Illawarra researchers to tackle Motor Neurone Disease with cancer expertise

The worldwide quest to develop an effective treatment for Motor Neurone Disease (MND) will be pursued by Illawarra Health and Medical Research Institute (IHMRI) researchers after they won a substantial grant from the MND Research Institute of Australia (MNDRIA) today.

Dr Justin Yerbury and Dr Kara Perrow attracted the $100,000 MNDRIA grant to develop a novel approach to tackling the devastating disease which affects the nerve cells controlling the muscles that enable people to move, speak, breath and swallow. MND kills more than 800 Australians each year and there are currently no effective treatments.

“One of the main hurdles to the development of new drugs is achieving an efficient delivery of the medication to the location in the brain and spinal cord where it is required,” said Dr Yerbury.

“This is highlighted by the fact that one of the most effective gene therapies trialled in MND mice only reaches eight per cent of motor neurons in these mice. Our objective is to develop a therapeutic delivery system that will increase this success rate,” said Dr Yerbury.

The delivery system will be developed in IHMRI’s research laboratories on the University of Wollongong campus and will capitalise on Dr Perrow’s experience developing new generation cancer drugs and delivery methods that target cancer cells via the use of nanoparticles and drug-loaded fibres.

“The cancer field is decades ahead of neurodegeneration in terms of drug delivery,” said Dr Perrow.

“Using the knowledge accumulated in the field of cancer drug delivery will help us make significant advances in MND research.”

IHMRI Executive Director, Professor Alan Pettigrew, said that the project is a great demonstration of the Institute’s commitment to bringing researchers from different disciplines together to solve major health issues.

“Motor Neurone Disease is a horrific illness. The coming together of cancer biologists and neuroscientists in IHMRI is a perfect example of how collaboration between scientists from different research fields can advance our knowledge and achieve better outcomes for patients.”

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