

## Nano in Medicine & Health

# Technology for Bioelectronic Medicine

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### Abstract

Bioelectronic medicine provides a new means of addressing disease via the electrical stimulation of tissues: Deep brain stimulation, for example, has shown exceptional promise in the treatment of neurological and neuropsychiatric disorders, while stimulation of peripheral nerves is being explored to treat autoimmune disorders. To bring these technologies to patients at scale, however, significant challenges remain to be addressed. Key among these is our ability to establish stable and efficient interfaces between electronics and the human body. I will show examples of how this can be achieved using new electronic materials and devices engineered to communicate with the body and evolve with it.

**Introductory Talk by Dr Samuel Flaherty**

**Investigating the post stroke brain  
using graphene transistor arrays**

Postdoctoral Researcher at NanoNeuro team, Nanomedicine Lab, University of Manchester

Thursday 25 November at 14:00 (UK) / 15:00 (CET)

University of Manchester, Chemistry Building:

Seminar Room G53

VIA ZOOM - <https://icn2.cat/en/outreach/nanoseminars>