

Breast cancer 'prevention pill' available in 3 years

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Scientists are developing a once-a-day pill using vitamin E derived from palm oil which they believe could help prevent breast cancer and treat early signs of the disease.

Perth biotechnology company Beta Pharmaceutical and researchers in the US and Hong Kong say their groundbreaking research could offer a simple, non-invasive and inexpensive way to prevent and treat the most common cancer in women, with the first commercial product likely to be available in three years.

The research focuses on "chemoprevention" to reduce the risk of cancer developing using tocotrieneol, a rare form of vitamin E which has been shown in animal and laboratory studies to have an anti-cancer effect without affecting healthy tissue.

Researcher Paul Sylvester, from the University of Louisiana's college of pharmacy, who is in Perth this week, has been studying tocotrieneol for more than a decade but said that until now most of the research had been in cell cultures or

in small animal studies. But now access to big quantities of purified tocotrieneol allowed a big pre-clinical trial in specially bred mice with breast tumours.

"This is very relevant because if the treatment works in these mice with exactly the same type of tumours that women get, then there's very strong evidence that it will work in women," Dr Sylvester said.

"We're working on a novel formulation using nanoparticles to make water-soluble forms of tocotrieneol that could be easily absorbed in an oral form and target a specific organ such as the breast."

"The idea is to have a low-dose form, like a daily supplement, that is a preventive treatment, but if women have developed breast cancer you would use the compound in a high-dose form and perhaps in combination with other known anti-cancer agents."

Dr Sylvester said once the mice study finished in four months, human trials could begin and a commercial preventive product could be available in about three years.

Beta Pharmaceutical is launching a \$5 million public float.