Case Study



Accelerating the future of biomedical innovation in Australia



A SPARK Co-Lab Design team discussing their ideas at the Prototyping session. Photo by Nina Williams Photography

Since March 2017, Accelerating Australia has been working to advance the Australian early stage biomedical innovation ecosystem. It's 160 participants across four courses have gone on to win commercial grants, seed funding and placements in accelerator programs.

Accelerating Australia is promoting collaboration amongst researchers and boosting commercialisation through engaging courses and material, in line with MTPConnect's 10-year Sector Competitiveness Plan Growth Priorities to create a highly productive commercialisation environment.

Accelerating Australia has found that the academic culture must change, beginning with researchers. The program's courses aim to train academics to meet current and future market needs with investigator-led research priorities. A 19-strong life sciences consortium is leading the medical innovation programs, educating participants in all areas of early stage commercialisation. The programs take participants through identifying unmet needs, disease processes, stakeholders; and the processes of brainstorming, prototyping, clinical studies, regulatory strategy, reimbursement pathways, IP/legal, market, appraisal, business strategy, pivoting, pitching to investors and launching a start-up. Through these courses, Accelerating Australia is creating a culture of success by empowering researchers to take responsibility for project commercialisation as well as instilling translational efforts as second nature before and as research is being conducted.

Accelerating Australia has recorded some impressive results through its experiential training programs; brokering multidisciplinary collaborations, providing commercialisation advice, and raising awareness for biomedical entrepreneurial activities in the sector. Training courses run by Accelerating Australia's members included SPARK Co-Lab Design, the Centre for Entrepreneurial Research and Innovation (CERI) Entrepreneurial Mindset program, CERI's Concept to Creation program and the Monash Institute of Medical Engineering (MIME) SPARK course. Free commercialisation advisory sessions were also provided for budding biomedical innovators. Participants have made major progress throughout and since completing the training courses, which has seen them make inventive technological advances. Such success stories include the detection of early stage infections of orthopaedic implants, which is the focus of SPARK Co-Lab Design project spin-out, Biacor Pty Ltd with their AbyWinTM product. SPARK Design 2017 participant and Co-founder of Biacor Pty Ltd Martina Mariano said the course gave her an "environment" to flourish.

"The Design Course provided us with the opportunity to learn about the end-to-end innovation lifecycle and mature an appreciation of relevant complexities, nuances and risks," Ms Mariano explained.

"We feel that we have benefited from the course at many levels: access to highly regarded mentoring opportunities from established professionals in the medtech and biotech industries, support from concept

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development to commercialisation strategy definition, and a friendly environment to test our ideas and share our concerns.

"Our team has found also great synergies internally and decided to take the experience to the next level by forming the company - Biacor - and we are now focusing on continuing the R&D of AbYWin $^{\text{m}}$."

Other projects have also been successful in gaining placement in accelerator programs following their participation in Accelerating Australia's training courses. SPARK Design 2017 winners, NIMo, continued their success by receiving the Innovation Central Award and \$3,000 of seed funding at West Tech Fest's Startup Challenge, within weeks of finishing the Design course. SPARK Co-Lab Design 2017 participant and NIMo Co-Founder Amy Finlay-Jones described the experience as "opening up a world of possibilities."

"The Spark Co-Lab program has given us the confidence to pursue opportunities to develop our start-up and gain visibility in the digital health space," Ms Finlay-Jones said.

"We were recently very honoured to be selected for the "Innovation Central" award through West Tech Fest, which wouldn't have been possible without the support and mentorship offered by the Spark Co-Lab program."

CERI CEO Dr Carolyn Williams said the Entrepreneurial Mindset program provided participants with access into the mindset of entrepreneurs.

"Australia has a wealth of high-knowledge workers, across academia, research institutes, government and in private enterprise, who hold the promise of a new future," Dr Williams explained.

"By immersing participants in the fundamental aspects of how an entrepreneur thinks, CERI is working to open their minds to the unlimited possibilities of what they can achieve, often the exact opposite of what they think themselves capable of."

The courses received overwhelmingly positive responses from the national biomedical ecosystem being heavily oversubscribed by potential course participants. The multidisciplinary and hands-on nature of the courses has been recognized as a game changer for empowering biomedical innovators, and organisations across the country are calling for the ongoing national roll-out of these training programs. Further, multiple organisations have approached Accelerating Australia with a request to become members, sharing the passion for biomedical entrepreneurship. In the first six months of operation, Accelerating Australia has reported that two young scientists have become employed as a result of taking part in the SPARK Co-Lab Design course.

Accelerating Australia's Project Manager and SPARK Co-Lab Design Course Director Maud Eijkenboom said the courses were beneficial in giving participants the means for success.

"Sixty-five percent of startups in a VC portfolio fail because of team problems. Biomedical startups are under extra pressure because of the impact the technology can have on patients, the multidisciplinary nature of the projects and a highly regulated environment," Ms Eijkenboom added.

"In our courses, we give multidisciplinary teams a safe testing ground to invent, design and develop a solid business case for a new biomedical technology.

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"It is amazing what the teams achieve in a six-month time frame when supported by more than 70 business and Life Sciences mentors. We are very fortunate to have such great support from the biomedical community."

Nine researchers from the project consortium members were provided with scholarships to attend the SPARK Global Course in Tokyo, Japan, including Accelerating Australia's Senior Project Officer Elizabeth Johnstone. She described the course as an "extremely valuable two weeks."

"I met incredible mentors, and learnt some fascinating science. It was also very educational and enjoyable working alongside the diverse range of students," Ms Johnstone said.

"Through the project work and the inspiring lectures, I learned a new way of thinking and of problem solving – how to look at a problem from the outside, and to not immediately throw all your knowledge and biases at solving it."

Project details

Project name Accelerating Australia – Stage 1

Consortium lead Accelerating Australia

Consortium members CERI, The University of Western Australia, Monash University, University of Sydney,

SPARK Co-Lab Ltd, University of Technology Sydney, Proteomics International Limited, Orthocell Ltd, St John of God Healthcare, Avita Medical, Adelaide University, Murdoch University, Curtin University, Edith Cowan University, Harry Perkins Institute of Medical Research, Telethon Kids Institute, Lion's Eye Institute, Ear Science Institute of Australia, Perron Institute for Neurological and Translational

Science Limited

MTPConnect grant \$150,000 Industry contribution \$150,000

Project duration March 2017 – March 2018

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