

Study: Potatoes may aid cancer treatment

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Potatoes are not usually thought of as a super food, but a Massey University researcher has found they may have cancer-fighting properties.

Dr Esther Swee Lan Chong graduated with a PhD at a ceremony at the Regent on Broadway in Palmerston North on Friday.

Her research found that extracts from the purple potato variety Urenika and from ordinary white potatoes suppressed the growth of [breast cancer](#) cells in the lab.

"The extracts contained phytochemicals, which are plant-sourced compounds. Several compounds were found at concentrations that have been reported to exert bioactive effects against cancer," she says.

Dr Chong carried out a series of in-vitro experiments with the extracts and MCF-7 – model [breast cancer cells](#) – and found that the extracts hindered the growth of the [cancer cells](#).

She also carried out experiments using both the extracts and tamoxifen – a standard breast cancer medication.

"This medicine is not perfect, at a certain dose it can stimulate tumour growth," she says. "I was interested to see what would happen if I combined the drug with the potato extract."

Her experiments showed that the stimulatory effect disappeared and a

reduction in cell growth occurred when tamoxifen was combined with the extracts.

"My thesis shows that potato extracts have potential to be used as part of a combined treatment for breast cancer," she says. "The laboratory evidence shows that this combinatory effect is encouraging and it warrants future research."

Dr Chong studied a Bachelor of Food Technology (Honours) at Massey University before working in industry in Singapore for several years. She returned to Massey to study a postgraduate diploma before completing her PhD. Her thesis was supervised by Professor of Postharvest Technology Julian Heyes and Associate Professor of Biochemistry Kathryn Stowell.

Professor Heyes says that, although Dr Chong's research is based purely on laboratory studies, it is a helpful reminder of the multifaceted benefits of including adequate intakes of fruit and vegetables in our diet.

"Understanding how fruit and vegetables benefit our health, and how their 'health value' varies during storage and cooking, is vitally important for New Zealand as a global food supplier of safe, high value products."

Provided by Massey University

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