

Research reveals cancer-killing benefits of popular obesity treatment

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Maynooth University's Kathleen Lonsdale Institute for Human Health Research has just published research into the benefits of the popular obesity treatment drug, GLP-1.

Previous research has found that people with obesity are at a greater risk of developing [cancer](#), in part due to their anticancer immune cells—better known as the 'Natural Killer (NK)' cell—being rendered useless due to their disease.

New research carried out by Dr. Andrew Hogan and his team in the Lonsdale Health Institute at Maynooth University, has found that the popular, and gold-standard pharmacological treatment for obesity, Glucagon-like peptide (GLP-1) analogues, can actually restore the NK cell function in the body including its ability to kill cancerous cells.

The World Health Organization estimates that 13% of the global adult population suffers from obesity; a disease linked with a higher risk of getting cancer. These cancers make up 40% of all cancers diagnosed in the United States each year.

The research, published in *Obesity*, also shows that the restored cancer-killing effect of NK cells is independent of the GLP-1's main weight loss function so it appears the treatment is directly kick-starting the NK cells' engine.

Dr. Andrew E. Hogan, Associate Professor & Principal Investigator, Lonsdale Human Health Institute in Maynooth University discussed the findings: "My team and I are very excited by these new findings in relation to the effects of the GLP-1 treatment on people with obesity and it appears to result in real tangible benefits for those currently on the drug."

"While these findings will understandably be welcomed by those living with obesity and looking for safe and effective treatments, given the recent spike in popularity related to the benefits of the GLP-1 treatment with global and high-profile celebrities commenting on its success, global demand has increased and resulted in a worldwide shortage of the

drug.

"I hope this is something that is brought under control to ensure as many people as possible living with obesity can start their own treatment of this beneficial drug."

Conor de Barra, Ph.D. student in immunology at Maynooth University and Irish Research Council Scholar, who led the work in Dr. Hogan's lab said, "People with obesity can develop a variety of health problems like type 2 diabetes, sleep apnea and cancer. These can have very negative impacts on their quality of life. This research and other promising findings on improvements in cardiovascular health after GLP-1 therapy indicate its potential benefits in addition to weight-loss."

Prof Donal O'Shea, HSE National Lead for Obesity & Principal Investigator, said, "We are finally reaching the point where [medical treatments](#) for the disease of obesity are being shown to prevent the complications of having obesity. The current findings represent very positive news for people living with [obesity](#) on GLP-1 therapy and suggest the benefits of this family of treatments may extend to a reduction in cancer risk."

Dr. Hogan will present these findings at the 30th European Congress on Obesity, which will be held in Dublin on 20th of May.

More information: Glucagon-like peptide-1 therapy in people with obesity restores natural killer cell metabolism and effector function, *Obesity* (2023). [DOI: 10.1002/oby.23772](https://doi.org/10.1002/oby.23772)

Conference: eco2023.org/

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