# Oxford Scientists Discover Proteins in Blood Linking to Early Cancer Detection



Scientists at the University of Oxford have discovered proteins in the blood that could indicate the presence of cancer up to seven years before diagnosis. The findings emerged from two studies funded by Cancer Research UK and have the potential to significantly improve early cancer detection and prevention.

The first study analyzed blood samples from over 44,000 individuals, including 4,900 who later developed cancer. Researchers identified 618 proteins linked to 19 different types of cancer, such as breast, lung, colon, and liver cancers. Among these, 107 proteins were associated with cancers diagnosed more than seven years after the blood samples were taken.

The second study reviewed genetic data from more than 300,000 cancer cases and found 40 proteins influencing the risk of developing nine types of cancer, including bladder, breast, lung, ovary, and kidney cancers.

Dr. Karl Smith-Byrne and Dr. Joshua Atkins from Oxford Population Health led the studies, which are seen as crucial steps toward developing preventative treatments for cancer. Professor Ruth Travis emphasized the need to understand the earliest stages of cancer development, stating that the research provides new insights into the biology and causes of multiple cancers.

The findings were published in the journal Nature Communications and are part of ongoing efforts to develop blood tests for earlier-stage cancer detection and potential new treatments. Further research is needed to fully understand the role of these proteins and to develop reliable clinical tests and targeted drugs.