



## Media release

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### Can the right kinds of food prevent bowel cancer?

The key to preventing the second most deadly cancer in the world could lie with a better understanding of the molecular structure of starch and how it is digested in the human body.

It is this process that may be the key to a better understanding of reducing the incidence of diet-related disease such as colo-rectal cancer and Type 2 Diabetes.

That's just one of the topics of discussion at the Neutron and Food Workshop, organised by the Australian Nuclear Science and Technology Organisation (ANSTO) in Sydney today. Jaroslav Blazek and Dr Elliot Gilbert of ANSTO are presenting a paper that shows that the tiny pores and channels in starch play a key role in understanding processes of digestion.

This is essentially the break-down of larger food molecules to smaller ones until food can be absorbed be absorb into a bloodstream. The study is notable because using the state of the art facilities of the OPAL reactor and a 40 metre long beam-line instrument known as Quokka, the researchers have produced the first study of the digestion of starch while it is being simultaneously probed with a neutron beam. This has enabled to researchers to understand what is happening at the molecular level.

Currently, bowel cancer is one of the most dangerous types of cancer, and preventative measures would circumvent highly invasive procedures such as surgery and chemotherapy.

Blazek and Gilbert recently published their findings in the international journal, *Biomacromolecules*.

Today is the last day of the Neutrons and Food workshop at the Amora Hotel Jamison in Sydney.

**For media information please call ANSTO 9717 9208 or 0429 074 527.**