

# Researchers One Step Closer to Understanding Underlying Causes of Cancer and Diabetes

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(PhysOrg.com) -- A Saskatchewan Cancer Agency researcher and her team have discovered a new link between the "on" and "off" switches that control cell growth and insulin responses in the body. This work could have implications for cancer and diabetes treatment.

The p85 protein is known to control the “on switch” for cell division and if it is too active, [cancer](#) can result. This “on switch” is also important for cells to respond to [insulin](#) and if it is not active enough insulin-insensitive [type 2 diabetes](#) can result.

The new discovery, published this week in the [Proceedings of the National Academy of Sciences](#), shows that p85 can also control the “off switch” for these responses.

“By understanding the connection between the switches that control cell responses for growth and insulin we are able to improve our ability to use anti-cancer therapies to target these switches more effectively,” said Deborah Anderson, Senior Research Scientist with the Saskatchewan Cancer Agency and a cross appointment in oncology and biochemistry at the University of Saskatchewan.

Funding for this research originally came from the Canadian Institutes of Health Research (CIHR) Regional Partnership Program - Saskatchewan (RPP-SK), with matching funding from the Saskatchewan Health

Research Foundation (SHRF).

Provided by Saskatchewan Cancer Agency

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