

# Marine organisms could hold the secret to reducing cancer

June 24 2008

---



Research into why a tea derived from an ancient crop from the western Pacific could be responsible for reducing the risk of cancer, is being conducted by Aberdeen experts.

Kava-kava tea, which is drunk as a relaxant in the Pacific island nations, contains elements which are thought to inhibit the formation of certain types of the disease including lung cancer.

University of Aberdeen experts, in collaboration with the University of the South Pacific, and scientists in Luxembourg are applying their knowledge of the tea's components to research into unique marine

species which may have similar cancer treating effects.

Studies are being conducted into Fijian marine organisms such as sponges, seasquirts and soft corals to investigate whether they have the same potential for treating certain types of cancer in the future.

Professor Marcel Jaspars, of the Marine Biodiscovery Centre, College of Physical Sciences, University of Aberdeen, who is leading the research project, will deliver presentations highlighting the research to international audiences of experts at two key French conferences next month.

Professor Jaspars says: "The premise that kava-kava tea could be responsible for reducing incidence of cancer in Pacific island nations was originally published by Dr G G Steiner in 2000. Our research has focussed on the chemistry behind this theory, in order to successfully build a possible mechanism for how this happens.

"Our studies have identified that in cancers such as leukaemia, where the prevention of natural cell death causes the disease, the kava compounds allow the cancer cells to die normally."

Derived from the Kava plant, kava-kava tea is traditionally served as a cold drink.

The sale and import of kava kava in foods in the UK was banned in 2003 after the Commission of Toxicity (COT) took the view that it was linked to liver damage.

Professor Jaspars continues: "We are using our knowledge of kava-kava tea to investigate if other marine organisms such as sponges, corals and seasquirts which are common to the waters of Fiji may contain components with the same effects.

"We are focusing our studies on this location as previous research has shown that the variety of organisms with potent biological activity in Fijian waters is extremely high."

Researchers from the University's School of Natural & Computing Sciences are also looking at the ability of marine organisms to tackle the issue of drug delivery.

Professor Jaspars continues: "Whilst we are making vast strides forward within modern pharmaceuticals, the failure to get drugs delivered to the places where they are required is a significant problem.

"We are currently conducting laboratory testing on a marine sponge called *Reneira sarai*, which has been sourced from the Mediterranean, which may have the potential to deliver drugs and other substances to their sites of application.

"We have now developed the ability to produce the sponge material synthetically. This opens up vast possibilities for its utilisation in the process of the transportation of medicinal drugs."

Source: University of Aberdeen

Citation: Marine organisms could hold the secret to reducing cancer (2008, June 24) retrieved 19 April 2024 from <https://medicalxpress.com/news/2008-06-marine-secret-cancer.html>

This document is subject to copyright. Apart from any fair dealing for the purpose of private study or research, no part may be reproduced without the written permission. The content is provided for information purposes only.