



Media release

From the Minister for Environment and Climate Change and
Minister for Innovation

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NEW ERA FOR BIODISCOVERY IN VICTORIA

A new Brumby Government policy will make it easier for scientists to collect limited material from Victoria's native plants and animals to create new medicines.

Environment and Climate Change and Innovation Minister Gavin Jennings today launched *Biodiscovery in Victoria – a framework for managing access to and use of our native biological resources* at Ausbiotech 2008 in Melbourne.

"The Brumby Government is taking action to encourage scientific research into the medicinal potential of plants and animals while ensuring our native species are protected from exploitation," Mr Jennings said.

"Victoria has a biologically rich environment with at least 3140 native species of vascular plants, 900 lichens, 750 mosses and liverworts, 111 mammals, 447 birds, 46 freshwater and 600 marine fish, 133 reptiles, 33 amphibians and an untold number of invertebrates, fungi and algae.

"These species may contain unique compounds that have the potential to aid human health or contribute to conservation of the environment.

"This new framework aims to prevent over-harvesting and exploitation while allowing scientists limited access to Victoria's natural resources to create new drugs, jobs and export income.

"Many modern drugs originally came from a molecule discovered in nature: Aspirin came from the bark of willow trees while breast cancer drug Taxol came from the North American yew tree."

Professor Bill Charman, Director of the Monash Institute of Pharmaceutical Sciences, Monash University said: "This new policy places scientists in a much stronger position because it gives assurance that our biodiscovery source material ownership and associated intellectual property is well-defined and not open to question later."

Dr Charman and a research team from the USA, Switzerland and the UK have been working for the past four years on a biodiscovery project aimed at finding a cheap and easily produced drug to fight malaria, a disease which kills about 1.3 million people a year and infects many more.

Their attention has focused on the plant sweet wormwood (*Artemesia annua*), which has been used for centuries by the Chinese as a remedy against malaria.

Knowing that artemisinin, extracted from the wormwood plant was an effective anti-malaria remedy, the scientists went on to use this knowledge to design two synthetic anti-malarial drugs, OZ277 and OZ439 that can trace their therapeutic history back to the natural product.

OZ277 is currently progressing through clinical trials in India while OZ439 is still in early stages.

Prof Charman said: "If a chemical with potential medicinal properties is isolated from a plant or animal, ideally it should be capable of synthetic manufacture in the laboratory and optimisation of its therapeutic and pharmaceutical properties.

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“That is the beauty of biodiscovery. It allows scientists to source new and useful bioactive chemical compounds which can then be fine-tuned in a laboratory to make them more effective.”

The policy includes benefit-sharing agreements, a compliance code and rigorous application assessment system.

The policy meets internationally agreed requirements under the Convention on Biological Diversity and is consistent with the Victorian Biodiversity Strategy.