

## MEDIA RELEASE

24 May 2017

### Advanced medical bionics by Australia-Ireland researchers on show

[Australia's Ambassador to Ireland, Mr Richard Andrews](#), will host a showcase of Australian-Irish research in Dublin this week, highlighting the next generation of bionic devices.

[ARC Centre of Excellence for Electromaterials Science \(ACES\) Director Professor Gordon Wallace](#) said advances in science and technology are improving existing bionic devices, and opening up new opportunities.

“Over the past two decades researchers around the world have built an impressive inventory of biomaterials, electromaterials and advanced fabrication tools that would have [the father of bionics, Luigi Galvani](#), dancing in the street,” Prof Wallace said.

“These discoveries mean researchers can think beyond conventional bionics,” he said.

Bionic devices as we know them, already change lives. Think of the child who, thanks to the cochlear implant, hears his mother's voice for the first time, and the implications this has for human connection, language and lifelong learning. This device, and others, is underpinned by amazing science, technologies and the brainpower of highly interdisciplinary research teams.

What could the next generation of bionic devices possibly look like?

New bionic devices, already in train through the global ACES network, will be highlighted from **4pm-6pm, Thursday 25 May (GMT) at the Australian Embassy, Dublin.**

Professor Wallace and long term collaborators from the INSIGHT Centre for Data Analytics will present their work investigating bionic implants that:

- improve current devices like the cochlear implant
- provide electrical simulation to address chronic diseases
- are temporary, and can be used to enhance regenerative processes
- enhance the efficiency and effectiveness of cell therapies, such as the use of stem cells for [cartilage regeneration](#) or [islet cell transplantation to treat type one diabetes](#)
- transfer muscle impulses to wearable devices, like a prosthetic hand.

“Rapidly converging technologies mean that these opportunities are right in front of us, presenting the ability to enhance medical treatments for patients, as well as [new commercial opportunities for industry](#),” Prof Wallace said.

The SFI Funded INSIGHT Centre for Data Analytics is one of Europe's largest data analytics organisations that works on processing and using information to enable better decision making for individuals, society and industry. CEO, Oliver Daniels will be presenting at the showcase along with Professor Robert Forster, director of the National Centre for Sensor Research, Dublin City University.

Visit the ACES [website](#) for more information on their work and collaborations.

**Media opportunity:**

Please contact ACES Communication and Media Officer Natalie Foxon on 02 4221 3239 or [nfoxon@uow.edu.au](mailto:nfoxon@uow.edu.au) to arrange an interview with Professor Wallace (Ireland time, GMT1).