

## Nature did it first - THE SEEDS OF THE BLUSHWOOD TREE

A small regionally based Queensland company EcoBiotics Limited, with the help of QIMR scientists, have discovered a new treatment for cancer from nature.

At the Queensland Institute of Medical Research (QIMR), Professor Peter Parsons said this naturally occurring compound may add a significant new weapon in the fight against cancer.

Called EBC-46, the compound was originally found in the seed of a North Queensland rainforest plant.

EBC-46 has been used to successfully treat cancerous tumours in nearly 200 cats, dogs and horses.

Professor Parsons' laboratory has been an integral part of the EcoBiotics team and has been involved in purifying EBC-46 from the seed. They also tested the efficiency of the compound against different types of tumours to understand how it works.

"We have conducted many experiments to understand the mechanism of this compound," said Professor Parsons.

"The compound is very potent and is applied by direct injection into the tumour. It causes local haemorrhage which appears like a bruise and then after several days or weeks the tumour dies. What is impressive about this treatment is that it does not affect other healthy tissue, only acting on tumour tissue."

"We have discovered that the compound is a very complicated structure and it would be incredibly hard to synthesise. However, the good news is that nature has done the hard work for us and concentrated it in a seed."

"The rainforest plant can be grown in commercial quantities and EcoBiotics has established pilot plantations in a number of locations in Queensland. Because the compound is so active, only a small

area of plantation is required for large scale supply of the active ingredient."

Further limited veterinary trials are underway with the aim of registering the drug as a veterinary pharmaceutical in Australia.

Human trials are expected to start within the coming 12 months on solid tumours such as skin cancers, and head and neck cancers. If this goes well, there is potential for treating internal tumours where injection can be guided through imaging processes.

The treatment is being developed by an Australian owned company called QBiotics, a subsidiary of EcoBiotics.

Oscar the beagle was one of the lucky ones to participate in the animal trial. The cancerous tumour on his nose was treated with a single injection of EBC-46. The results speak for themselves with no sign of the tumour six weeks after treatment.

### About QIMR

QIMR is one of Australia's largest and most successful medical research institutes. Our researchers are investigating the genetic and environmental causes of more than 40 diseases as well as developing new diagnostics, better treatments and prevention strategies. The Institute's diverse research program extends from tropical diseases to cancers to Indigenous health, mental health, obesity, HIV and asthma.

More information about QIMR can be found at [www.qimr.edu.au](http://www.qimr.edu.au)

