What is the Rehabilitation Innovation Centre?

The Rehabilitation Innovation Centre (RIC) is a partnership between industry and research spearheaded by Callaghan Innovation, AUT University and the Burwood Academy of Independent Living.

The RIC brings together clinicians, end-users, researchers and industry stakeholders to identify common aims for the development of rehabilitation technology to promote a strong, vibrant rehabilitation technology industry and the health and well-being of people experiencing disability.

The RIC accelerates the development, commercial uptake and implementation of rehabilitation technologies. This is achieved by working collaboratively across sectors and institutions to bring a unique blend of scientific, design and clinical skills and expertise to each project.

The RIC has two nodes; one in the North Island and one in the South Island. The RIC North node is sited at AUT University and the RIC South is sited at the Burwood Academy for Independent Living.

This inaugural newsletter highlights the contributors to the RIC, summarizes feedback from the RIC concept launch in Wellington, details plans for a Standing Trials Population and outlines our Founding Projects.
Key contributors include:

Dr Diana Siew

Di is the National Sector Manager (Medical Technologies) for Callaghan Innovation. She has a wealth of experience in supporting and developing NZ’s medical technology sector to grow the economy through partnerships and collaborations between firms, researchers, end-users and government. Di is co-Chair of the Consortium of Medical Device Technologies and Associate Director of the MedTech Centre of Research Excellence.

Denise has particular expertise in rehabilitation for the arm and hand. With a background in health economics Denise is also focused on economic analysis of the impact of rehabilitation and assistive technologies.

Dr Denise Taylor

Denise is a professor in rehabilitation at AUT University. She has a clinical background in physiotherapy and neurorehabilitation with more than 25 years’ experience in the development and testing of novel rehabilitation strategies and technologies for adults and children with neurological disabilities and older adults.

Dr Nicola Kayes

Nicola is Director of the Centre for Person Centered Research at AUT. Her research explores the intersection between health psychology and rehabilitation, aiming to challenge conventional rehabilitation practice through the development of innovative strategies and technologies to promote engagement in rehabilitation. She explores the factors influencing engagement in rehabilitation and the development of innovative strategies for facilitating engagement for people with chronic disabling conditions.

Dr Nada Signal

Nada is a Senior Research Fellow at AUT. She has extensive physiotherapy and managerial experience in the rehabilitation sector. Nada’s research focuses on novel and theoretically-sound rehabilitation interventions for walking, including rehabilitation technologies. Nada is interested in how understanding the intersection between impairment, disability and participation restriction may inform the development of technologies.

Dr Deborah Snell

Deborah is a registered clinical psychologist. She has worked in neuropsychological rehabilitation for over 20 years and leads the Concussion Clinic at Burwood Hospital. She is the Academic Director of the Burwood Academy of Independent Living (BAIL) and the convener of the NZ Disability and Rehabilitation Research Alliance steering committee and a member of the NZ Rehabilitation Association executive committee.

Standing Trials Population

One of the identified challenges to medical technology development in NZ is limited collaboration between technology developers and end-user groups, such as patients, their family/whanau, clinicians and healthcare providers. One avenue for enhancing and accelerating collaboration in the development of rehabilitation technology is building a standing trials population. A standing trials population is a group of patients and clinicians who are willing to consider participating in iterative development and validation studies of rehabilitation technologies. The RIC is instigating a Standing Trials Population for the development of rehabilitation technologies. This will involve negotiated clinical access, willing patients recruited to a database and a focus on addressing ethical issues in technology testing. This will enable the RIC to be responsive and fast paced when working with industry and keep end-users at the heart of rehabilitation technology development.
Contributing to the vision of the RIC

On October 17th we held the first concept launch of the RIC in Wellington, timed to coincide with the AFRM/NZRA Rehabilitation Meeting. Future concept launch events are planned for Auckland and Christchurch in early 2016. The primary objective of undertaking a phase of concept launches is for the RIC to consult with stakeholders. The Wellington concept launch was hugely successful drawing more than forty attendees from rehabilitation technology industry, potential investors, patient and advocacy groups, rehabilitation and healthcare providers in the private and public sector, health and disability research funders and research organizations. The attendees provided valuable input into the vision of the RIC, identifying how the RIC could:

- promote common aims for the development rehabilitation technologies
- facilitate collaborations between industry, end-users and researchers
- accelerate the development, commercial uptake and implementation of rehabilitation and assistive technologies.

Here is a snippet of what was said...

- **Speed**
  - Fast fail mechanism...early testing to avoid lost investment $$

- **ACTION not words**
  - Early discussion with healthcare providers and health research funders
  - Don’t get bogged down in bureaucracy. Break down institutional barriers

- **Be explicit about expectations, outputs, and timeframes**

- **Translating quickly to ‘real world’ settings**
  - Communicate! Who, what, how, when. Use social media, clinical and industry networks

- **Focus on success factors**
  - “Standardize, streamline and speed up processes, like ethics, IP protection and partnership agreements”

- **Find mutual benefit. Contribution must have tangible benefits for all parties**

- **Demonstrate the economic benefit**

- **Reach out to the right people...clinical expertise and patient perspective essential. Grass roots**

- **Don’t get bogged down in bureaucracy. Break down institutional barriers**
Founding Projects

In addition to developing a standing trials population the RIC will get underway with three founding projects. The founding projects have been selected to;

- showcase of the capacity of the R.I.C to accelerate the development and implementation of technology
- solidify existing relationships with key industry partners, healthcare organizations and patient groups
- Target acceleration at different points in the development, commercialization and implementation pathway.

**Project 1:** Rex Bionics: testing novel technology in clinical practice

**Project 2:** AbleX: implementing novel technology into clinical practice

**Project 3:** NZALS Impact and cost of bringing technology to NZ clients

Where next?

The RIC will continue with a phase of consultation, including two further concept launch events in Auckland and Christchurch planned for early 2016. By March 2016 we will have developed a vision, mission statement and objectives for the first two years including a business plan. An important part of our early work will focus in developing effective working processes to enable the successful implementation of the RIC. Development of the standing trials population is currently underway, as is scoping of the three founding projects.

The R.I.C will publish quarterly newsletters and develop communication and social media strategies. Please forward this newsletter to colleagues who may be interested. Please contact us to offer input or express an interest in collaboration.

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