

MEDIA RELEASE

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Exploring controlled drug delivery at ACES workshop

Some of Australia's leading researchers in drug delivery systems will come together at the Controlled Drug Delivery Workshop being hosted by the <u>ARC Centre of Excellence for Electromaterials Science</u> (ACES) at the Innovation Campus on Monday 22 October.

Prof Mark J Cook, Neurologist at St Vincent's Hospital in Melbourne will headline the workshop to discuss the revolutionary results of his research into the localised treatment of epilepsy.

Prof Cook has been working on a novel drug delivery system to treat epilepsy where medication is directly administered to the brain. This approach aims to provide the drugs only to the area of the brain at which it is required (i.e. where the seizure is occurring), eliminating the debilitating side effects of the epilepsy drugs, which are typically given orally in large doses.

Prof Mark Cook said he was pleased with the advances his team was making in developing translational research and driving clinical research across disciplines for controlled drug delivery.

"Different methods of brain drug delivery are desperately needed. Drugs are increasingly larger and more complex molecules, and we are often restricted by side effects caused by oral administration," Prof Cook said.

"We have seen recently with a first-in-man drug delivery trial, that there are unexpected benefits of giving drugs directly to the brain, but it has also given us surprising new insights into side effects and their mechanisms that have fundamentally changed our perspectives."

The ACES Controlled Drug Delivery Workshop will also highlight work being conducted by ACES researchers and collaborators on the use of new biomaterials and advanced fabrication techniques to improve the performance of delivery systems, including: capsule structures to deliver anti-cancer drugs into tumours; novel systems that allow controlled drug delivery along suture threads; and the use of 3D printing to generate controlled delivery systems.

ACES Director Prof Gordon Wallace said the workshop was a great opportunity to bring together researchers from a variety of fields to showcase, discuss and network in this ground-breaking area of medicine.

"The potency of drug treatments is inevitably determined by the efficacy of the delivery system. Localised, targeted delivery means the drug has the best chance of doing its job, and minimises issues associated with toxicity," Prof Wallace said.

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"Our researchers are making significant advances in the development and implementation of advanced fabrication approaches for controlled drug delivery that can have real impact in the lives of millions of people who require drugs to treat significant medical conditions."

The Controlled Drug Delivery Workshop will be held on Monday 22 October in the AIIM Building at the Innovation Campus, starting at 9.30am.

The full program for the event is attached.

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Media opportunity

Prof Gordon Wallace and Prof Mark Cook are available for interviews on the morning of Monday 22 October. Please contact Lauren Hood on 4221 5306 to arrange an interview.

The ARC Centre of Excellence for Electromaterials Science (ACES)

Based at the University of Wollongong's Innovation Campus, ACES is a multidisciplinary research group with a focus on developing functional devices for applications including batteries, solar cells and systems that interact with living tissue.

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