MEDIA RELEASE

Embargoed: 8.00pm Thursday 1st September 2016

Centenary Institute Medical Innovation Awards
"Neil Lawrence Prize" has been awarded to
Dr Anne Rios for ground-breaking research in to breast cancer

The Hon. Pru Goward MP, Minister for Medical Research, tonight announced Dr Anne Rios from the Walter and Eliza Hall Institute (Melbourne) as the winner of the "Neil Lawrence Prize" at a ceremony in Sydney.

Dr Rios has been awarded the $25,000 prize for her research titled 'A journey into the unexpected: a 3D view of Breast Cancer'. Dr Rios has devised a new method for seeing breast tissue in 3D and tracing by an introduced colour individual cells. Armed with these techniques she has understood not only the cellular basis of lactation but also the origins of cancer.

Dr Paul Mason from the Woolcock Institute was recognised by the voting public as the winner of this year's People's Choice Award for his project an 'Educational children's book about Tuberculosis'.

In 2011, the Centenary Institute of Cancer Medicine and Cell Biology established the Centenary Institute Medical Innovation Awards (CIMIA) in honour of Neil Lawrence in 2011. Following the passing of Neil in 2015 1st prize has been named in his honour. In its sixth year, the Awards are acknowledged as one of the most prestigious prizes for early career researchers as it recognises and rewards Australia's most creative and innovative young scientists.

Major discoveries are most often made by scientists early in their career, as they acquire their research independence and have the freedom, imagination and energy to produce new ideas and undertake the original experiments that flow from them. Recognising and fanning these sparks early on is critical.

The Centenary Institute Medical Innovation Awards promote medical research in Australia and are being heralded as the Archibald Prize for Australia's young scientists helping further their careers and continuing to build a domestic culture of biomedical research excellence.

The Centenary Institute recognises the invaluable contribution of the Val Morgan Cinema Network, Commonwealth Bank and Thinkable.org to the future of medical research in Australia through their commitment to the Awards.

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About the Centenary Institute Medical Innovation Awards
80% of the biggest scientific discoveries for humanity (Nobel laureates) have come from researchers younger than 45 years of age. Nobel Prize-winning immunologist, Professor Rolf Zinkernagel enthusiastically endorses the prize: "Typically it is early in their careers that scientists are at their most creative. It's as PhD students and post-doctoral fellows that they generate the ideas that set the pattern of their studies to come. I should know. My collaboration with Peter Doherty that led to our joint Nobel Prize began as a post-doctoral fellow in Canberra".

There are 20,000 early to mid career researchers in Australia. With Australia's young researchers facing the increasing challenge of securing funding from government, as success is often based track record and the number of one's publication, we must continue to believe in and get behind medical research if we are to maintain a competitive advantage globally and support the advancement some of Australia's most promising scientists to build a culture of excellence and ensure the nation's prosperity.

The Centenary Institute Medical Innovation Awards recognise and support innovative ideas that are set to not only making a positive impact on communities, but also enhancing the nation's health and prosperity. Each year, the Prize awards Australia's best and most innovative young scientists who are applying their creative ideas to tackling some of the most chronic diseases in order to save thousands of lives, in Australia and globally, and protect future generations.

Centenary Institute Medical Innovation Awards - People's Choice Award Winner

Dr Paul Mason - Dr Mason is a medical anthropologist with undergraduate training in biomedical science at the University of Melbourne and postgraduate training in cultural anthropology at Macquarie University. He has conducted laboratory research in Australia and France (2000-2006), archival research in Holland (2009), and ethnographic fieldwork in Brazil (2009), India (2012), Indonesia (2007-2008), and Vietnam (2014-2015). In 2011, his PhD research was interrupted for six months when he moved to Melbourne to look after his mother who was in the early stages of early-onset dementia. While dementia is still sadly an incurable disease, his experiences looking after his mother led him to orient his research career towards conditions where treatments are available but are not reaching the patients.

Recognising cultural experience as a central force shaping human interactions, Dr Mason uses qualitative research methods from anthropology to study the context of human behaviour. Interventions, such as the medical diagnosis and treatment of tuberculosis, will ultimately only prove successful if the cultural context is supportive of clinical and biomedical practices. In low- and middle-income countries where tuberculosis is prevalent, medical interventions can interact multifariously with stigma, gender and the illness experience. Dr Mason's research is aimed at addressing these cultural barriers to diagnostic delay and treatment noncompliance. His educational book about tuberculosis is aimed at destigmatising this disease by teaching children and their families about the symptoms, diagnosis, and treatment of this curable disease.

Centenary Institute Medical Innovation Awards – 2016 Finalists (alphabetical by surname)

DR MICHAEL BOWEN – UNIVERSITY OF SYDNEY
Project title – Discovering treatments for forgotten disorders

The social determinants of health are a major topic in epidemiological and health prevention circles. However, the remedies are basically social engineering, political influence, prevention. We have come to recognise that social behaviour is driven by cellular signals and hormones. The most potent of these is oxytocin (a small protein or peptide, best known for its function in parturition).

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Dr Bowen has discovered it also potently alters behaviour, especially addictive behavior and has utility in a range of human disease (many of them have an 'addiction' at their base). He has gone on to synthesize new compounds, easier to use than oxytocin. This approach has the potential to revolutionise sociological research.

DR ELIZABETH NEW – UNIVERSITY OF SYDNEY
Project title – The illuminating journey to understanding human health and disease.

The way we work is by having atoms or molecules hop from one site to another and build up a set of signals that we detect.

Working at the level of very small molecules or atoms is challenging as they are not possible to see. To overcome this fluorescent probes have been devised that allow following the fate of individual atoms/molecules by the light they emit.

New has devised these tags that can follow the relevant molecules and elucidate their function. This has application in cancer for example, where only a fraction of the anti-cancer drug has the desired function, but all of the drug has a toxicity.

Thus by understanding where the active form of the drug (cis-platin, in this case) is and what it does opens the way for less toxic cancer treatments.

DR JACLYN PEARSON – THE PETER DOHERTY INSTITUTE
Project title – Using 'clever' bacteria to understand immune diseases of the gut

Bugs have been the major pathogens for humans, but also as commensals have regulated almost every aspect of function of our bodies.

The degree to which bugs (i.e. bacteria) use evolution to devise ways to 'have their way' and infect the body has fascinated scientists for centuries.

Dr Pearson is investigating how a new set of 'hooks' (or proteins that bind to the host and thereby allow infection) works.

The work uses very modern tools (the chemistry is a bit like LEGO...one can assemble molecules in any order) to make these discoveries.

DR ANNE RIOS – THE WALTER AND ELIZA HALL INSTITUTE
Project title – A journey into the unexpected: a 3D view of Breast Cancer

A background in stem cell research originally in muscle (in France), but then moved to understanding breast development and breast cancer.

One problem with breast development is that it is a three dimensional tissue and to understand it one has to visualise the arborisation of the breast gland.

The second problem is to follow the individual fate of cells as they develop whether to produce mile and feed an infant or to become cancer and kill the host.

She solved these problems by devising a new method for seeing breast tissue in 3D and tracing by an introduced colour individual cells. Armed with these techniques she has understood not only the cellular basis of lactation but also the origins of cancer.