18th International CellML Workshop
13 & 14 October, 2025
ABI, Level 9 conference room

	Monday 13 October		Tuesday 14 October		
09:00	**Arrival tea/coffee**				**09:00**
09:00 - 09:05	Welcome	Andre / David Nickerson	CellML and PMR usage in cardiac cell electrophysiology: a 2025 update	Michael Clerx	09:00 - 09:30
09:05 - 09:30	CellML and COMBINE	Andre / David Nickerson	Reproducibility of a digital twin of glimepiride for personalized and stratified diabetes treatment	Matthias König	09:30 - 09:35
09:30 - 10:00	libCellML	Hugh Sorby	Physiome Model Repository development update	Tommy Yu	09:35 - 09:50
			Discussion on the future of Physiome Model Repository	Everyone Chair: Peter Hunter	09-50 - 10:00
10:00 - 10:30	**Morning tea**				**10:00 - 10:30**
10:30 - 10:45	SPARC portal	Alan Wu	CardioSim: GUI-based simulator for drug-toxicity evaluation	Aroli Marcellinus	10:30 - 10:45
10:45 - 11:00	Scaffolds	Richard Christie	12 Labours DigitalTWINS AI Platform - Enabling development and clinical translation of virtual human twins	Thiranja Prasad Babarenda Gamage	10:45 - 11:15
11:00 - 11:30	Applications of Circulatory Autogen	Finbar Argus	Annotation in CellML	Yuda Munarko	11:15 - 11:30
11:30 - 11:45	Beyond 0D simulation with CellML	Mohammad Shafieizadegan	Semantic annotation for biological computational models	Leo Willyanto Santoso	11:30 - 11:45
11:45 - 12:00	Benefits of having automatic gradients for CellML models	Rashmini Naranpanawa	Some AI tools at our disposal	Alan Garny	11:45 - 11:55
12:00 - 12:15	Parameter estimation and model composition based on semantic annotations	Weiwei Ai	AI-based modelling	Jagir Hussan	11:55 - 12:10
12:15 - 12:30	Discussion on parameter estimation	Everyone Chair: Finbar Argus	Discussion the use of AI in research	Everyone Chair: Hugh Sorby	12:10 - 12:30
12:30 - 13:30	**Break**				**12:30 - 13:30**
13:30 - 13:45	Update on the Physiome journal	Shelley Fong	How does the human heart age?	Vijay Rajagopal	13:30 - 14:00
13:45 - 14:00	Cell modelling with bond graphs	Peter Hunter			
14:00 - 14:15	Bond graph models in RDF	David Brooks	Myofibril networks induce shear stress	Liam Murray	14:00 - 14:15
14:15 - 14:30	Applications of metabolic flux analysis in parameterising bond graph models	Michael Pan	Lumped models of the fetal circulatory system in CellML	Gabriel Bernardino	14:15 - 14:30
14:30 - 14:45	Functional tissue unit of fluid and ion transport in the distal colon using bond graphs	Jarrah Dowrick	Computational modeling of the lymphatic system	Tharanga Don	14:30 - 14:45
14:45 - 15:00	Discussion on bond graphs	Everyone Chair: Jarrah Dowrick	Discussion on what should be done to get more modellers on board	Everyone Chair: Shawn Means	14:45 - 15:00
15:00 - 15:30	**Afternoon tea**				**15:00 - 15:30**
15:30 - 15:45	Work-loop simulations in CellML	Julia Musgrave	[lib]OpenCOR	Alan Garny	15:30 - 16:00
15:45 - 16:00	libCellML and OpenCMISS	Chris Bradley			
16:00 - 16:15	Model convertion to CellML using OpenCOR and deployed in Chaste	Shawn Means	Discussion on the future of [lib]OpenCOR	Everyone Chair: Andre / David Nickerson	16:00 - 16:30
16:15 - 16:30	Discussion on using CellML for multicellular modelling	Everyone Chair: Chris Bradley			
16:30 - 17:00	General discussion and daily wrap up	Everyone Chair: Peter Hunter	General discussion and closing remarks	Everyone Chair: Peter Hunter	16:30 - 17:00
17:00	**End of day**				**17:00**