

New direction for prostate cancer research a world first

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Researchers at the University of Adelaide are spearheading a new direction in prostate cancer research, with the potential for new treatments of the disease.

The researchers have just begun new studies that they hope will overcome a major problem that limits current treatments for metastatic prostate cancer, and improve men's chances of surviving.

Prostate cancer is the most common cancer diagnosed in Australian men and the second most common cause of cancer-related death in men.

Until now, researchers around the world have focused their efforts on developing <u>new drugs</u> that block the actions of <u>male hormones</u>, called androgens, in prostate <u>cancer cells</u>, but most patients become resistant to these treatments. Research at the University of Adelaide is part of a worldwide effort to find a new way of destroying the <u>resistant cancer cells</u>.

"This global project is a completely new direction for prostate cancer research, and we are very excited to be a major part of it," say Professor Wayne Tilley, Head of the University of Adelaide's Dame Roma Mitchell Cancer Research Laboratories.

Speaking in the lead up to Men's Health Week (June 10-16), Professor Tilley says that once metastatic prostate cancer has become resistant to standard drugs, it is very difficult to treat.



"Until now the focus has been on finding drugs that will block the action of androgen in <u>prostate cancer cells</u>. However, that simply isn't working – the cancer cells adapt and start to produce super-active 'sensors' of androgen action (super-active <u>androgen receptors</u>) that are not inhibited by the current drugs.

"As a result, for many men with resistant disease, current treatments only extend their lives by a short period of time. We haven't made the major breakthrough that many researchers had been hoping for," Professor Tilley says.

The team at the Adelaide Prostate Cancer Research Centre, in the University's Dame Roma Mitchell Cancer Research Laboratories, is the Australian arm of a major international collaboration spanning the US, UK, Belgium, Singapore and Australia which has collectively decided to take a new approach to prostate cancer treatment.

"We're looking at two main types of potential therapies that will be effective at destroying these super-active androgen receptors, to see if they improve the outcomes for men with prostate cancer," says Associate Professor Lisa Butler. "These treatments look very promising in our laboratory studies, but we now have a lot of work ahead to see if these solutions are viable in the clinic."

Provided by University of Adelaide

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