Technology in Research
SMHS Research Showcase 2019
Thursday 28 November 2019
Education Building, Fiona Stanley Hospital

Sponsors:
CSIRO,
Harry Perkins Institute of Medical Research

Program
CSIRO Breakfast Research Forum: Research Potential of Emerging Technologies

Sponsor: CSIRO  
Venue: Room G7 Education Building, Fiona Stanley Hospital  
Time: 7.30am to 9.30am

Refreshments provided  
Bookings essential: Eventbrite – Breakfast Research Forum

Chair: Dr Hannah Seymour, Medical Director, Service 3, FSH  
Presenters: Dr Omar Khorshid, Consultant Orthopaedic Surgeon, FH  
Mr Aaron Berghuber, Digital Innovation Lead for State Adult Burns Service, FSH  
Dr Wei-sen Lam, Consultant Medical Oncologist FSH and Director Medical Oncology WACHS

CSIRO is Australia’s national science research agency. At CSIRO, we solve the greatest challenges using innovative science and technology. For around a century we have been pushing the boundaries of what is possible in science and technology. But it’s tomorrow’s innovations that excite us – wearable technology that alerts a doctor when you are sick, diets based on your DNA and so much more. Everything we do is focused on creating measurable economic, environmental and social benefits that better our world and Australia’s place in it.
SMHS Innovation Presentation: Kaartdijin: Big Dreaming – What is it all about?

Venue: Room G1 Education Building, Fiona Stanley Hospital
Time: 10.00am to 11.00am

- Innovation Pitches – Ask the Innovator questions and place your vote
- Let’s Try It – Collective audience idea submission

*WARNING: Active Participation Expected*

Presenters: Hazel Hudson (SMHS Innovation Consultant)
Chloe Goodred (SMHS Innovation Consultant)
and Guests
Opening Ceremony

Venue: Room G1 Education Building, Fiona Stanley Hospital  
Time: 12.30pm to 1.30pm  

- **Opening remarks** – Mr Paul Forden, Chief Executive SMHS  
- **Keynote address** – Dr James Williamson, Assistant Director General, Clinical Excellence Division, Department of Health  
- **Keynote address** – Associate Professor Andrew Maiorana, Professional Lead, Exercise Physiology, FSH

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**Keynote speakers**

**James Williamson**

James Williamson is Assistant Director General of the Western Australian Health Department leading the Clinical Excellence Division. After graduating in medicine from Edinburgh University he completed his PhD at the Walter & Eliza Hall Institute before returning for post-doctoral training in stem cell biology and gene targeting. He then specialised in scleroderma and pulmonary hypertension, conducting the first human trial of an endothelin receptor antagonist in Sydney. In Perth he introduced acute medical units, established the WA Drug Evaluation Panel and was appointed Clinical Lead for the State eHealth Program and the Musculoskeletal Health Network. He has served the Royal Australasian College of Physicians as Chair of the Specialist Advisory Committee in General Medicine and member of the Committee for Physician Training. He is a member of NHMRC Council and is passionate about supporting health research and innovation in WA.

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**A/Prof Andrew Maiorana**

Andrew is a Clinical Exercise Physiologist, with over 20 years’ experience working in the fields of cardiac rehabilitation and heart failure management at Royal Perth and Fiona Stanley Hospitals. His research focuses on developing innovative approaches for improving health outcomes in people across the spectrum of cardiovascular disease, from primary prevention through to advanced heart failure. Andrew holds an appointment as a Research Academic with the School of Physiotherapy and Exercise Science at Curtin University.
Podium Presentations

Venue: Room G1 Education Building, Fiona Stanley Hospital
Time: 1.30pm to 2.00pm
Chair: Miss Helen Douglas, Consultant Burns Surgeon, FSH
Presenters:

- Wes Allen, Research Associate BRITElab, UWA. *MEprobe for visualisation of residual tumour in breast cancer*
- Dr Mark Johnson, Consultant Anaesthetist, FSH. *Can nasal oxygen cannula at high-flow compete with “Optiflow”?*
- Dale Edwick, Senior Physiotherapist State Adult Burn Service, FSH. *Electrical stimulation improves healing in acute minor burn injury, as measured by bioimpedance spectroscopy: A single centre, randomised, controlled trial*

Consumers in Research

Venue: Room G1 Education Building, Fiona Stanley Hospital
Time: 2.00pm to 2.45pm
Chair: Dr Ed O’Loughlin
Presenters:

- Pip Brennan, Executive Director, Health Consumers Council WA
- Ben Horgan, Consumer Advocate, SMHS
- Tony White, Engineer, Major Burn Survivor

Afternoon Tea

Venue: Ground Floor Foyer
Time: 2.45pm to 3.00pm
Refreshments provided
Technology Expo

Venue: Room G7 Education Building, Fiona Stanley Hospital
Time: 3.00pm to 5.00pm

Come and experience the potential emerging technologies such as virtual reality, digital image capture, telehealth and artificial intelligence in health research.

Triaging in mass casualty incidents using virtual reality
Brennan Mills, Edith Cowan University

TeleTrials: Improving Equity of Access for Country Patients
Hui Ling Lau, WA Country Health Service

Virtual reality in medical education
Ali Fardinpour, Wise Realities

Clinface: 3D images for precision medicine
Petra Helmholtz, Curtin University

First Aid in VR and St John’s Ambulance with St John WA
Jeremy Burton, St John’s Ambulance

Artificial intelligence for diagnosing eye disease, e-Consent and Mobile Image Communication Exchange app
Yogi Kanagasingam, Australian e-Health Research Centre, CSIRO and Graeme McLeod, State Adult Burn Centre, FSH
Novice Investigator
Three Minute Project Competition

Venue: Room G1 Education Building, Fiona Stanley Hospital
Time: 3.00pm to 4.00pm
Chair: Associate Professor Dale Edgar, Senior Physiotherapist, State Adult Burns, FSH

Presenters:

- **Dr Katherine Collins** Resident, Neonatology, FSH. *Restoring Neonatal Gut Biodiversity and Mucosal Immunity after Postnatal Antibiotics Exposure*

- **Dr Ragu Krishnamoorthy** Registrar, Oral and Maxillofacial Surgery, PCH. *Can Contrast Enhanced Ultrasound accurately detect malignant cervical lymph nodes*

- **Dr Samir Deshmukh** Registrar, Neonatology, FSH. *Comprehensive Understanding of inflammation during Pregnancy and early life and Infant immune Development*

- **Lauren Chasland** PhD Candidate, Exercise Physiology, UWA. *Effects of testosterone and exercise on body composition in men*

- **Holly Richmond** Honours Student, Population Health, UWA. *Otitis Media: Prevalence and risk factors among urban Aboriginal children*

- **Dr Meghana Ghanawat** Neonatal Fellow, Neonatology, FSH. *Randomized controlled trial of probiotics in pregnancy and infant allergy outcomes at 2 years of age*

- **Dr Michael Lim** Inflammatory Bowel Disease fellow, Gastroenterology, FSH. *Impact of body composition on outcomes in patients with Inflammatory Bowel Disease*

- **Dr Alexandra Kang** Registrar Anatomical Pathology, FSH. *Identification of Tetrancleotide Microsatellite Instability (EMAST) in Colorectal Tumours*

- **Anna Scheer** PhD candidate, Physiotherapy and Exercise Science, Curtin University. *Water-based exercise training for patients with coronary heart disease*

- **Lisa Smart** PhD Candidate, Centre for Clinical Research in Emergency Medicine. *Gelatine FLUID increases markers of kidney injury AFTER cardiac surgery*
Podium Presentations

Venue: Room G1 Education Building, Fiona Stanley Hospital
Time: 4.00pm to 5.00pm
Chair: Associate Professor Helen Keen, Head of Department, Rheumatology, FSH

Presenters:

- **Dr Andrew Redfern**, Consultant Medical Oncologist, FSH. *The Perfect Storm: Bad Biology Meets Challenging Geography in Aboriginal Breast Cancer.*

- **Dr Alex Wycherley**, Consultant Anaesthetist, FSH. *Cannula cricothyroidotomy in emergency airway simulations using live anaesthetised pigs.*

- **Mr Kevin Trentino**, Data and Digital Innovation, EMHS. *Costs associated with a pre-operative iron deficiency anaemia clinic.*

- **Mr Nacho Suarez**, PhD Candidate, Curtin University. *Effects of different intensity exercise training in patients with LVADs*

- **Mr Piers Truter**, Advanced Scope Physiotherapist, FSH. *Developing evidence for a virtual fracture clinic at Fiona Stanley Hospital*
Closing Ceremony and Awards Presentation

Venue: Room G1 Education Building, Fiona Stanley Hospital
Time: 5.00pm to 6.00pm

- Opening remarks – Professor Merrilee Needham, Consultant Neurologist, FSH and SMHS Clinical Lead for Research
- Keynote address – Professor Yogesan Kanagasingam, Research Director, Australian e-Health Research Centre, CSIRO
- Keynote address – Professor Girish Dwivedi, Consultant Cardiologist FSH, Wesfarmers Chair in Cardiology, Harry Perkins Institute of Medical Research/ UWA

Keynote speakers

Professor Yogesan Kanagasingam
Prof Yogesan leads the Australian Telehealth Research and Development Team, part of CSIRO’s Australian e-Health Research Centre. He is an Adjunct Professor at the University of Notre Dame Medical School and a visiting scholar at Harvard University. Prof Yogesan pioneered research in the development of an eye test for early detection of Alzheimer’s disease. Prof Yogesan was recently awarded Achiever of the Year for his contribution to WA’s Innovation and ICT industry. He was also WA finalist for Australian of the Year in 2015. Three of his innovations, the EyeScan device, the Remote-I smart health system, and Check-I vision testing have been put into use around the globe. He has won inventor of the year awards for developing ophthalmic imaging devices and computer-aided vision.

Professor Girish Dwivedi
Professor Dwivedi’s background and training to date is unique and he is one of a few cardiologists in Australia who have advanced (level 3) multimodality imaging training. He has received accreditations in Cardiac Computed Tomography, Echocardiography, Cardiac Magnetic Resonance and Nuclear Cardiology including Positron Emission Tomography. Prior to his appointment as Wesfarmers Chair in Cardiology at the Harry Perkins Institute he was Clinician Scientist (Canadian Institute of Health Research New Investigator) and Consultant Cardiologist at the University of Ottawa Heart Institute (UOHI), Canada.
Harry Perkins Institute Networking Session

Sponsor: Harry Perkins Institute for Medical Research
Venue: Harry Perkins Institute, South Foyer
Time: 6.00pm to 8.00pm

Refreshments provided
Bookings essential:
Eventbrite – Harry Perkins Institute Networking Session

Since 1998, the Harry Perkins Institute of Medical Research has grown to become one of the nation’s leading adult medical research centres, where a close-knit team of more than 400 research and trial staff work together to defeat the major diseases that impact our community. Our teams investigate a wide range of diseases, with a strong focus on cancer, cardiovascular disease, diabetes and neurogenetic diseases. Our world-class scientists, doctors and researchers are inspired to pursue vital research initiatives to build a healthier future for everyone.