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38TH AUSTRALASIAN POLYMER SYMPOSIUM

18–21 FEBRUARY 2024 · GRAND MILLENNIUM AUCKLAND · NEW ZEALAND

PRELIMINARY PROGRAM

Sunday 18 February 2024		
1300 - 1700	**Registration Desk Opens**	**Atrium Lounge**
1300 - 1700	**Exhibitor Bump In**	**Prefunction Area**
1600 - 1630	**Welcome to the 38th Australasian Polymer Symposium** Assoc. Prof. Georgina Such	**Millennium Ballroom**
1630 - 1715	**Plenary Presentation 1** - Professor Elizabeth Gillies, Western University **Design, synthesis, and applications of self-immolative polymers**	**Millennium Ballroom**
1715 – 1745	**David Sangster Awardee –** Assoc. Prof. Matthew Griffith, University of South Australia **Nanoengineered Electroactive Polymers: Soft Materials to Solve Hard Challenges in Energy and Health**	**Millennium Ballroom**
1800 - 2000	**Welcome Reception**	**Atrium Lounge & Prefunction Area**

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Monday 19 February 2024		
0800 - 1745	**Registration Desk Opens**	**Atrium Lounge**
0800 - 1700	**Speaker Room Opens**	**Boardroom**
0830 - 1600	**Exhibitor Opens**	**Prefunction Area**
	Plenary Session	**Millennium Ballroom**
0900 – 0910	**Welcome to Day 2** Assoc. Prof. Georgina Such	
0910 - 0955	**Plenary Presentation 2** - Professor Bronwyn Fox, CSIRO **Going beyond - new solutions and synergies in a fast-changing world**	
0955 - 1025	**Morning Refreshments & Trade Exhibition**	**Atrium Lounge & Prefunction Area**

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	Polymer of Health	Advances in Polymer Synthesis and Characterisation	Polymers for Energy and Catalysis	**Polymers for a Sustainable Future** *With thanks to our ECR Lectures Sponsor* Dulux Worth doing, worth Dulux.
Location:	Millennium Ballroom	Tasman 1	Tasman 2	Coromandel
Chair:	Assoc. Prof. Angus Johnston	Dr Jianyong Jin	Professor Justin Chalker	Professor Leonie Barner
	Keynote Speaker	Keynote Speaker	Keynote Speaker	Keynote Speaker
1030 – 1100	**Professor Martina Stenzel, University of New South Wales** The power of amino acids and sugar for the delivery of therapeutic drugs	**Assoc. Prof. Jiangtao (Jason) Xu, University of New South Wales** Hierarchical Polymer Design on Hydrogel Surfaces for Artificial	**Professor Jeffrey Pyun, University of Arizona** Polymerizations with Elemental Sulfur and Commodity Sulfur Chemicals for Next Generation Plastic Optics	**Dr Florian Graichen, Scion Research** The biggest adventure of humanity - linear to regenerative transition
1100 - 1115	**Thomas Jarrett, The University of Queensland** Using pH-responsive PEG cleavage to improve internalisation of cationic hyperbranched polymers into tumours	**Dr Laura Delafresnaye, Queensland University of Technology** Precision Photochemistry for Macromolecular Synthesis	**Dr Helene Rouault, CEA-Grenoble LITEN** PVdF based binders for gelled electrodes prepared with a dry process	**Dr He-Kuan Luo, Institute of Sustainability for Chemicals, Energy and Environment - A*STAR** The Application of Superbase for the Transformation of Sustainable Polymers

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1115 - 1130	**Dr Simbarashem Jokonya, University of Washington** Development of a STING-activating polymer for cancer immunotherapy	**Professor Cyrille Boyer, The University of New South Wales** Fabrication of Nanostructured Materials through 3D Printing and Polymerization Induced Microphase Separation	**Dr Fangfang Chen, Deakin University** Poly(ionic liquid) Electrolytes for Solid-State Batteries	**Dr Eddie Wai Chi Chan, University of Auckland** Polymer-based transient electronics via oligo-3-hexylthiophene grafted to degradable polymer backbone
1130 – 1145	**Yijun Xiong, University of Melbourne** Bile-acid derived monomer and polymers as a broad-spectrum antimicrobial agent	**Assoc. Prof. Hendrik Frisch, Queensland University of Technology** The Interplay of Light with Bioinspired Macromolecular Architectures	**Professor Prashant Sonar, Queensland University of Technology** Innovative Low-Cost Conjugated Charge Transporting Materials for Perovskite & Organic Solar Cells	**Dr Donya Ramimoghadam, CSIRO** Recyclable-by-design polyurethane polymer via dynamic covalent bonds
1145 - 1200	**Professor Michael Wolf, University of British Columbia** Photocrosslinkable Antimicrobial and Antiviral Polymers for Modification of Textiles	**Assoc. Prof. Stuart Thickett, University of Tasmania** Polymerizable Eutectics for the Preparation of Functional Materials	**Assoc. Prof. James Blinco, Queensland University of Technology** A New Spin on Organic Radical Batteries	**Ashwani Kumar, Australian National University** Towards a Greener Future: Upcycling Coffee Waste for Sustainable Plastic Replacement
1200 – 1215	**James Humphries, The University of Queensland** Exploiting the specificity of anti-polymer immune responses for personalised medicines	**Professor Xiangcheng Pan, Fudan University** Heteroatom Radical Controlled Polymerization	**Francis McCallum, Australian Institute For Bioengineering And Nanotechnology** Enhancing the Durability of Polymeric Materials via Sequential Infiltration Synthesis	**Tomaž Pirman, Helios Resins** A copolymerization approach to overcome the kinetic limitations of biobased itaconate radical polymerization

1215 - 1230	**Dr Katarzyna Nawrotek, Lodz University of Technology** Automatic device for fabrication of conduits mimicking the regenerative microenvironment of the peripheral nervous system	**Dr Daniel Eyckens, CSIRO** High-Throughput Concurrent Synthesis of Core-Crosslinked star-Polydimethylsiloxane Using an Arm-First Approach		**Brett Pollard, Australian National University** Polymers from cellulosic waste: Direct polymerisation of levoglucosenone using DBU as a catalyst
1230 - 1245	**Dr Cameron Evans, The University of Western Australia** Polymer-mediated DNA delivery enables construction of spatially encoded 3D cultures	**Dr Joshua Holloway, Queensland University of Technology** Up-Scalable Photochemical Synthesis of Polymer Microspheres		**Dr Raquel Fernandes, Arcp Colab - Associação Rede De Competência Em Polímeros** Tannin-based adhesives: how citric acid improve their performance?
1245 - 1300		**Dr Jochen Kammerer, Queensland University of Technology** Atomic resolution imaging for the quantitative analysis of metal-functionalized single-chain nanoparticles (SCNPs)		
1300 - 1400	**Lunch & Trade Exhibition**			**Atrium Lounge & Prefunction Area**

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	Polymer of Health	Advances in Polymer Synthesis and Characterisation	Polymers for Energy and Catalysis	Polymers for a Sustainable Future *With thanks to our ECR Lectures Sponsor* Dulux Worth doing, worth Dulux.
Location	Millennium Ballroom	Tasman 1	Tasman 2	Coromandel
Chair		Assoc. Prof. Jiangtao (Jason) Xu	Assoc. Prof. Melanie MacGregor	Dr Hatice Mutlu
	Keynote Speaker	Keynote Speaker	Keynote Speaker	Keynote Speaker
1405 - 1435	**Dr Amanda Pearce, Loughborough University** Understanding structure-activity relationships of polymeric nanoparticles in biological applications	**Dr Jennifer Garden, University of Edinburgh** Multimetallic Cooperativity: From Catalysts to Copolymers	**Assoc. Prof. Zhongfan Jia, Flinders University** Revive Radical Cathodes in Polymer Energy Storage	**Dr Erin Leitao, The University of Auckland** Siloxane cross-linked polysulfides
1435 - 1450	**Dr Gayathri Ediriweera, The University of Queensland** Metabolic Glycoengineering and Bioorthogonal Chemistry with Targeted Nanocarriers for Advancing Cancer Therapy	**Farah Haque, The University of New South Wales** Morphological transitions of hydrogen bonded supramolecular nanostructures synthesized via RAFT polymerization of amphiphilic block copolymers	**Assoc. Prof. Shudipto Dishari, University of Nebraska-lincoln** Ionomers with Biomimetic Ion Channels Alleviating Ion Transport Limitation in Electrochemical Systems	**Sofia Gonçalves, LEPABE–Faculdade de Engenharia da Universidade do Porto** Effect of lignosulfonates on moisture resistance of phenol-formaldehyde resins

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1450 - 1505	**Dr Naomi Hamelmann, University of Washington** Polymeric Prodrugs Forming Single-Chain Nanoparticles	**Professor Wouter Maes, Hasselt University** On the Importance of Chemical Precision in Organic Electronics	**Dr Kai Mundsinger, Queensland University of Technology** Visible Light Reactive Single-Chain Nanoparticles	**Dr Melissa K. Stanfield, University of Tasmania** Wood waste to plastic: bio-based polymers as next generation polymer material
1505 - 1520	**Dr Craig Bell, The University of Queensland** An Assessment of Hyperbranched Polymers through RAFT-based polymerisations: how componentry can influence structure	**Dr Ruiting Li, Max Planck Institute of Colloids and Interfaces** Soft hierarchical photonic pigments	**Dr Faezeh Makhlooghiazad, Deakin University** Polymerized Ionic Liquids as Solid Polymer Electrolytes for Enhanced Battery Applications	**Jasmine Pople, Flinders University** Scaling up the Electrochemical Production of Poly(trisulfides)
1520 – 1535	[redacted]	**Steven Thompson, The University of New South Wales** Synthesis and Film Formation of Emulsion Polymer Latexes Featuring H-Bonding via Janus Guanine-Cytosine Base Monomer	**Professor Curtis Berlinguette, University of British Columbia** Flexible automation accelerates materials discovery	**Alfrets D. Tikoalu, Flinders University** Amide Solvent Induced S-S Metathesis of Organic Trisulfides and its Application for Polymer Recycling
1535 – 1605	**Afternoon Refreshments & Trade Exhibition**			**Atrium Lounge & Prefunction Area**

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	Polymer of Health	**Advances in Polymer Synthesis and Characterisation**	**Polymers for Energy and Catalysis**	**Polymers for a Sustainable Future** *With thanks to our ECR Lectures Sponsor* Dulux – Worth doing, worth Dulux.
Location	Millennium Ballroom	Tasman 1	Tasman 2	Coromandel
Chair	Dr Amanda Pearce	Dr Jennifer Garden	Assoc. Prof. Zhongfan Jia	Assoc. Prof. George Vamvounis
	Keynote Speaker	Keynote Speaker	Keynote Speaker	Keynote Speaker
1610 – 1640	**Assoc. Prof. Melanie MacGregor, Flinders University** Plasma polymers for biomedical applications	**Dr Jianyong Jin, The University of Auckland** Living polymer networks prepared by controlled radical polymerization techniques	**Professor Jodie Lutkenhaus, Texas A&M University** Mixed Ion-Electron-Solvent Transfer in Radical-containing Polymers	**Dr Hatice Mutlu, University Haute de Alsace** Novel Sulfur Polymers: Yellow is the New Green
1640 – 1655	**Dr Cheng Cao, University of New South Wales** The protein corona leads to deformation and transition of micelles	**Seyed Ahmad Ayati Najafabadi, The University of New South Wales** Nano-engineering of aqueous polymer latex particles for film formation applications using multiblock copolymers	**Dr Manuel Salado Manzorro, Deakin University** Dimensionality Control of Li Transport by MOFs Based Quasi-Solid to Solid Electrolyte (Q-SSEs)	**Professor Jenny Pringle, Deakin University** Plastic crystal/polymer composites for light gas separation

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1655 - 1710	**Ayumi Pottenger, University of Washington** RAFT Polymerizable, Enzyme-Cleavable Polymeric Prodrugs for the Treatment of Infectious Disease	**Dr Ender Ercan, National Taiwan University** Unveiling Polyfluorene's Structure-Morphology-Property Dynamics: A Pathway to Neuromorphic Computing and Advanced Optoelectronic Materials	**Dr Sebastien Maria, Aix-Marseille University, CNRS, Institut de Chimie Radicalaire UMR 7273** Self-healing copolymers as electrolytes for stretchable Li-ion microbatteries	**Dr Lynn S. Lisboa, Flinders University** Functionalised sulfur polymers for fine-tuned properties
1710 - 1725	**Dr Nathan Boase, Queensland of Technology** Polymer-membrane interactions as a target for polymeric antivirals	**Dr Karen Hakobyan, University of New South Wales** RAFT SUMI: polymers from the bottom-up		**Professor Justin Chalker, Flinders University** Electrochemical synthesis of polysulfides: scope, mechanism, applications
1725 - 1740	**Dr Robert Chapman, University of Newcastle** Synthetic mimics of the TRAIL protein	**Linh-Duy Thai, Queensland University of Technology** Main-chain Macromolecular Hydrazone Photoswitches		**Professor Leonie Barner, Queensland University of Technology** Life Cycle Assessment in a Nutshell
1740 – 1755	**Dr Peter Wich, University of New South Wales** Polysaccharide Block Copolymers for Drug Delivery and Enzyme Prodrug Therapy	**Professor Masahiko Minoda, Kyoto Institute of Technology** Controlled synthesis of sulfated alternating glycopolymers as glycosaminoglycan mimics and their functional properties		
1800 - 1930	**Poster Session**			**Atrium Lounge & Prefunction Area**

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Tuesday 20 February 2024		
0830 - 1800	**Registration Desk Opens**	**Atrium Lounge**
0800 - 1730	**Speaker Room Opens**	**Boardroom**
0830 - 1600	**Exhibitor Opens**	**Prefunction Area**
	Plenary Session	**Millennium Ballroom**
0900 – 0910	**Welcome Day 3 and Housekeeping** Professor Tanja Junkers	
0910 - 0955	**Plenary Presentation 3 -** Prof. Dr. Frederik R. Wurm, University of Twente **Biodegradable polymers with tailored degradation - plastics of the future?**	
0955 - 1025	**Morning Refreshments & Trade Exhibition**	**Atrium Lounge & Prefunction Area**

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	Polymer of Health	Advances in Polymer Synthesis and Characterisation	Composite Materials and Additive Manufacturing	Polymers for a Sustainable Future *With thanks to our ECR Lectures Sponsor* Dulux – Worth doing, worth Dulux.
Location	Millennium Ballroom	Tasman 1	Tasman 2	Coromandel
Chair	Dr Nathan Boase	Assoc. Prof. James Blinco	Professor Luke Connal	Prof. Dr. Frederik R. Wurm
	Keynote Speaker	Keynote Speaker	Keynote Speaker	
1030 – 1100	**Asst. Prof. Cassandra Callmann, The University of Texas at Austin** Targeting Galectin-3 with Precision Glycopolymers	**Jun. Professor Dr. Meike Nicole Leiske, University of Bayreuth** Amino acids - Building blocks for the synthesis of polymers with tailored properties beyond proteins	**Prof. Dr. Daniel Klinger, Freie Universität Berlin** Function in polymer nanoparticles through chemistry, morphology, and shape	
1100 - 1115	**Dr James Wood, The University of Queensland** Organic ligand design enabling a theranostic approach with alpha and positron emitting radionuclides in a polymer or monoclonal antibody platform	**David Szmalko, RMIT University** Cyclic oligomers of poly(ether ketone ketone) and their polymerisation by entropy	**Assoc. Prof. Timothy Scott, Monash University** Stereolithographic Fabrication of Cold-programmable, Photo-erasable Shape Memory Polymers	**Tracey Read, The University of Queensland** The effect of non-toxic plasticiser and wood flour on the biodegradation of melt extruded polyhydroxyalkanoate (PHA) sheets in marine field trials

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1115- 1130	**Dr Edgar Wong,University of New South Wales** Smart Red Light-Activated Antimicrobial Prodrug Polymer	**Sebastian Gillhuber, Queensland University of Technology** Light-triggered Metal-induced Flow Synthesis of Catalytically Active Single-chain Polymer Nanoparticles	**Di Zhu, Australian National University** Ellagic acid: a hydrophilic photoinitiator for 3D printing of water-driven self-folding smart switch	**Assoc. Prof. George Vamvounis, James Cook University** A Controlled Approach to Understanding Microplastics in the Environment
1130 – 1145	**Cintya Dharmayanti, University of South Australia** Polymer-homopeptide nanoparticles for targeted endosomal drug release: An investigation into morphology and pH-responsive behaviour of regioisomers	**Haoxiang Zeng, The University of Sydney** UV-Responsive Bottlebrush Block Copolymers: Transition from Nanodiscs to Micelles through Triggered Self-Immolation Process	**Wei Cheng Chen, National Taiwan University** High-Performance Non-Volatile Photomemory Utilizing Branched Triblock Copolymers/Perovskite Quantum Dots	**Dr Sven Henning, Fraunhofer Imws** Toughness enhancement of polybutylene succinate (PBS) for injection moulding applications
1145 - 1200	**Yusra Rabbani, The University of Queensland** Nanocellulose Crystal Hydrogel Encapsulated Plasmonic Nanosensors for Detection of Reactive Oxygen Species (ROS): Towards a Sensing Bandage	**Dr Alexandra Mutch, University of Tasmania** Preparation of interpenetrating polymer networks through mixed-mode polymerization of eutectic mixtures	**Dr Matthieu Gresil, Monash University** Epoxy vitrimer: A potential matrix for multifunctional composite materials	**Dr Camille Bakkali-hassani, Montpellier** Biobased & (Bio)Catalysed Covalent Adaptable Networks
1200 – 1215	**Assoc. Prof. Rajib Saha, University of Nebraska-Lincoln** Dissecting Lignin Degradation and Fatty Acid Production in a Photosynthetic Soil Microbe	**Laura De Wal, University of South Australia** Hierarchically Porous Polymer Monoliths for Size Separation	**Siti Humairah Harun, University of New South Wales** Synthesis of Highly Porous Polymer Nanocomposite Foams With Graphene Oxide Via Miniemulsion Polymerization	**Dr Clement Matthew Chan, The University of Queensland** How Fillers and Functional Additives Impact the Biodegradation of Polyhydroxyalkanaote (PHA)?

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1215 - 1230	**Dr Nicholas Fletcher, University of Queensland** Pre-targeting approaches for polymeric nanomedicine alpha therapeutics	**Peidong Shen, Australian National University** Dynamics of Poly Cyclic Aminals And Their Triggered Released Of Aldehydes	**Hiruni Dedduwakumara, Queensland University of Technology** Investigating the impact of olefinic structure in polystyrene-polyisoprene-polystyrene (SIS) triblock copolymers on their performance as flexible electrothermal composite heaters	
1230 - 1245	**Fan Yang, The University of Melbourne** Designing dual pH-responsive nanoparticles for bacterial biofilm treatment	**Patrick Maag, Queensland University of Technology** Visible-Light-Induced Control over Folding and Unfolding of Fluorescent and Catalytically Active Single-Chain Nanoparticles		
1245 - 1345	**Lunch & Trade Exhibition**			**Atrium Lounge & Prefunction Area**

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	Polymer of Health	**Advances in Polymer Synthesis and Characterisation**	**Composite Materials and Additive Manufacturing**	**Polymers in Industry and Translational Research** *With thanks to our Theme Sponsor* DAVIES COLLISON CAVE
Location	Millennium Ballroom	Tasman 1	Tasman 2	Coromandel
Chair	Dr Peter Wich	Dr Bryan Tuten	Dr Samantha Kristufek	Dr Priya Subramanian
	Keynote Speaker	Keynote Speaker	Keynote Speaker	Keynote Speaker
1350 - 1420	**Professor Greg Qiao, The University of Melbourne** Amino Acid Based Antibacterial Polymeric Drugs	**Professor Angelika Neitzel, University of Florida** Charge density-driven demixing in multicomponent polyelectrolyte complex coacervates	**Professor AJ Boydston, University of Wisconsin-Madison** Multimaterial Actinic Spatial Control (MASC) 3D Printing	**Professor Madhu Bhaskaran, RMIT** Stretchable and conformal sensors for health care and aged care
1420 - 1435	**Yanting Gao, The University of Melbourne** Solvatochromic Fluorophore-Labeled Nanoparticles For Real-Time Monitoring of pH-Responsive Structural Reorganization and Drug Release	**Dr Hannes Houck, University of Warwick** Thermoreversible photodimerisation of thiomaleimides: a new chemistry platform for covalent polymer bonding, debonding and rebonding	**Dr Yasemin Fadil, University of New South Wales** Gradient and Core–Shell Waterborne Polymer Nanoparticles: Effects of Particle Morphology on Coating Performance	**Zahra Mossayebi, University of Melbourne** Antifogging amphiphilic Poly (Ionic Liquid)-based thin films with enhanced stability via continuous assembly of polymers (CAP)

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1435 - 1450	**Norman Ilich, Queensland University of Technology** A Delayed Release Implant made of Poly(glycolide-co-trimethylene carbonate-co-caprolactone)	**Nadeesha Lakmini Loku Mannage, Queensland University of Technology** Furan-modified lignin: New sustainable pathway to the rigid polyurethane foams	**Moki Thanusing, Australian National University** Water Harvesting Polymers	**Professor Luke Connal, Australian National University** Starting a Start-up
1450- 1505	**Lilian Boton, The Australian National University** Self-healing Hydrogels with Enhanced Antibacterial and Mechanical Properties by Tannic Acid Treatment	[redacted]	**Dr Sahar Salehi-müller, University of Bayreuth** Anisotropic composite ink development based on polymeric fillers and ADA-GEL for skeletal muscle tissue bioprinting	Keynote Speaker **Professor Olaf Diegel, University of Auckland** Additive Manufacturing: Understanding Value
1505 - 1520	**Dr Amal Jayakumar Sivaram, University of Queensland** Enhancing the delivery of gene therapy for Motor Neuron Disease using focused ultrasound assisted nanoparticles	[redacted]	[redacted]	
1520 – 1550	**Afternoon Refreshments & Trade Exhibition**			**Atrium Lounge & Prefunction Area**

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Location	Millennium Ballroom	Tasman 1	Tasman 2	Coromandel
Chair	Dr Jessica Kretzmann	Professor Angelika Neitzel	Prof. Dr. Daniel Klinger	Dr Ramon Tozer
	Keynote Speaker	Keynote Speaker	Keynote Speaker	Keynote Speaker
1555 – 1625	**Professor Patrick Stayton, University of Washington** Polymeric Prodrugs for Global Health and Immune Therapies	**Dr Bryan Tuten, Queensland University of Technology** Dynamic Chalcogen Squares for Material and Topological Control over Macromolecules	**Dr Samantha Kristufek, Texas Tech University** Harnessing the power of natural products towards 3D Printed Materials	**Dr Matthieu Gresil, Monash University** From Off-Stoichiometry to Biocatalysis: Unlocking the Potential of Vitrimers
1625 – 1640	**Mengdie Li, University of Queensland** Development of polymeric micelle-based nanoparticles for monitoring cytokine release in vivo via FRET	**Dr Harshal Patel, Flinders University** Unusual Trisulfide Chemistry and Exploratory Applications in Polymer Synthesis	**Ya Shuan Wu, National Taiwan University** Utilization of Conjugated Self-Assembled Molecules in Photosynaptic Transistors for Achieving Ultralow Energy Consumption	**Maximilian Beach, University of Melbourne** A Self-Healing Waterborne Acrylic Latex Coating based on Intrinsic Hydrogen Bonding

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1640 - 1655	**Md Aquib, University of New South Wales (UNSW)** Effects of Amphiphilic Terpolymer Topology on Antibacterial Activity and Hemocompatibility	**Dr Fumi Ishizuka, University of New South Wales** RAFT-Mediated Polymerization-Induced Self-Assembly for the Preparation of Hydrophobic Block Copolymer Nanoparticles in Alcohol/Water Stabilized by Poly(methyl methacrylate)	**Xiaotong Peng, Australian National University** Visible-Light-Responsive Metal-Organic Framework Photoinitiators for High-Resolution 3D Printing and Selective Absorption Composite Materials	**Saikat Ghosh, The University of Queensland** Antibody-based PET tracers for glioblastoma
1655 - 1710	**Hatu Gmedhin, University of New South Wales (UNSW)** Tailoring the Selectivity Profile of Ternary Antifungal Polymer Through Sequence-Controlling of the Functional Moieties		**Andrew Gillen, NETZSCH** New Software for Thermal Simulation of Curing Reactions in Large Volumes	Keynote Speaker
1710 - 1725	**Thēātin van Leeuwen, University of New South Wales** Polymer-metal oxide nanoformulation to adsorb hydrogen sulfide from Fusobacterium nucleatum for improved bowel health			**Assoc. Prof. Angus Johnston, Monash University** Precisely targeted dendrimers: Maximising delivery and uptake in tumours

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1730 - 1815	**RAPID FIRE Session** **Chair:** Assoc. Prof. Georgina Such	**Millennium Ballroom**
1735 - 1738	**HaokunShen, University of New South Wales** Fast responding and multi-environment functional hydrogel actuators enabled by surface coating of thermo-responsive polymers	
1738 - 1741	**Yen Vo, University of New South Wales** Effects of drug conjugation on the biological activity of single-chain nanoparticles	
1741 - 1744	**Anna Bednarowicz, Lodz University of Technology** Collagen-based freeze-dried foam-like structure with a programmed porous structure	
1744 - 1747	**Nina Tarzynska, Lodz University of Technology** Hyaluronic-based freeze-dried foam-like structure enriched with active compounds	
1747 – 1750	**Mengnan Zhang, University of New South Wales** Biomimetic Electronic Skin through Hierarchical Polymer Structural Design	
1750 - 1753	**Manpreet Kaur, Flinders University** Plasma-polymer coated cellulose membranes for environmental Nanoplastics isolation and quantification	
1753 - 1756	**Kensuke Suga, Kyoto University** Dual Ratiometric Fluorescence Monitoring of Mechanical Polymer Chain Stretching and Subsequent Strain-Induced Crystallization	

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1756 - 1759	**Kewei Cai, Deakin University** Computational Understanding of Poly (ionic liquids) for Solid-state Battery Applications	
1759 - 1802	**Jingwen Yang, The University of Auckland** Development of smart wound-healing device based on conducting polymers	
1802- 1805	**Dr Jacopo Giaretta, The University of Sydney** A miniaturised and flexible sensor for fatty acid detection	
1805 - 1808	**Katayoun Nazemi, Monash Institute of Pharmaceutical Sciences** Triggered and tuneable H2S release from star polymers with acyl-protected perthiol in the core	
1830 - 1910	**Annual General Meeting**	**Tasman 1**
1830 – 2000	**Student Night**	**Sweat Shop Brew Kitchen** *(17 mins walk from Grand Millennium Auckland)*
1830 - 2030	**E/MCRs Night Out**	**The Fiddler Irish Bar** *(14 mins walk from Grand Millennium Auckland)*

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Wednesday 21 February 2024		
0830 - 1630	**Registration Desk Opens**	**Atrium Lounge**
0800 - 1430	**Speaker Room Opens**	**Boardroom**
0830 - 1545	**Exhibitor Opens**	**Prefunction Area**
	Plenary Session	**Millennium Ballroom**
0900 – 0910	**Welcome Day 4 and Housekeeping** Professor Luke Connal	
0910 - 0955	**Plenary Presentation 4 -** Professor Rachel Segalman, University of California **Electrostatically stabilized polymers for batteries**	
0955 - 1025	**Morning Refreshments & Trade Exhibition**	**Atrium Lounge & Prefunction Area**

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	Polymer of Health	**Biomaterials** *With thanks to our ECR Lectures Sponsor* Anton Paar	**Polymers in Industry and Translational Research** *With thanks to our Theme Sponsor* DAVIES COLLISON CAVE	**Composite Materials and Additive Manufacturing**
Location	Millennium Ballroom	Tasman 1	Tasman 2	Coromandel
Chair	Dr Kristian Kempe	Assoc. Prof. Brooke Farrugia	Professor Darren Martin	Professor AJ Boydston
	Keynote Speaker	Keynote Speaker	Keynote Speaker	
1030 - 1100	**Dr Jessica A. Kretzmann, The University of Western Australia** Programming DNA origami for biological applications	**Assoc. Prof. Jessica Frith, Monash University** Using biomaterials to modulate cell fate, communication and regenerative potential	**Dr Jekaterina Viktorova, Syenta** From Lab to Market: The Journey of Syenta's Electrochemically Printed Electronics Innovation	

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1100 - 1115	**Professor Jadranka Travas-sejdic, The University of Auckland** Electrically addressable materials for health	**Shirin Nour, University of Melbourne** Molecularly engineered bio-interfaces by presentation of nano-islands of cell-adhesive peptides on polymer surfaces to improve muscle cell behaviour	**Dr Ramon Tozer, DCC** Why seek patent protection for your R&D – is it worth all the effort?'	**Dr Vipul Agarwal, University of New South Wales** Fabrication and Application of Mixed Ionic–Electronic Conducting Polymer Nanocomposite Coatings
1115 - 1130	**Amal Jayawardena, University of Melbourne** SNAPP: Unveiling the Inner Workings of a Class of Promising Antibacterial Polymers	**Amber Prior, The University of Queensland** Understanding polymeric nanoparticle accumulation in tumours using dynamic microfluidic systems	Keynote Speaker	**Dr Valentin Bobrin, The University of New South Wales** Customized Nanostructured Ceramics via Microphase Separation 3D Printing
1130 – 1145	**Yurong Zhang, The University of Melbourne** Antimicrobial N-Carboxyanhydride-Derived Polypeptide Functionalized Surfaces	**Dr Ilze Donderwinkel, The University of Queensland** Colloidal hydrogel library via high throughput rapid one-pot sequential aqueous RAFT (rosa-RAFT)	**Professor Michael F. Cunningham, Queen's University** Amphiphilic Block-Random Copolymers as Stabilizers in Emulsion Polymerization	**Dr Mitchell Nothling, University of New South Wales** Making Polymers with a Hammer: Mechanically activated solid state radical polymerization via piezocatalysis

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1145 - 1200	**Dr Duc Nguyen, The University of Sydney** Polymer Superparamagnetic Iron Oxide Nanorattles	**Dr Peter Wich, University of New South Wales** Enzyme-Bioink for the 3D Printing of Biocatalytic Materials	Keynote Speaker **Dr Alec Foster, Scion** From Polymer R&D to Industrial Impact	**Zhen Wang, University of Cambridge** Photonic Pigments from Biocompatible Bottlebrush Block Copolymers
1200 – 1215	**Lakshani Perera, Queensland University of Technology** A simple method for suppressing the cloud point temperature of poly(2-ethyl-2-oxazoline)	[redacted]		[redacted]
1215 - 1315	**Lunch & Trade Exhibition**			**Atrium Lounge & Prefunction Area**

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	Polymer of Health	Biomaterials *With thanks to our ECR Lectures Sponsor* Anton Paar	Polymers in Industry and Translational Research *With thanks to our Theme Sponsor* DAVIES COLLISON CAVE
Location	Millennium Ballroom	Tasman 1	Tasman 2
Chair	Dr Cameron Evans	Dr Jan Lauko	Dr Tim Davey
	Keynote Speaker	Keynote Speaker	Keynote Speaker
1320 - 1350	**Dr Kristian Kempe, Monash University** Expanding the Toolbox of Synthetic Stealth Polymers: PEG Alternatives, and their Tuneable Interactions with Biological Systems	**Assoc. Prof. Jenny Malmstrom, University of Auckland** Engineering soft materials to study cell-material interactions	**Professor Darren Martin, The University of Queensland** Project NURTURE - "From waste to harvest" An NSF Convergence Accelerator project
1350 – 1405	**Yufu Wang, The University of Melbourne** Photochromic and redox responsive nanoparticle by emulsion polymerization of thiol and diarylethene	**Professor David Nisbet, University of Melbourne** Self-assembling peptide hydrogels to avoiding tissue overgrowth within progenitor cell grafts	**Vito Giorgio, Dow Coating Materials** Polymers for paper barrier coatings – applications and challenges

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1405 - 1420	**Professor Jorge Morgado, Instituto de Telecomunicações** Effect of the molecular structure of oxetane additives on the enhancement of PEDOT:PSS films aqueous stability and conductivity	**Dr Arif Gulzar, The University of Queensland** Chelator Free Radiolabeling of PEGylated Graphene Nanosheet	**Dr Vien Huynh, University of Melbourne** Washable Polymer Coating for Agrochemicals: Transitioning a Lab Bench to Pilot Scale
1420 - 1450	**Afternoon Refreshments & Trade Exhibition**		**Atrium Lounge & Prefunction Area**
	Plenary Session		**Millennium Ballroom**
1455 - 1540	**Plenary Presentation 5 -** Professor Kristofer Thurecht, The University of Queensland		
1540 - 1600	**Awards Presentation & Symposium Conclusion** Assoc. Prof. Georgina Such, University of Melbourne		
1900 - 2300	**Symposium Dinner**		**Wētā Workshop Unleashed** *(13 mins walk from Grand Millennium Auckland)*

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