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MEDIA RELEASE

Australian scientist in new global genomic search for cancer cures

PERTH: An Australian cancer researcher is at the forefront of a global genomics project aimed at identifying new ways to prevent and treat a range of cancer types. The International Cancer Genome Consortium for Medicine (ICGCMed) will sequence the genes of 200,000 people with cancer and link to clinical trials to accelerate advances in cancer treatments.

The ICGCMed data will make trial recruitment easier and quicker, fuelling faster discoveries.

Within nine years scientists hope to identify risk factors for specific cancers; develop successful cancer prevention strategies; create new tests for earlier, faster diagnosis and better match treatments with cancer types and lifestyle/environmental factors.

Perth based researcher A/Prof Nik Zeps is a member of the Scientific Planning Committee and the Ethics and Governance Committee of the program. He was an investigator on one of the original ICGC projects based in Australia, the Australian Pancreatic Genome Initiative that sequenced 461 Australian men and women with pancreatic cancer – a disease with one of the worst survival rates worldwide. The information gained from that study is already being used to improve treatment for pancreatic cancer. He says:

“Australia has a proud tradition of innovation in pathology and medical research and three Australian projects have already been run locally for ICGC in pancreatic and ovarian cancer and in Melanoma. ICGCMed projects will extend on that work and could improve cancer prevention and treatment for Australians over the next 10 to 20 years.”

The project will record non-genetic patient information including details from the pathology report at diagnosis, response to treatments, survival information and patient demographics as well as lifestyle and environmental factors known to influence cancer risk.

Cross-referencing this information with the genomic data collected will help distinguish gene changes that result in aggressive cancers from those that result in less threatening or benign tumours. This helps doctors and patients make better treatment choices sooner after diagnosis.

70% of medical treatment decisions rely on information from pathology test results. A/Prof Zeps is an Ambassador for Pathology Awareness Australia - a not-for-profit group that explains the role of pathology testing in healthcare. He says pathology is central to medical research discoveries:

“Input from pathology laboratories is vital to the success of the ICGCMed projects. They will provide the biopsy samples that are sequenced, detailed genomic and non-genomic information about the cancers, inform us when relapses occur, and help monitor each individual’s response to new trial treatments.”

The ability to sequence entire genomes at an affordable price has made the large-scale projects such as ICGCMed possible. The Human Genome Project from 1990-2003 was the first time scientists mapped all the genes a human. It took 20 international research institutes and nearly

USD \$3 billion. Now this information can be sequenced within a few days for around USD \$3000 onto a computer chip the size of an adult's hand.

ICGCMed is currently seeking funding from member groups around the world before seeking expressions of interest from medical researchers. The projects will conclude in 2025.

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A/Prof Nik Zeps is available for interview

A/Prof Nik Zeps

A/Prof Zeps is a PhD scientist involved in translational research primarily in breast, colon/bowel and ovarian/cervical cancers. His work has included establishing a research bio-bank, a molecular diagnostic service and the provision of laboratory services for clinical trials. He is the Co-Chair of the Communication Committee of the ICGCMed.

Pathology Awareness Australia Limited

Pathology Awareness Australia which is a not-for-profit company formed to improve understanding and recognition of Australia's world class pathology services. The company represents 95% of the Australian pathology sector with members including the Royal College of Pathologists of Australasia, private pathology groups, public pathology groups, manufacturers and suppliers to industry and professional groups.

Pathology Awareness Australia runs the [Know Pathology Know Healthcare](#) to educate Australians on pathology tests improve personal healthcare.