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Australia drives digital transformation of biopharma sector with new ARC Hub

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To address key bioprocessing research challenges and develop new process and digital models



A new Australian Research Council (ARC) Hub to help forge an internationally competitive Australian biopharmaceutical sector using digitisation and artificial intelligence (AI) in pharmaceutical manufacturing has been launched at the University of Melbourne.

ARC Acting CEO, Dr Richard Johnson has officially launched the ARC Digital Bioprocess Development Hub – a five-year, $18 million research programme, which has received $5 million in ARC funding, to advance scientific knowledge and allow an interdisciplinary team of engineers, scientists and computing specialists to develop new capabilities. These will include digitally-integrated, advanced and innovative manufacturing processes that capture and use big data and provide a platform for industry adoption.

Australia's biopharmaceutical manufacturing industry supplies a rapidly growing domestic and international market for pharmaceuticals and vaccines, and its 2022 sector valuation of AUD $12 billion is expected to grow as an ageing population, the need for onshore manufacturing capability and the commercialisation of our medical research all converge.

The Hub involves collaboration between the University of Melbourne, University of Technology Sydney, RMIT University, global biotechnology company CSL, Cytiva and Patheon Biologics Australia, part of Thermo Fisher Scientific. It will also engage with Yokogawa Insilico Biotechnology, Mass Dynamics and Sartorius Stedim Australia, as well as international universities, including The University of Nottingham, Utrecht University and the University of Tartu (Estonia).

University of Melbourne Professor Sally Gras of the Faculty of Engineering and Information Technology (FEIT) will lead the Hub as its Director.

Image caption- Back row, left to right: James Atherton, Matthias Zimmermann, Kym Baker; CSL's Senior Vice President, Biopharmaceutical Product Development, Dr Anthony Stowers. Front row, left to right: University of Melbourne Deputy Vice-Chancellor (Research) Professor James McCluskey Professor James McCluskey; Professor Sally Gras, Dr Richard Johnson