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Centenary researchers receive \$2.25 million boost to tackle cardiovascular disease

Three Centenary Institute researchers based in Sydney have been awarded grants that will help support the diagnosis, treatment and prevention of cardiovascular disease.

The highly competitive grants, from the first round of the NSW Cardiovascular Disease Research Capacity Building Program, were awarded to Centenary Institute's Professor

Christopher Semsarian (left), Professor Jennifer Gamble and Dr Richard Bagnall (right).



Professor Christopher Semsarian, awarded a 'Cardiovascular Disease Clinician Scientist Grant' was happy to receive the funding, noting that the grant would support his research into identifying new genetic causes of inherited heart diseases, including that of sudden cardiac death (SCD) in the young.

"We want to find the underlying molecular mechanisms responsible for these life-threatening heart diseases, to provide answers to families as to why their child died suddenly and how can we help prevent these inherited heart diseases from claiming other family members as well as individuals from across the wider community," he said.

Professor Jennifer Gamble, who was awarded a 'Cardiovascular Disease Senior Scientist Grant' will use her funding to explore molecular changes in endothelial cells as they undergo cellular ageing.

"Endothelial cells line blood vessels and changes in their function and structure can result in leaky blood vessels and a chronic inflammatory state," said Prof Gamble. "These changes contribute to the initiation and progression of age-associated disease including cardiovascular disease. We need to find out what's happening with these cells at a deeper level as an essential first step to developing potential new therapeutics."

Dr Richard Bagnall who also received a 'Cardiovascular Disease Senior Scientist Grant', will use the funding to support his molecular biology and bioinformatics work into developing improved genetic testing for inherited heart diseases.

"High volumes of DNA sequencing data can now be generated, but it requires sophisticated software and computers to make sense of all that information," said Dr Bagnall. "I'll be undertaking a computational analysis of gene sequencing, followed up by laboratory analysis, so that we can precisely identify specific cardiovascular diseases, aiding future diagnostic and treatment approaches."

All 3 recipients are extremely grateful for this wonderful opportunity provided by the NSW Government. “This funding program will translate to the better care of patients with cardiovascular disease, and promote NSW as a true leader in cardiovascular research globally,” explains Professor Semsarian.

The NSW Cardiovascular Disease Research Capacity Building Program and its grants aim to drive discoveries that allow researchers to find ways to better diagnose, treat and prevent cardiovascular disease, improving the health and wellbeing of people living in NSW. Further information on the recipients and their research is available at www.medicalresearch.nsw.gov.au/research-directory/.

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About the Centenary Institute

The Centenary Institute is a world-leading independent medical research institute, closely affiliated to the University of Sydney and the Royal Prince Alfred Hospital. Our research focuses on three key areas: cancer, inflammation and cardiovascular disease. Our strength lays in uncovering disease mechanisms and applying this knowledge to improve diagnostics and treatments for patients.

For more information about Centenary Institute, visit www.centenary.org.au