Skin cancer tumours busted with red dye 'tattoo' trial

SAVED BY SCIENCE: Boer goat farmer David Deakin successfully underwent an experimental treatment for cancer.

Melanoma breakthrough
The Rose Bengal story

The dye is believed to have been named after the red dot worn by women from the Bengali region of India as a symbol of marriage.

In 1919, Rose Bengal was found to be an effective stain for visualising corneal ulcers. It is still used as a biological staining agent of the eye.

In the late 1990s, researchers stumbled across a three-line sentence in a Japanese study indicating tumour-prone mice fed Rose Bengal had a survival advantage.

30 per cent, the tumours shrunk.

“What has been found is that this drug specifically targets cancer cells and destroys them, and also sets up an immune response,” Dr Agarwala said.

He said the treatment had been designed for melanoma patients with secondary cancers on or underneath the skin.

“However, if the patient also has a tumour elsewhere, for example in the lungs, we have sometimes seen that not only the tumour we inject shrinks, but the tumour in the lung can shrink as well,” Dr Agarwala said.

Queensland Melanoma Project head Mark Smithers stressed rose bengal was not a cure and it was too soon to say whether it improved survival.

“I wouldn’t for one second try to say we have the answer to melanoma, because we don’t,” Associate Professor Smithers said. “But we’ve got a treatment for a very difficult problem.”

He said side effects were milder than chemotherapy.

“People are hypersensitive to the sun for the first week and have to be careful,” he said.

Doctors are planning a larger trial that they hope will lead to medical regulators approving the drug for use in advanced melanoma patients.

Brisbane-based cancer specialist Paul Mainwaring, who was not involved in the trial, said some melanoma patients undoubtedly responded to treatments such as rose bengal.

“Many chemotherapy and immunotherapy agents have been tried, all reporting isolated responses,” he said. “The question that is raised is why some patients’ immune systems respond and why some don’t.”