

Research aims to improve battery-life for smartphones



Dr Da-Wei Wang's work on prolonging battery life has won him a Research Excellence Award from The University of Queensland (UQ).

20 September 2012

A Queensland researcher, who is developing high-energy batteries that can keep smartphones charged longer, has won a Research Excellence Award from The University of Queensland (UQ).

Dr Da-Wei Wang of UQ's ARC Centre of Excellence for Functional Nanomaterials [Australian Institute for Bioengineering & Nanotechnology \(AIBN\)](#) is investigating techniques in developing safe high-energy rechargeable lithium batteries.

The research aims to design batteries that can recharge electronic devices and electrical vehicles safely and efficiently.

Dr Wang has received \$78,000 from The UQ Foundation Research Excellence Awards, which are designed to nurture early career researchers.

He will be researching how to create nanocomposite membranes made up of functionalised nanocarbons and polymers, and will also study the ionic conductivity and mechanical strength of the new solid electrolytes.

" Through the design of polymer nanocomposite solid electrolytes, I plan to develop highly reliable, high-energy lithium batteries that can be used to power electric or hybrid vehicles," Dr

Da-Wei Wang said.

" This UQ award means much to me.

" Not only does it highly acknowledge my achievements during the past years, but generously offers a prestigious opportunity to expand my research scope."

Dr Wang will collaborate with Professor Ian Gentle from SCMB, Professor Lianzhou Wang from Chemical Engineering and Dr Denisa Jurcakova from AIBN.

" We wish to attract industry partners into this area soon," Dr Wang said.

In its 14th year, the [UQ Foundation Research Excellence Awards](#) has bestowed \$703,000 on nine researchers from a range of faculties, centres, schools and institutes across the University.

Media: Communications officer Belinda Berry, +61 7 3365 3439 or b.berry2@uq.edu.au

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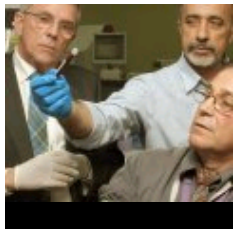


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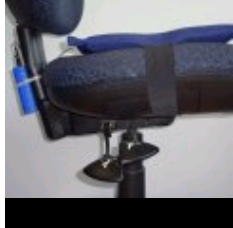
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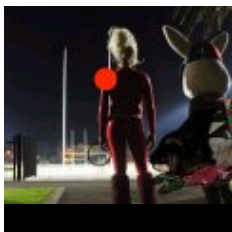
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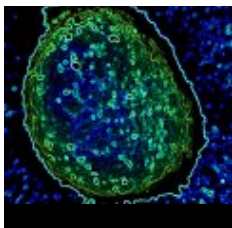


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