

Wednesday, 2 May 2018

University partners in international cancer research collaboration

The University of Tasmania has joined an international research partnership designed to better understand the role of cancer in ecological and evolutionary processes.

The University will collaborate with a group of French research institutions and Deakin University, with the special agreement signed by French President Emmanuel Macron and Australian Prime Minister Malcolm Turnbull at Admiralty House today.

The agreement involves the creation of the International Associated Laboratory (Laboratoire International Associé, LIA) – a 'laboratory without walls', and will be part of a world-leading program established by France's national research institute, the Centre National de la Recherche Scientifique (CNRS).

The LIA will undertake the program, Roles of Cancer in Ecology and Evolution (CANECEV), which will bring together specialists from several disciplines to understand cancer from a holistic view.

University of Tasmania Deputy Vice-Chancellor (Research) Professor Brigid Heywood joined Patrick Nédellec, Director of CNRS's European Research and International Cooperation Department, and Deakin University's Deputy Vice-Chancellor (Research) Professor Peter Hodgson, for the signing ceremony.

"The formalisation of the LIA CANECEV agreement with French and Australian institutions is a unique opportunity to consolidate and expand the national and international research networks of cancer ecology and evolution," Professor Heywood said.

"The University of Tasmania is internationally renowned for its research excellence and pioneering advances which continue to have local and global impact."

The LIA will be led by Professor Frédéric Thomas (France's National Centre for Scientific Research - CNRS), Dr Beata Ujvari (School of Life and Environmental Sciences, Deakin University) and Dr Rodrigo Hamede (School of Natural Sciences, University of Tasmania).

Professor Florence Bernex and Dr Laurent Lecam from France's Montpelier Institute for Cancer Research will also join the team.

Dr Hamede said the transdisciplinary project breaks novel ground, both experimentally and theoretically.

"Cancer is not only a major cause of human death worldwide but also a disease that affects all other multicellular organisms," he said.

"Despite this, oncology and other biological sciences such as ecology and evolution have until very recently developed in relative isolation."

The laboratory will draw on specialists working in mathematics, cell biology, evolutionary biology, and behavioural ecology, using both experimental and natural systems.

"We will use genetically modified Drosophila and zebrafish under controlled laboratory conditions, as well as Tasmanian devil facial tumour disease and disseminated neoplasia in bivalves as model systems in the wild," Dr Hamede said.

Dr Hamede said Tasmania provided a unique study opportunity, where two transmissible cancers (DFTD and DFT2) affecting Tasmanian devils have been rigorously studied since their emergence in 1996 and 2014 respectively.

"We have witnessed how these cancers shape the ecology of devils and how they have been evolving with their hosts in real time," Dr Hamede said.

"The outcomes of our research will transcend Tasmanian devils and are broadly applicable to understand the biology and evolution of other transmissible and nontransmissible tumours in natural populations, as well as improving cancer prevention and treatment."

Two University of Tasmania School of Natural Sciences researchers, ARC Laureate Professor of environmental sustainability Barry Brook and disease ecologist Dr Scott Carver, will also join the LIA in an advisory capacity.

For media: Dr Rodrigo Hamede is available for phone interviews today until 5 pm. Please phone 0428 394 626.

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