# THE HERSON BIOFABRICATION INSTITUTE

## **Inaugural Conference 2019**



Metro North Hospital and Health Service Putting people first



### 2019 Herston Biofabrication Institute Conference - Speakers



#### Dr Mark Allenby

QUT Advance Queensland Fellow - Vascular Program Biofabrication for personalised vascular surgery prognosis, training, and treatment



#### Dr Catherine Ball

Scientist, Innovator, Champion of Diversity, MC



#### Dr Arixin Bo QUT ECR

Mechanical property investigation of PCL based scaffolds and composite

MNHHS/QUT - Cancer Care Clinical Program Lead

Improving radiation oncology with 3D printing and



Dr Jason Brown MNHHS - Burns Clinical Program Lead Biofabrication in Burns Treatments

Adj A/Prof Scott Crowe

biofabrication

A/Prof Leila Cuttle





Ms Mathilde Desselle QUT HBI Project Manager Augmented and virtual reality serious games -The Hospital of the Future

QUT Lead Researcher - Burns Clinical Program

Treating burn wounds - past, present and future



scaffolds



Mr David Forrestal OUT FCR Bioreactors for cell culture of large patient-specific



Mr Nicholas Green MNHHS – Orthopaedic Clinical Program 3D Modelling Workshop

Prof Damien Harkin

Mr Icaro Ibanez-Arricivita

**QUT Fashion & Design Lecturer** 



Prof YuanTong Gu QUT Lead Reseracher - Vascular Clinical Program Computer-aided optimal design, analysis and

assessment of customized stents and scaffolds

QUT Lead Researcher - Tissue Regeneration

Reconstruction of Skin and Ocular Tissues





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Hospital of the Future Fashion Collection Dr Jason Jenkins MNHHS - Vascular Clinical Program Lead

Driving Clinical Innovation through Partnerships





















QUT PhD student - 3D Scanning & Modelling for Microtia Treatments

Dr Nicholas Rukin MNHHS - Urology Clinical Program Lead Biofabrication and urological surgery

MNHHS - Orthopaedics Clinical Program Lead

Dr Kevin Tetsworth

**Biofabrication in Orthopaedics** 

A/Prof Makrina Totsika

Metro North Hospital and Health Service

QUT Lead Researcher - Infection

Infections and antimicrobial resistance:





Institute

Prof Mia Woodruff QUT Acting Director HBI Introduction to the Herston Biofabrication

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Biofabrication implications in a post-antibiotic era

#### Dr Asha Mathew QUT Advance Queensland Fellow - Orthopaedics Biofabrication of bactericidal orthopaedic implants



Prof Mark Midwinter UQ, Jamieson Trauma Institute AR for Telepresence

Dr Elena Juan Pardo

Mr Matthew Lanaro

Biomaterials and Medical Devices

QUT PhD student

Prof Zhiyong Li

research programs

QUT Lead Researcher - Vascular Clinical Program

Advanced Additive Manufacturing Methods for

QUT Lead Researcher - Vascular Clinical Program

QUT Cardiovascular Engineering Laboratory

Miss Naomi Paxton QUT PhD student Biomaterials for Patient-Specific Surgical Implants

Dr Sean Powell



	2019 Herston Biofabrication Institute Conference – Program		
8:55am– 10:30am	INTRODUCTIONS   Conference MC: Dr Catherine Ball Welcome to Country Official Welcome   Hon Cameron Dick MP, Minister for State Development, Manufacturing, Infrastructure & Planning Welcome from QUT   Prof Arun Sharma, Deputy Vice-Chancellor and Vice President (Research and Innovation) Welcome from MNHHS   Mr Shaun Drummond, CEO MNHHS Introduction of Herston Biofabrication Institute   Prof Mia Woodruff, Acting Director of HBI Introduction to Medical Device Innovation Design Challenge Keynote Speech   Mr Dale Trevor	All-Day Sponsor Exhibition & Poster Display   Foyer	
10:30am – 11:00am	3D Modelling Workshop   Room   MORNING TEA   Poster Session 1   VR Hospital of the Future Game   Recruitment Speed Dating Even	Room 2	
11:00am– 12:45pm	BURNS CLINICAL PROGRAM   Dr Jason Brown   Driving Clinical Innovation through Partnerships   Dr Sean Powell   3D Healthcare Technologies for Better Burns and Trauma Treatment   A/Prof Leila Cuttle   Treating Burn Wounds - Past, Present and Future   Prof Damien Harkin   Reconstruction of Skin and Ocular Tissues   Ms Maureen Ross   Biofabrication approaches to Facial Prostheses and Other Medical Devices   Dr Mark Midwinter, Jamieson Trauma Institute   Augmented and Virtual Reality in Clinical Practice - A Future Norm   ORTHOPAEDIC CLINICAL PROGRAM   Dr Kevin Tetsworth   Biofabrication for Orthopaedic Surgery   A/Prof Travis Klein   Biofabrication of Bactericidal Orthopaedic Implants   Dr David Forrestal   Bioreactors for Cell Culture of Large Patient-Specific Scaffolds   Mr Matthew Lanaro   Advanced Additive Manufacturing Methods for Biomaterials and Medical Devices   Ms Naomi Paxton   Biomaterials for Patient-Specific Surgical Implants	All-Day Sponsor Exhibition & Poster Display   Foyer	
12:45pm– 1:45pm	LUNCH   Poster Session 2 Recruitment Speed Dating Even		
1:45pm- 3:30pm	VASCULAR CLINICAL PROGRAM   Dr Jason Jenkins   Biofabrication for Vascular and Endovascular Surgery   Prof YuanTong Gu   Computer-aided Optimal Design, Analysis and Assessment of Customized Stents and Scaffolds   Dr Elena Juan Pardo   Advanced Biofabrication Strategies for Cardiovascular Applications   Prof Zhiyong Li   QUT Cardiovascular Engineering Laboratory Research Programs   Dr Mark Allenby   Biofabrication for Personalised Vascular Surgery prognosis, Training and Treatment   Dr Arixin Bo   Mechanical Property Investigation of PCL Based Scaffolds and composite   Medical Device Innovation Design Challenge   Award sponsored by Cook Medical & Konica Minolta	All-Day Sponsor Exhibition & Poster Display	
3:30pm- 3:50pm	AFTERNOON TEA   Poster Session 3 - Poster Award sponsored by Konica Minolta		
3:50pm– 5:00pm	A/Prof Makrina Totsika   Infections and Antimicrobial Resistance: Implications for Biofabrication in the post-antibiotic era   Dr Nick Rukin   Biofabrication and Urological Surgery   Adj A/Prof Scott Crowe   Improving Radiation Oncology with 3D Printing and Biofabrication   Hospital of the Future Fashion Collection   Award Presentation   Mr Shaun Drummond & Sponsors   Conference Close & Vote of Thanks	Foyer	
5:00pm– 6:00pm	NETWORKING DRINKS sponsored by Microsoft		

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#### 2019 Herston Biofabrication Institute Conference - Special Sessions



Hospital of the Future Fashion Collection A collection of hospital of the future-inspired clothing for

staff and patients Presented by QUT Creative Industries students (Fashion

Design Studio 5 DFH501 unit), Directed by Icaro Ibanez-Arricivita



Medical Device Innovation Design Challenge Addressing clinical challenges from HBI Clinical Programs Presented by QUT



Industry Speed Dating Session Industry and student networking opportunities

In partnership with the QUT Fellowship of Medical Engineers (FoMe)



The Hospital of the Future in Augmented and Virtual Reality

#### Microsoft Hololens and HTC Vive games demo

With Mathilde Desselle, in partnership with QUT EECS Games Design and Interactive Environments (BGIE)



#### Anatomical 3D Modelling Workshop

From 3D imaging data to patient-specific devices and implants

Presented by Nick Green, QUT Industrial Design Alumni, 3D Medical Modeller at RBWH

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