

NEW ANTIBODY FOR CANCER TREATMENT

Relevant for: Science & Technology | Topic: Biotechnology, Genetics & Health related developments

A team of researchers in Spain, Switzerland and the U.S. has homed in on a specific antibody, called the p95HER2-T cell bispecific antibody (TCB), that can successfully guide immune cells, known as lymphocytes, directly to cancerous ones for their targeted killing. Among the key hurdles in cancer immunotherapy — an emerging approach to cancer medicine — is to ensure that these therapeutics only target cancerous cells and not healthy tissue. This direct delivery is achieved thanks to the p95HER2 protein, which is only located in tumour cells. The study represents a new therapeutic avenue and fresh hope for patients who have ceased to respond to current therapies. This novel immune-based approach, say the researchers involved, can be used to tackle certain HER2+ breast cancers through its exclusive targeting of cancerous cells. Each antibody molecule has a bipartite structure containing two protein-binding sites. This means that they can simultaneously attach to immune cells and cancerous ones as well as take the lymphocytes hand-in-hand directly to the malignant cells for their subsequent destruction. The findings have been published in *Science Translational Medicine*.

As the second most common cause of death in India, every conversation around cancer counts, especially when it comes to women's cancer

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