

Case Study

Championing the future of biomedical innovation and design in Australia



Pictured: The NIMo team show off their early stage prototype after taking home the top prize at the final pitch night by RawImage.

The SPARK Co-Lab Design team, NIMo, have been on the fast track to innovation with their wearable device for the self-management of irritable bowel disease (or **Non-Invasive Monitoring**). At the SPARK Co-Lab Design final pitch night in November 2017, the team were awarded prizes from Ernst & Young, Wraays, CERI, AmCham, the Australia Israeli Chamber of Commerce (AICC), and regulatory expert Anthea Downs. And just three weeks later, NIMo went on to win the Innovation Central award at the West Tech Fest Startup Challenge.

It's hard to believe the NIMo team only met for the first time in May 2017, when the SPARK Co-Lab Design course first kicked off. Bringing together researchers, engineers, clinicians and business professionals, the Design course places participants in a clinical environment to observe the unmet needs of patients, doctors and clinical staff. The participants are placed in multidisciplinary teams to deep-dive into and solve these unmet needs, all while learning the process of innovation and commercialisation. Over six months, the teams learn about disease state, stakeholder analysis, intellectual property, prototyping, regulatory affairs, quality control, reimbursement strategy and de-risking. The course gives the participants the skill set to build an operational plan and a financial model, to utilise before the final pitch night where course mentors, biotech CEOs, stakeholders and investors heard the teams pitch and a panel of biotech and innovation experts crowned the winning team.

For NIMo, the key to standing out at the pitch night was their passion for the patients combined with an astute business case. The team showcased a working prototype, wowing the judges and audience, demonstrating that they were action orientated and highly capable.

NIMo team member Dr Amy Finlay-Jones, who spends the majority of her time researching Foetal Alcohol Syndrome at Telethon Kids Institute and running workshops on self-compassion, is an IBD patient herself.

"In our case, my experience having a chronic illness helped us to understand this particular problem from the patient's perspective," Dr Finlay-Jones explained.

"Balanced with clinical, technical, and commercial insights, this steered us towards a solution that we believe reflects empathy for the patient and addresses the need in an innovative, effective, and efficient way."

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NIMo's team clinician Marthe Smith, said the SPARK Co-Lab Design course provides an excellent resource for clinicians who may already have ideas for clinical solutions but need to learn the innovation pathway first.

"The Spark Co-Lab course provides a fantastic opportunity for clinicians to learn how to identify needs and to develop solutions for gaps in clinical practice or patient needs," Ms Smith added.

"Clinicians who have already identified potential solutions to problems can take the skills learned in the course to develop and commercialise the ideas they have.

"I think working as part of a multidisciplinary team with other people with non-medical backgrounds is very rewarding. I can certainly recommend this course to any clinician with an interest in learning more about innovation in the health field."

Innovations showcased at the SPARK Co-Lab Design pitch night included:

- Biacor won a prize, with technology for diagnosing early stage infections in orthopedic implants
- Giffy Tech reduces inadequate bowel preparation to avoid repeat colonoscopies and missed diagnosis
- Saludem Analytics' proprietary algorithm used standard medical scanning technology for the early detection of deep tissue pressure wounds
- Kinisi Labs' diagnostic device, used to diagnose developmental coordination disorder
- MoveMii designed a wearable device to optimise rehabilitation after total knee replacement

The SPARK Co-Lab Design course was funded by Accelerating Australia, a consortium of 21 life sciences organisations who are aiming to boost entrepreneurship and innovation; and promote collaboration amongst researchers, engineers, clinicians and business professionals through engaging course material. Accelerating Australia is in turn supported by funding from the MTPConnect Project Fund Program, with funding matched dollar-for-dollar by consortium members. The Design course will be rolling out nationally in 2018, beginning in Adelaide after receiving a further commitment of \$1 million for Stage 2 from MTPConnect.

Find out more at www.wearenimo.com and www.acceleratingaustralia.com.

Project details

Project name	Accelerating Australia – Stage 1
Consortium lead	Centre for Entrepreneurial Research and Innovation (CER)
Consortium members	Centre for Entrepreneurial Research and Innovation, Accelerating Australia, The University of Western Australia, Monash University, University of Sydney, SPARK Co-Lab, University of Technology Sydney, Proteomics International, Orthocell, St John of God Healthcare, Avita Medical, University of Adelaide, Murdoch University, Curtin University, Edith Cowan University, Harry Perkins Institute of Medical Research, Telethon Kids Institute, Lions Eye Institute, Ear Science Institute Australia, Perron Institute for Neurological and Translational Science
MTPConnect grant	\$150,000
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