





# Workshop on Targeting Tissue, Melbourne, Australia









## Thursday 31st January

TIME	AGENDA	SPEAKER
13:00	Start of Workshop	
	Welcome / Agenda and Aim of Workshop Introduction of Participants	Thomas Scheibel Melanie Pöhlmann
13:20	Flash Talk Session -DRUG DELIVERY-	
	Drug Delivery Pitch 1 Drug Delivery Pitch 2 Drug Delivery Pitch 3 Drug Delivery Pitch 4 Drug Delivery Pitch 5 Drug Delivery Pitch 6 Drug Delivery Pitch 7 Drug Delivery Pitch 8 Discussion ( Strengths, Challenges, Synergies)	Greg Qiao Frank Caruso Thomas Scheibel Francesca Cavalieri Anna Cifuentes Boon Teo Georgina Such Kristian Kempe Frank Caruso
14:10	Flash Talk Session -ANTIMICROBIAL SURFACES-	
	Antimicrobial Surfaces Pitch 1 Antimicrobial Surfaces Pitch 2 Antimicrobial Surfaces Pitch 3 Antimicrobial Surfaces Pitch 4 Antimicrobial Surfaces Pitch 5 Discussion (Strengths, Challenges, Synergies)	Helmut Thissen Greg Qiao Thomas Scheibel Andrea O'Connor Laurence Meagher <b>Greg Qiao</b>
14:45	-AFTERNOON TEA-	
15:15	Flash Talk Session -TISSUE ENGINEERING-	
	Tissue Engineering Pitch 1 Tissue Engineering Pitch 2 Tissue Engineering Pitch 3 Tissue Engineering Pitch 4 Tissue Engineering Pitch 5 Tissue Engineering Pitch 6 Tissue Engineering Pitch 7 Tissue Engineering Pitch 8 Tissue Engineering Pitch 9 Tissue Engineering Pitch 10 Tissue Engineering Pitch 11 Discussion (Strengths, Challenges, Synergies)	Veronica Glattauer Andrea O'Connor Greg Qiao Sally McArthur Namita Choudhury Harald Janoviak Caroline Gargett Brooke Farrugia Daniel Heath Neil Cameron John Forsyth Andrea O'Connor







16:25	Flash Talk Session - BIOFABRICATION -	
	Biofabrication Pitch 1	Thomas Scheibel
	Biofabrication Pitch 2	Gregor Lang
	Biofabrication Pitch 3	Sahar Salehi
	Discussion (Strengths, Challenges, Synergies)	<b>Thomas Scheibel</b>
16:45	Round Table	
~17:00	End of Workshop	

## Friday 1st February

TIME	AGENDA	SPEAKER
09:00	1st February 2019 START 9:00	
	Wrap Up 1st Day & Focus / Aim 2nd Day	Qiao/ Scheibel
09:15	Funding Opportunities	
	International Training Research Groups (IRTG DFG funded scheme)	Melanie Pöhlmann
	Funding Opportunities in Australia Discussion	Rep. Uni Melbourne
09:45	Infrastructure, Centers and Projects at Partner Sites ( could be visited on 13th/14th February)	
	University of Bayreuth	Thomas Scheibel
	University of Melbourne	Qiao / O'Connor
	Monash University CSIRO	Neil Cameron Veronica Glattauer
	Swinburne University	Sally McArthur
	RMIT	Namita Choudhury
10:45	MORNING TEA	
11:15	Themed Round Table Discussions	
	Drug Delivery & Antimicrobial Surfaces	Group 1
	2) Tissue Engineering & Biofabrication	Group 2
	Summary of Results & Joint Discussion	
13:00	LIGHT LUNCH & END OF WORKSHOP	







#### **Venue for TARGETING TISSUE WORKSHOP**

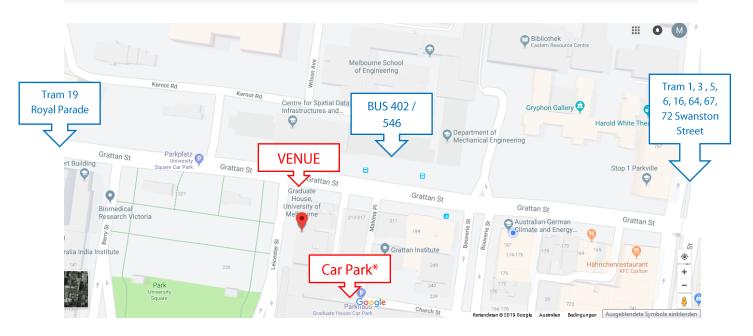


**Venue** Cochran & Talyor Room (on the right side after the reception)

<u>Graduate House</u> 220 Leicester Street Carlton, Victoria

**Time** Thursday 31st January 2019 – 13:00 -17:00

Friday 1st February 2019 – 9:00-12:30









#### **Scientific Workshop Organizers**



**Veronica Glattauer,** CSIRO

Biomedical Manufacturing, Cell Material Interactions Team Leader, Senior Research Scientist

Protein based Materials, Biomaterials and Tissue Engineering Science



Prof. Dr. Andrea O'Connor, The University of Melbourne
Tissue Engineering Group, Deputy Head of the School of Chemical and Biomedical Engineering
3D printing, antimicrobial materials, biofilms, biomaterials (Biodegradable materials, scaffolds, hydrogels), medical devices (Implants), tissue engineering



**Prof. Dr. Greg Qiao,** The University of Melbourne

Macromolecular Chemistry and Engineering, Assistant Dean (Research) in the Melbourne School of
Engineering, Deputy Head of the Department of Chemical and Biomolecular Engineering
Synthetic polymer science and engineering, polymerization techniques, nano- and hydrogels,
tissue engineering



**Prof. Dr. Frank Caruso,** The University of Melbourne

Department of Chemical Engineering, NHMRC Senior Principal Research Fellow, Deputy Director ARC

Centre of Excellence on Convergent Bio-Nano Science and Technology

Colloids and Interfaces



**Prof. Dr. Thomas Scheibel,** *University of Bayreuth Chair of Biomaterials, Faculty of Engineering Science Vice President Internationalisation, Gender Equality & Diversity*Protein-based Materials



**Prof. Dr. Gregor Lang,** University of Bayreuth
Biopolymer Processing, University of Bayreuth
Faculty of Engineering Science
Production and Processing of Natural and Bio-inspired Polymeric Materials



**Dr. Sahar Salehi,** University of Bayreuth
Biomaterials, University of Bayreuth
Junior Group Leader "Biomaterials for Tissue Engineering"
Biomaterials and Tissue Engineering Science







#### **Confirmed Speakers**



**Dr. Daniel Heath,** The University of Melbourne
Biomaterials and Tissue Engineering, Biomedical Engineering
Blood-material interactions, Decellularization, Endothelialization of biomaterials, Extracellular matrix materials



**Dr. Francesca Cavalieri,** The University of Melbourne
Chemical and Biomolecular Engineering, The University of Melbourne
Vice Chancellor Senior Fellow, Faculty of Science, RMIT University
Biomaterials Synthesis and Characterization, Cell-Biomaterials Interaction, Supramolecular
Assembly of Natural & Synthetic Polymers



**Dr. Georgina Such,** The University of Melbourne Senior Lecturer School of Chemistry Nanotechnology, Polymers and Self-Assembly, Biomedical Engineering



**Dr. Anna Cifuentes (Prof. Nico Völcker group)**, *Monash University* Scientific Director, Melbourne Center for Nanofabrication and *Monash Institute of Pharmaceutical Sciences (MIPS) / CSIRO* Nanotechnology, Biomaterials, Biosensors, Drug Delivery



**Dr. Helmut Thissen,** CSIRO Manufacturing
Team Leader, Biomedical Manufacturing
Control of biointerfacial interactions for applications in medical devices and biosensors



Professor Neil Cameron, Monash University

Acting Head, Materials Science and Engineering

Department of Materials Science and Engineering

Novel polymeric biomaterials for application in areas including tissue engineering, regenerative medicine and drug delivery



A/Professor John Forsythe, Monash University
Associate Professor, Materials Science and Engineering
Department of Materials Science and Engineering
Scaffolds for brain and spinal cord repair, Nano-fibrous electrospun scaffolds, Interaction of stem cells on biopolymer substrates, Electrospinning, Light responsive hydrogels, Bioprinting



**Dr. Boon Mian Teo,** *Monash University Lecturer, School of Chemistry*Emulsion Polymerisation, Janus Particles, Pickering Emulstions, Sonochemistry, Ultrasound as diagnostics and therapeutic device, Microbubbles, Liposomes as Drug Carriers, Gold Nanoparticles









**Prof. Alan Lau,** Swinburne University

Pro-Vice-Chancellor (Research Performance and Development), Faculty of Science, Engineering and Technology Nanomaterials; Nanostructured Materials; Construction Materials; Nanostructured Materials



**Prof. Sally McArthur,** CSIRO & Swinburne University

CSIRO Research+ Science Leader Manufacturing; Biomedical Engineering

Materials, surface engineering, physical science, analytical chemistry and biochemistry, 3D tissue model systems as new in vitro test platforms for the biomaterials, pharmaceutical and medical/bio



**Prof. Namita Choudhury**, RMIT University

Professor of Engineering

technologies sectors.

Chemical and Environmental Engineering, School of Engineering Cluster

Polymer Engineering and Science, Colloid and Polymer Science, Interfacial Engineering, Surface Coating, Biomimetic Protein Polymer, Graphene hybrids & Ink, Elastic Gel, Advanced polymer for Energy and Biomedical Applications



**AProf. Harald Janoviak,** *Monash University Australian Regenerative Medicine Institute, Monash University*Interface of synthetic biology and mammalian physiology in the new research field synthetic physiology.



**Prof. Caroline Gargett,** Hudson Institute of Medical Research, Head, Endometrial Stem Cell Biology Laboratory, Professor and Postgraduate Coordinator, Department of Obstetrics and Gynaecology, Monash University, Deputy Director, The Ritchie Centre (Women's Health), Hudson Institute of Medical Research

Endometrial mesenchymal stem/stromal cells for a tissue engineering application in pelvic floor prolapse surgery



**Dr. Brooke Farrugia,** University of Melbourne
Senior Lebcturer University of Melbourne
Biomedical Engineering
Biomimetic materials, Mast Cells, Proteogylcans and Glycosaminoglycans, Tissue Regeneration & Wound healing



**Dr. Kristian Kempe**Group Leader Monash Institute of Pharmaceutical Sciences
Nanotechnology, Polymer Synthesis, Materials Chemistry



**Prof. Laurence Meagher** 

Deputy Director/Director of Research, Monash Institute of Medical Engineering & Professor, Materials Science and Engineering, Monash University

Medical Engineering, Materials Science, Surface modification, surface characterisation, biomedical implants, drug delivery, cell culture surfaces, surface initiated polymerisation, controlled radical polymerisation, antimicrobial materials, biomedical materials, electrospinning, biodegradable polymers, polymer brush coatings, atomic force microscopy, haemopoietic stem cells, mesenchymal stem cells, pluripotent stem cells, cell therapies, hydrophobic forces, bioactive small molecules, bioactive peptides, stem cell culture surfaces.







### **Attendees**

Prof. Jerome Werkmeister	The Ritchie Centre, Hudson Institute of Medical Research, Monash University
Prof. Naba Dutta	School of Chemical and Environmental Engineering, RMIT
Dr. Shayanti Mukherjee	Postdoctoral Scientist, Endometrial Stem Cell Biology, <i>Hudson Institute of Medical Research, Monash University</i> (Gargett Group)
Dr. Ashley Murphy	Postdoctoral Research Fellow, <i>Materials Science and Engineering Monash University</i> (Cooperation Partner Veronica Glattauer)
Dr Melissa Werrett	Post-Doc Prof. Phil Andrew's Group, School of Chemistry, Monash University
Dr Liam Stephens	Post-Doc Prof. Phil Andrew's Group, School of Chemistry, Monash University
Dr. Fatemeh Karimi	Post-Doc Prof. Greg Qiao's Group, Chemical Engineering, The Melbourne University
Dr. Javad Jafari	Post-Doc Prof. Andrea O'Connor's Group, Chemical Engineering, The Melbourne University
Kallyanashis Paul	PhD Candidate, PhD Student , <i>The Ritchie Centre, Hudson Institute of Medical Research, Monash University</i> , (Gargett Group)
David Sonnleitner	PhD Candidate, University of Bayreuth, <i>Biopolymer Processing, University of Bayreuth, Faculty of Engineering Science (Lang Group)</i>
Vanessa Trossmann	PhD Candidate, University of Bayreuth, <i>Biopolymer Processing, University of Bayreuth, Faculty of Engineering Science (Scheibel Group)</i>
Sarah Lentz	PhD Candidate, University of Bayreuth, <i>Biopolymer Processing, University of Bayreuth, Faculty of Engineering Science (Scheibel Group)</i>
Anika Prinz / Frank Caruso	Prof. Dr. Marc Schneider's Group, <i>Biopharmaceutics and Pharmaceutical Technology, Universität des Saarlandes</i> (Germany); Visiting Student Frank Caruso's Group, <i>The University of Melbourne</i>
Dr. Melanie Pöhlmann	Project Coordinator Bayreuth-Melbourne Colloid-Polymer Network, <i>International Office, University of Bayreuth</i>





