

MEDIA RELEASE

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CNBP technology targets chronic pain

A consortium led by Macquarie University, utilising technology established by the ARC Centre of Excellence for BioPhotonics (CNBP), has been awarded a \$340,000 Linkage Grant by the Australian Research Council, to target the debilitating effects of chronic pain.

The grant, bringing together researchers from Macquarie University, the University of Adelaide and the regenerative medicine company Regeneus, will support work that aims to relieve chronic pain in animals and will lay the foundations for future human therapies, using molecular tests, cell technologies and immune/hormonal pain generators.

According to Mark Hutchinson, Professor at the University of Adelaide and CNBP Director, the consortium's activity will not only seek to target the incapacitating effects of chronic pain but will also aid understanding of how men and women feel pain differently.

"Chronic pain is a great research challenge and we now know that it affects females more than males. Building on our ability to sense what is happening in the body at the cellular and molecular level, this project aims to develop a new understanding of pain as well as its differences related to gender," explained Hutchinson.

"Establishing the fundamental mechanism in pain, the role of immune signalling and molecular mediators, we will enable true pain-modifying treatments which address pivotal trigger points in both females and males. This work will highlight the importance of examining both sexes at a basic research level."

Ewa Goldys, Professor at Macquarie University and CNBP Deputy Director added, "The grant will also help us to develop a unique approach – to use specially selected stem cells to separately target arthritic male and female pain, and to demonstrate novel veterinary chronic pain treatments."

Said Goldys, "Our efforts will be largely based on utilising CNBP technology, incorporating innovative cell detection, molecular sensing and labelling know-how, operating at the nanoscale level."

"From this, we're hoping to see impressive translational outcomes across the life and medical sciences field."

The Linkage Grant to be administered by Macquarie University features Professor Mark Hutchinson (CNBP Director at the University of Adelaide), Professor Ewa Goldys (CNBP Deputy Director at Macquarie University), Dr Guozhen Liu (CNBP Research Fellow at Macquarie University), and Dr Graham Vesey (Co-founder and Chief Scientific Officer at Regeneus Ltd) all listed as named Investigators. The project will commence in July 2016.

<ENDS>

IMAGES:

Immune cell responses within the central nervous system in response to chronic pain. <https://flic.kr/p/Gh8daW> and <https://flic.kr/p/GMoXWf> and <https://flic.kr/p/GMoYcf>

CNBP Director Prof Mark Hutchinson. <https://flic.kr/p/xG76GA>

CNBP Deputy Director Prof Ewa Goldys and CNBP Research Fellow Dr Guozhen Liu. <https://flic.kr/p/HcjaBk>

ABOUT:

The Centre for Nanoscale BioPhotonics (CNBP) is an Australian Research Council Centre of Excellence, with research focussed nodes at the University of Adelaide, Macquarie University and RMIT University. A \$40m initiative, the CNBP is focused on developing new light-based imaging and sensing tools, that can measure the inner workings of cells, in the living body. <http://cnbp.org.au/>

MEDIA CONTACTS:

Professor Mark Hutchinson
Director, Centre for Nanoscale BioPhotonics
The University of Adelaide
Phone: + 61 (08) 8313 0322
Mobile: +61 (0) 466 304 980
Mark.hutchinson@adelaide.edu.au

Professor Ewa Goldys
Deputy Director, Centre for Nanoscale BioPhotonics
Macquarie University, Sydney
Phone: + 61 (02) 9850 8902
Mobile: +61 (0) 421 318 145
ewa.goldys@mq.edu.au

Tony Crawshaw
Communications
Centre for Nanoscale BioPhotonics (CNBP)
Macquarie University, Sydney
0402770403
tony.crawshaw@mq.edu.au