

# No spikes attached to test tube velvet

by Noreen Hegarty

A LITTLE over a year ago TDF ran a tongue-in-cheek 'special report' about in-vitro velvet — the scientific breakthrough by Wairarapa farmer Mark Hemi.

TDF is known for being on the ball, but in this case was well ahead of its time.

Dr Mehri Sadighi, a post-doctoral research fellow at Invermay Agricultural Centre, along with Invermay's Dr James Suttie, have successfully cloned antler cells after growing them in culture.

They have taken velvet from stags of all ages (mainly mature), separated the cells in the growing tip, then proceeded to grow the cells in a culture of fetal calf serum.

Further to that, they've cloned the cells for more research.

"We started growing antler cells in culture about 10 months ago," Suttie says.

"We were interested in the bio-activity of the antler but didn't want to set up live animal testing. A test tube was more appropriate."

According to Suttie, cloning produces lines of bone cells (osteoblasts), and lines of initial cells (fibroblasts) that are divided at the tip of the antler. Sadighi and Suttie have cloned both 'blasts'.

The aim now is to look at which growth enhancers actually induce or increase velvet growth.

"We will also look at extracts from the velvet antler to study the po-

tency of different parts of it in relation to increasing growth," Suttie says.

The relevance of such work, Suttie says, is twofold.

- By understanding how the antler grows and what parts of it are biologically active, they may be able to increase the application of them medically, and increase the value of the product to the farmer.

- The antler has been likened to a tumor, so the Invermay scientists want to look at what growth factors antlers respond to to stop growth.

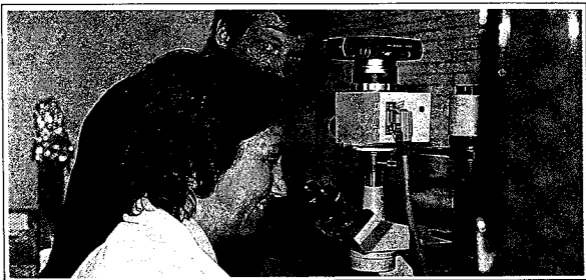
"If we discover the antler produces a substance to stop its own growth, it may be possible for MAF to produce a substance which would be an anti-tumor agent," Suttie says.

The Deer Physiology Group at Invermay is pursuing bio-medical funding to enable it to continue the research, and the Game Industry Board is presently funding part of the research — that part dealing with the bio-active parts of the antler.

Suttie says it takes three weeks to clone the antler cells and once that is done, the experiment can be turned around in a week.

When asked whether MAF had any plans to get into mass production of in-vitro velvet and swamp an already shaky velvet industry, the answer was a definitive 'No'.

"There is no danger of synthetic velvet production as a result of our research," Suttie assured TDF. □



Dr James Suttie and Dr Mehri Sadighi of Invermay

*Taking a close look at the finer points of synthetic velvet.*