

# Blood test spots tumours early

**Tom Whipple** Science Editor

A new blood test can pick up signs of lung cancer recurrence up to a year before conventional scans, scientists have revealed.

The technique, which could be applied to other cancer types, involves spotting evidence of cancer in patients' blood at a stage when the tumour itself is a fraction of a millimetre across — far smaller than can normally be noticed.

By catching any relapses that early, doctors may be able to hit tumours long before any physical symptoms appear, offering a better chance of survival.

The cancer was identified through a technique known as a “liquid biopsy”, which looks for DNA in the blood. When cancer cells die they shed DNA, but to spot it doctors need to know what

they are looking for. The 100 lung cancer patients involved in the trial all had their original tumours sent for genetic analysis at the Francis Crick Institute in London after they were removed. This enabled doctors to personalise the test for each patient's particular cancer and home in on mutated DNA as soon as it reappeared in the bloodstream. They reported in the journal *Nature* that the circulating DNA closely matched patients' subsequent cancer status.

Christopher Abbosh, from the UCL cancer institute, said: “This represents new hope for combating lung cancer relapse following surgery, which occurs in up to half of all patients”.

Paula Chadwick, of the Roy Castle Lung Cancer Foundation, described the research as “truly significant”.

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