

Media Release

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New hope for bladder cancer patients

A discovery by Melbourne scientists could lead to a treatment to stop the spread of invasive bladder cancer – the fourth-most common cancer in Australian men.

In the December edition of *Cancer Research*, Dr Elizabeth Williams, from the Monash Institute of Medical Research, explains how she led a collaborative team which has discovered specific molecules in the bladder that drive the spread of cancer outside the bladder into a number of organs, including the lymph nodes, bone, lungs and liver.

Only 50% of invasive bladder cancer patients survive more than five years.

“The spread of cancer, or metastasis, is responsible for 90% of all cancer deaths,” said Dr Williams. “Currently cancer drugs target the primary, or main, tumor. Once secondary tumors have spread outside organs such as the bladder, they are frequently unresponsive to treatments and cure is unlikely.”

“As bladder cancer metastasises similarly to cancers of the breast, prostate and lung, our research has the potential to uncover treatments to stop the spread of these diseases as well,” Dr Williams said.

The molecules discovered also may play a role in diseases such as diabetes and liver disease, as well as wound healing.

Next, Dr Williams and her team will determine whether the molecules are present in human invasive bladder tissue samples, as well as understanding their biology in animal models of bladder cancer. Studies are also underway to investigate other cancers in which the molecules may play a role.

“This stage of our research will then lead to us working with a pharmaceutical company to develop the right drugs to target these molecules.”

“More than 100 invasive bladder cancer patients have donated bladder tissue for us to use in this project, which will make this the second-biggest invasive bladder cancer research project in the world,” said Dr Williams.

Bladder cancer affects more men than women. The disease is associated with smoking and exposure to a number of industrial chemicals. In 2001, 977 Victorians were diagnosed with bladder cancer, 76% of whom were men. Two hundred and thirty-seven Victorians died of the disease.

Research partners were the Bernard O'Brien Institute of Microsurgery, University of Melbourne Department of Surgery, St Vincent's Institute and the Urology Department, St Vincent's Hospital.

A copy of the abstract is available at: <http://cancerres.aacrjournals.org/cgi/content/abstract/66/23/11271?ck=nck>

Vision opportunities

Dr Williams in the lab, working with bladder cancer cells under the microscope.

More information / interview & vision opportunities

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