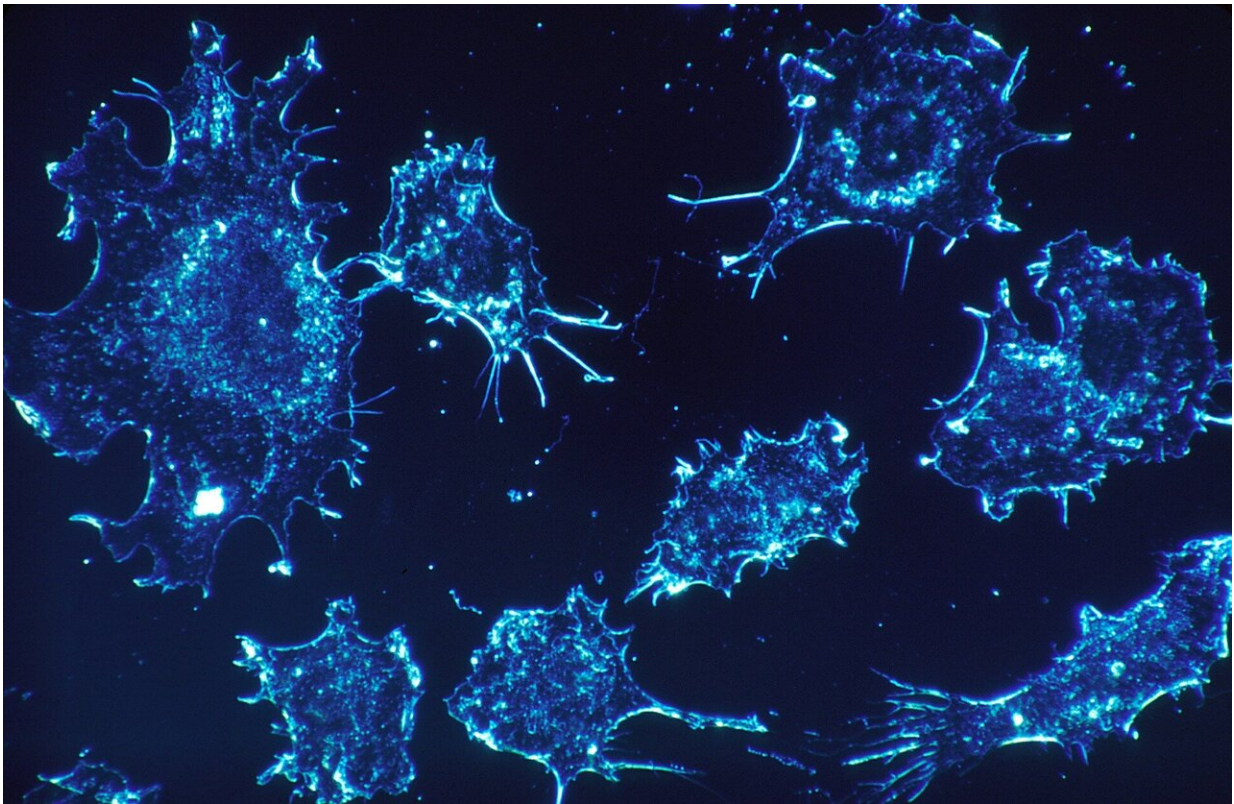


Using the immune system as a defence against cancer

September 26 2019



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Research published today in the *British Journal of Cancer* has found that a naturally occurring molecule and a component of the immune system that can successfully target and kill cancer cells, can also encourage immunity against cancer resurgence.

Several teams led by Professor Livio Mallucci from King's College London discovered that β -galactoside-binding protein (β GBP), a naturally occurring molecule produced by [immune cells](#) can non-specifically target [cancer cells](#), make them undergo [cell death](#) and through a stress response pathway make the cancer cells visible to the immune system to prompt an anti-cancer immune response that would secure protection against recurrences.

Major developments in anti-cancer therapies have taken place over the last decade, but as only a subset of patients respond to treatments, there is a need for further development. Crucially, there is a need to induce the immune system to ensure long-term protection against the recurrence of cancer.

Current approaches to achieve this involve killing cells by using chemotherapeutics and other agents which can be harmful and have uncertain outcomes.

"By contrast, the anti-tumour property of β GBP is selective and not harmful to normal cells. β GBP is effective against the most aggressive colorectal cancer cells and a wide range of other cancer cells equally unresponsive to current therapies. This research presents experimental evidence for a strategy where the targeting of cancer cells and the stimulation of immunity combine to prompt immediate and long-term responses against aggressive cancer," said lead author Professor Livio Mallucci from King's College London, School of Cancer & Pharmaceutical Sciences.

"Translation of β GBP to the clinic could open a new therapeutic opportunity which safely combines direct killing of cancer cells and the stimulation of the [immune system](#) against recurrences, a significant step forward in the management of cancer."

Provided by King's College London

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