Medicine</i>	Prof Ran Mo - China Pharmaceutical University (China) - <i>Nanotherapeutic Strategy to Overcome Anticancer Therapeutic Resistance</i>
2:35 Invited	Prof Andrew Lloyd - Kirby Institute - <i>Elimination of Hepatitis C: from Prison to Laboratory</i>	Dr Elisa Mokany - SpeeDx - <i>Two Halves Equal a Whole: the Opportunities in Translating Research</i>	Dr Peter Wich - UNSW Sydney - <i>Protein Biohybrid Materials for Degradable and Functional Nanoparticles</i>
2:55 Invited	Dr Marion Mateos - Sydney Children's Hospital - <i>Clinical Challenges in Paediatric Oncology - Opportunities for NanoMedicine?</i>	Mr Matthew Britland - Amgen - <i>From Bench to Boardroom - bringing Science to Practice</i>	A/Prof Sarah Shigdar - Deakin University - <i>Developing a Platform Technology to Cross the Blood Brain Barrier and Deliver Drugs to Specific Populations</i>
3:15	AFTERNOON TEA		
3:50	<p>POSTER PRESENTATION COMPETITION - Tyree Room @Scientia</p> <p>Chair: Dr David Herman</p>		
5:00 - 6:00	POSTER SESSION - Tyree Room @Scientia		
6:00	ACS JOURNALS POSTER PRIZE AWARDS ANNOUNCEMENT & PRESENTATION - Tyree Room @Scientia		
6:15 - 8:30	<p>CONFERENCE DINNER - The Lounge UNSW, Level 11, Library Building F21 (entry from rear of building), Library Road. Please follow our volunteers for directions. Dinner is sponsored by FB Rice who will also provide fabulous door prizes.</p>		

8:30	REGISTRATIONS OPEN		
9:00	<p style="text-align: center;"><i>PLENARY: Professor Gordon Wallace - University of Wollongong (Australia)</i></p> <p style="text-align: center;"><i>Graphene – the Wonder Material!</i></p> <p style="text-align: center;"><i>CHAIR: Prof Cyrille Boyer ROOM: Tyree Room @Scientia</i></p>		
SESSION	DRUG DELIVERY	BIOENGINEERED & MICROFLUIDIC MODELS	SENSORS & IMAGING
Chair	A/Prof Amirali Popat	Dr Peter Wich	Dr Nicholas Veldhuis
Room	Tyree Room @Scientia	Gallery 1 @Scientia	Gallery 2 @Scientia
9:45 Keynote	Prof Chunxia Zhao - University of Adelaide - <i>Role of Nanoparticle Stiffness in Regulating Nano-bio Interactions</i>	Prof Sungsu Park - Sungkyunkwan University (Korea) - <i>Social Games of Tumour and Virus on Microfluidic Device with Interconnected Microchambers</i>	Prof Fan Zhang - Fudan University (China) - <i>NIR-II Fluorescent Probes for in vivo Multiplexed Biode-tection</i>
10:15 Invited	Dr Pegah Varamini - University of Sydney - <i>A Multimodal Targeted Nanodiamond-based Theranostic Drug Delivery System: Precision Therapy of Triple Negative Breast Cancer</i>	Dr Anna Waterhouse - University of Sydney - <i>Biometric Vascular Nanomaterials for Next Generation Medical Devices</i>	Dr Karen Alt - Monash University - <i>Welcome to Magnetic Particle Imaging – A New Era in Preclinical Imaging</i>
10:35	MORNING TEA		
SESSION	DRUG DELIVERY	BIOENGINEERED & MICROFLUIDIC MODELS	SENSORS & IMAGING
Chair	Dr Pegah Varamini	A/Prof Jelena Rnjak-Kovacina	A/Prof Shery Chang
Room	Tyree Room @Scientia	Gallery 1 @Scientia	Gallery 2 @Scientia
11:10 Invited	A/Prof Rona Chandrawati - UNSW Sydney - <i>Nanozymes and Polymers for Nitric Oxide Delivery from Endogenous and Exogenous Prodrugs</i>	A/Prof Thomas Cox - Garvan Institute of Medical Research - <i>Deconstructing Solid Tumour Heterogeneity: The Stromal Matrix Perspective</i>	A/Prof Xiaowei Wang - Baker Heart and Diabetes Institute - <i>Molecular Imaging of Activated Platelets: Cardiovascular and Malignant Diseases</i>
11:30 Oral	Dr Nicholas Veldhuis - Monash University - <i>Developing Nanostar Systems for Sustained Endosomal Release of a Neurokinin-1 Receptor Antagonist to Provide Long-Lasting Relief of Chronic Pain</i>	Dr MoonSun Jung - Children's Cancer Institute - <i>A High-Throughput 3D Bioprinted Cancer Cell Migration and Invasion Model with Versatile and Broad Biological Applicability</i>	Dr Sang Eun Hong - Hannam University (Korea) - <i>Reactive Oxygen Species Scavenging and Improvement Effect of Inflammatory Disease Treatment by Interaction of Nanoparticles and Intracellular Organelle</i>
11:50 Oral	Dr Manisha Singh - IIIT (India) - <i>Ameliorating the Expression of Amyloid – β in cortical region of mice brain after Intranasal Delivery of Gingko biloba (EGB 761) Extract Loaded Nanoemulsions</i>	Miss Amber Prior - University of Queensland - <i>Understanding Nanoparticle Accumulation in a Complex in vitro Tumour-on-a-chip Model</i>	Miss Zhen Zhang - The University of Queensland - <i>Tracking Epithelial-Mesenchymal Transition in Liquid Biopsy using Surface-Enhanced Raman Scattering Nanotechnologies</i>
12:10 Oral	Dr Federico Mazur - UNSW Sydney - <i>Wearable Platform for Therapeutic Nitric Oxide Delivery</i>	Mr Zhao Wang - The University of Queensland - <i>Defined 3D Fibrin Networks for 'Scarless' Wound Healing Studies</i>	Miss Xin Xu - The University of Queensland - <i>Antifouling and Antibacterial Surfaces Grafted with Hydrophilic and Hydrophobic Copolymers</i>
12:30	LUNCH		

SESSION	DRUG DELIVERY	BIOACTIVE MATERIALS	BIONANO INTERACTIONS
Chair	Dr Belamy Cheung	Dr Yi David Ju	Dr Jan Lauko
Room	Tyree Room @Scientia	Gallery 1 @Scientia	Gallery 2 @Scientia
1:30 Oral	Dr Aria Ahmed-Cox - Children's Cancer Institute - <i>Visualisation and Efficacy of Nanoparticle Delivery for Brain Cancer</i>	Dr Lan Xiao - Queensland University of Technology <i>Gold Nanocluster-Induced Immunomodulation for Tissue Regeneration via Mitophagy Regulation: a Perspective on Materiobiology</i>	Dr Ibrahim Javed - The University of Queensland - <i>Molecular and Cellular Insights into the Role of Gut-Bacteria for Neurodegeneration</i>
1:50 Oral	Dr Md Musfizar Hassan - UNSW Sydney - <i>Sustained Drug Release from Nanoparticles Functionalized by a Neural Tracing Protein for Treatment Respiratory Dysfunction of Spinal Cord Injury</i>	Mr Changzhuang Bai - UNSW Sydney - <i>Visible Light Switchable Peptide-Based Hydrogel for Cell Culture</i>	Ms Haritha Kirla - Murdoch University - <i>LyP-1 Conjugated Methylene Blue Encapsulated Mesoporous Silica Nanoparticles for Targeted Photodynamic Therapy in Breast Cancer</i>
2:10 Oral	Dr Wenqian Wang - UNSW Sydney - <i>Controlling the Axonal Transport of Gold Nanoparticles with Neural Circuit Tracing Proteins</i>	Ms Luyao Sun - University of Queensland - <i>Structurally Tailored Drug-free Layered Double Hydroxide Nanoparticles for Synergized Photothermal/ Photodynamic/ Chemodynamic Therapy</i>	Ms Sonia Sebastian - University of South Australia - <i>Linking the Intracellular Journey of Gold Nanoparticles to Protein Expression Changes in Prostate Cancer Cells</i>
2:30 Oral	Miss Lara Westwood - University of Sydney - <i>Quantum Dot Nanomedicine Formulations Dramatically Improve Pharmacological Properties and Alter Uptake Pathways of Metformin and Nicotinamide Mononucleotide in Aging Mice</i>	Mr Hien Tran - UNSW Sydney - <i>Photocrosslinked Silk Hydrogels for Biomedical Applications: Understanding Complex Gelation Mechanisms</i>	Miss Qianyi Zhang - UNSW Sydney - <i>Cell-Derived Biomimetic 2D Nanoparticles to Improve Cell-Specific Targeting and Tissue Penetration for Enhanced Magnetic Resonance Imaging</i>
2:50	AFTERNOON TEA		
SESSION	DRUG DELIVERY	SENSORS & IMAGING	TISSUE ENGINEERING & ORGANOID TECHNOLOGY
Chair	Dr Changkui Fu	Dr Ying Zhu	Dr Wenqian Wang
Room	Tyree Room @Scientia	Gallery 1 @Scientia	Gallery 2 @Scientia
3:20 Oral	Miss Yingzhu Zhou - UNSW Sydney - <i>Tunable Gasotransmitter Generation and Delivery using Nanozymes</i>	Miss Yixin Chang - University of Queensland - <i>Low-fouling Gold Nanorods Enabled by Sulfoxide Polymer Coating</i>	Mr Gagan Jalandhra - UNSW Sydney - <i>Bone-Cartilage Interfaces via Printing of Ceramic Ink in Stem Cell-Laden Microgel Suspensions</i>
3:40 Oral	Mr Zijie Luo - UNSW Sydney - <i>Tunable Nitric Oxide Delivery by Nanomaterials and Polymers</i>	Miss Yuan Gao - UNSW Sydney - <i>Inkjet Printing of Polydiacetylene Quick Response Codes on Packaging for Food Spoilage Detection</i>	Ms Maria Ai Kristine Tolentino - UNSW Sydney - <i>Cell Migration in Well-Defined 3D Biomimetic Extracellular Matrices</i>
4:00 Oral	Mr Mohammad Abdallah - Monash University - <i>An α-Terminal Lipid Dictates Hitchhiking on Endogenous Lipid Trafficking Pathways, Influencing the Lymph Uptake, Plasma Half-Life and Tissue Distribution of Brush PEG Polymers</i>	Miss Qingqing Fan - UNSW Sydney - <i>Colorimetric Detection of a Neurodegenerative Biomarker Using a Metal-Organic Framework-based Nanozyme</i>	Miss Ashley Nguyen - UNSW Sydney - <i>Design and Development of Novel Peptide Hydrogels as Biomimetic Organoid Matrices</i>
4:30	CLOSING CEREMONY & ORAL PRIZES ANNOUNCEMENT & PRESENTATION - Tyree Room @Scientia		