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Light-bulb moment

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New find in cancer therapy

BRIGID O'CONNELL

A LIGHT therapy used to treat skin cancer and sun spots is emerging as a promising treatment for reaching cancer cells deep in the body, with Australian researchers now finding the first evidence of its ability to kill ovarian tumours.

Ovarian cancer is notoriously deadly given its vague symptoms which mean it is typically diagnosed in the more advanced stages.

Less than half of those diagnosed will live more than five years after diagnosis, as most patients ultimately become resistant to standard chemotherapies.

But new research from the Hudson Institute of Medical Research in Melbourne has found that a new type of treatment, called photodynamic light therapy, is able to dramatically shrink ovarian cancers in mice, while sparing the surrounding healthy tissue.

The treatment works by giving the patient a drug containing a light-sensitive compound — which is administered intravenously for solid tumours, and as a skin cream

for treating melanoma. These compounds sit inert in the cancer cells until a specific wavelength of light is shined on them, causing a reaction in the tumour.

The proof of concept work in mice saw it halve the size of ovarian tumours by three weeks.

Lead researcher Dr Andrew Stephens said it was believed the treatment worked in two ways — first by triggering instant cell death and secondly by rallying the immune system to continue attacking the cancer. “It’s like a little explosion in the cell that damages the cancer cell and it dies immediately,” Dr Stephens said.

“Over the next few weeks we believe it starts to recognise the tumour as bad and continues to attack it and remove it.

“That’s something we’ll be looking at over the next few months.”

Dr Stephens said given ovarian cancer was resistant to traditional and some new types of treatment this appeared to be a new and promising way of evoking the immune system to provide a more sustained attack against the cancer.