

New research improves our understanding of cancer cell regulation

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A team of cancer researchers from the University of Liverpool, has made an important contribution to our understanding of cancer cell regulation which could better inform future cancer treatments.

The research is funded by North West Cancer Research, which has ring-fenced £180,000 for the three year-long project which started in 2015.

Led by Professor Ian Prior at the University of Liverpool, in collaboration with researchers at AstraZeneca, the research focuses on a group of proteins found in the human body called kinases.

Their research measures how changes in kinase activity can influence the growth, development and regulation of [cancer cells](#). They measure kinase network rewiring that occurs in cancer patients so that they can identify new strategies for killing [cancer cells](#).

Their insights into this important family of proteins have been published in the highly regarded *Cancer Research* Journal and will provide a foundation for future research on the use of kinases in cancer treatments.

Some kinases are currently being successfully targeted in cancer therapies, which work by inhibiting kinases that trigger cancer cells to divide and grow. Yet there is still a lot to learn about kinases and the important role they could play within future cancer treatments.

The research has been published in the journal of *Cancer Research*.

Professor Prior, NWCR Chair of Molecular Oncology at the University of Liverpool explains: "Our research focused on getting under the microscope of cancer cell behaviour and understanding the effects that different proteins can have on this behaviour.

"Research into kinases, has been underway for many years now, but most attention has been focussed on only a few types, with relatively little known about the remaining types.

"Our publication in the *Cancer Research* Journal, highlights emerging and overlooked areas within [kinase](#) research and discusses the successes and challenges associated with treating [cancer patients](#)."

North West Cancer Research secured £4million of funding for [cancer research](#) projects across Merseyside and the North West in 2017.

This includes £1million of funding to sustain research at the North West Cancer Research Centre at the University of Liverpool until 2021.

Alastair Richards, CEO North West Cancer Research said: "As a funder of cancer research, we are always pleased to hear when projects we have supported generate important breakthroughs in our understanding of cancer.

"We are committed to funding only the best quality research to help the fight against cancer here in the North West. But we cannot do this alone. We rely solely on public donations - which is why every penny we raise is so important.

"Without the help of our supporters and fundraisers we would not be able to continue to support the lifesaving research which is being carried

out on our doorstep today."

More information: Leah J. Wilson et al, New Perspectives, Opportunities, and Challenges in Exploring the Human Protein Kinome, *Cancer Research* (2017). [DOI: 10.1158/0008-5472.CAN-17-2291](https://doi.org/10.1158/0008-5472.CAN-17-2291)

Provided by University of Liverpool

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