New System Aids Researchers in Uncovering Chemical Clues to Cancers

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Researchers at the University of Birmingham will soon be able to benefit from a state of the art system to help uncover chemical indicators (biomarkers) for a number of common cancers.

The team from the University's Institute for Cancer Studies will be the first researchers in Europe to use the £300,000 BioXPRESSION system for biomarker identification, which is designed and produced by Perkin Elmer. The new equipment allows researchers to screen thousands of blood samples, with exceptional accuracy.

The system assists throughout the whole process of biomarker identification, from purifying and cleaning samples to detailed analysis of proteins, which may indicate the presence of a cancer.

Professor Philip Johnson from the University's Institute of Cancer Studies leads a team working to uncover chemical markers for a number of common cancers including lung and liver cancer. Identifying chemical patterns, could eventually allow cancer specialists to routinely test blood for certain cancers.

The most recent work of the Birmingham group has focused on using blood protein spectrum measurements to detect changes in the blood, which are characteristic of early liver, lung and bowel cancer.

Professor Johnson said: "Biomarker discovery is a key area of research in the fight against cancer. Too often we detect the disease too late in its development, making treatment more difficult. If we can become better at reading the chemical signals that indicate certain cancers, then developing blood tests becomes a possibility. Having access to this new system will give us a greater level of accuracy in monitoring samples for a range of cancers, including colo-rectal, liver and lung cancer."

David Latto from Perkin Elmer said: "In bringing our new BioXPRESSION biomarker profiling platform to market, it is essential that PerkinElmer work in partnership with research groups and key opinion leaders around the world. Identifying cancer biomarkers is a critical and rapidly developing area of research so we are delighted to announce the partnership with Prof Johnson's team. The BioEXPRESSION platform builds on the technology currently being used in Birmingham to identify markers for liver, bowel and lung cancer to help researchers test large volumes of samples with greatly improved accuracy and speed."

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NOTES TO EDITORS

The Cancer Research UK Institute for Cancer Studies at the University of Birmingham continues to be at the forefront of cancer research within the UK, enjoying an international reputation in cancer genetics, signal transduction, viral oncology and immunology, cancer gene- and immunotherapy and cancer clinical trials. The Institute forms part of the Division of Cancer Studies which is one of the six divisions of the Medical School and incorporates the Department of Pathology