



**THE UNIVERSITY OF
AUCKLAND**
Te Whare Wānanga o Tāmaki Makaurau
NEW ZEALAND

**AUCKLAND
BIOENGINEERING
INSTITUTE**

ABI 2019 Research Forum #ABIRF19

Grafton Campus, Building 505, 21 February, 9am - 5pm

Time	Event		
08:15 - 09:00	Poster Set-Up		
09:00 - 09:05	Welcome and Housekeeping		
09:05 - 09:30	Introduction, ABI Director Peter Hunter		
09:30 - 10:30	Keynote 1 Empathic computing: systems that increase understanding Prof Mark Billingham		
10:30 - 11:00	Morning Tea		
11:00 - 11:45	Panel Discussion: Community Impact		
11:45 - 12:30	3-minute Thesis Presentations (AM)	Abdallah Hasaballa	Microstructurally motivated constitutive modeling of heart failure mechanics
		Pablo Cascón	ChewIt - an intraoral interface for discreet interactions.
		Andy Lo	Ionic mechanisms underlying triggered atrial activity under a TBX5-driven regulatory network
		Reza Sedehi	Effects of conductive tissue on capacitive wireless power transfer
		Zay Win	Arterial blood gases predict pattern of lung damage in mechanically ventilated patients where lung elastance cannot
		Bahareh Madadkhahsalmassi	An organic electrochemical transistor for measuring blood glucose concentration in a jet injector
		Chris Walker	A connection-free strain sensor
		Mahsa Momtahan	Design and development of an ankle exoskeleton for human walking augmentation
		Thorben Pauli	Multivariate splines to estimate muscle-tendon lengths and moment arms in the upper limb
		Qichang Mei	The influence of foot morphology on foot biomechanics
12:30 - 13:00	Poster Session 1		
13:00 - 14:00	Poster Session 1 and Lunch		
14:00 - 15:00	Keynote 2 Context is everything: A future of medicine (and the MedTech CoRE) Prof Geoff Chase (Uni of Canterbury MedTech CoRE Deputy Director)		
15:00 - 15:45	3-minute Thesis Presentations (PM)	Elias Soltani	Modelling thermoregulation of the human body
		Kevin Jamart	Novel structural analysis for atrial fibrillation characterization
		Saeed Alighaleh	New foundation for pacing the stomach
		Daniel Addo	Optimizing the removal of conduit vessel signals in arterial spin labelling magnetic resonance imaging
		Nick Do	Design of a portable pulsed power system for needle-free jet injection
		Amir Rastar	Simulation of gas mixing patterns in normal and abnormal respiratory airways
		Amy Garrett	Making muscle do more work
		Patrin Illenberger	An integrated self priming circuit with electret charge source
		Kieran Brennan	Jet injection depth monitoring using diffuse optical imaging
		Steph Khuu	Probing the mechanisms of muscle degeneration in cerebral palsy using agent-based modelling
15:45 - 16:45	Poster Session 2 and Afternoon Tea		
16:45 - 17:00	Closing Remarks and Prize-Giving		