

# Profile: Dónal Leech

## Current Positions:

Dean of Graduate Studies

Personal Professor, School of Biological and Chemical Sciences

Director, Biomolecular Electronics Research Laboratory

Editor-in-Chief, [Bioelectrochemistry](#)

## Biographical Sketch

- NIHED (now DCU): B.Sc. in Analytical Science, 1988
- Dublin City University: Ph.D (M.R. Smyth and J.G Vos with visit to J. Wang in NMSU, now at Univ. of San Diego), 1991
- University of Hawaii: Post-doctoral researcher (G.A. Rechnitz), 1991
- Université de Montréal: Assistant Professor, 1993
- University of Galway: Lecturer/Senior Lecturer/Professor, 1997-present
- Ecole Normale Supérieure, Paris: Visiting Academic (C. Amatore), 2003
- University of New South Wales, Sydney, Australia: Senior Visitor (J.J. Gooding), 2009
- Canterbury University, Christchurch, NZ: RSC JWT Jones Visiting Fellow (A. Downard), 2009
- Curtin University, Perth, Australia: Visiting Professor (D. Arrigan), 2020
- University of Galway: Dean, College of Science, 2014-2018
- University of Galway: Dean of Graduate Studies, 2020-

## Research Interests

The **Biomolecular Electronics Research Laboratory**, Director Prof. Dónal Leech, was established in Galway in 1997.

Research in the laboratory focuses on preparation and characterisation of electron-transfer catalysts and modified electrode surfaces directed to eventual application as biomolecular electrochemical devices (sensors and fuel cell electrodes).

This research is undertaken by a group consisting of post-doctoral, doctoral, masters and undergraduate researchers working with collaborating partners within University of Galway, nationally and internationally (see joint publications for details).

We have a particular interest in electron transfer reactions at the solid/liquid interface and in harnessing biomolecular electron transfer events. The research programme is aimed at developing eventual applications in bioelectrochemical diagnostics and sensors, biomolecular interaction platforms, biofuel cell prototypes, bio- and electrochemical bleaching methodologies, and trace metal monitoring systems in ocean environments. We have in addition a research effort that seeks to underpin these areas of application, focused on synthesis and characterisation of electrode modifiers, separations science and surface analytical techniques, and electrochemical and biochemical methods.

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## Statement: Dónal Leech

I put myself forward for the position of Chair-Elect 2025-2026 of ISE Division 2 to contribute, after over 30 years of research and leadership in Bioelectrochemistry, to the continued success of our topic within the ISE. Sparking the interest of existing and emerging researchers in this exciting and inter-disciplinary area is key to generate knowledge on the mechanisms and consequences of bioelectrochemical reactions and interactions. This will lead to societal benefits such as new instruments and methods, new diagnostics and therapies and new and cleaner industrial products and processes.

If elected I intend to focus on connecting with the members, existing and new, of the Division. The primary focus will be on using the ISE and Bioelectrochemistry network to encourage attendance at ISE-sponsored conferences, and membership of the ISE and Division 2. The conferences remain the best forum for local and international networking, developing collaborations, celebrating successes and for discussing the most exciting research, preferably published in the ISE journal *Electrochimica Acta*.

Division 2 will lead and collaborate on symposia at each ISE annual meeting and will support a Topical Meeting in 2026 or shortly thereafter, following on from participation in the 36<sup>th</sup> Topical Meeting in Croatia and the 40<sup>th</sup> Topical Meeting in Changchun in 2025.

I will champion support by Division 2 of new and emerging researchers: encouraging them to participate in conferences by selecting them as presenters, awarding prizes, and connecting them with each other and the wider community. One initiative to consider, which I introduced at a local early-career ISE workshop in Ireland in 2023, is to include short 'career story' presentations by electrochemists employed beyond academia, in the conferences.

I hope that I have your support to take on this role and if elected to celebrate research successes in Bioelectrochemistry with you.