

A new test to select more effective treatments for lung cancer

Sadly, the majority of patients with Lung Cancers who cannot be treated by surgery to remove their tumour, die within a few years. Small numbers are beginning to benefit from chemotherapies which target very specific types of tumour but more needs to be done to identify drugs that will work for the rest of these patients. This study describes the development of a novel test that can be performed in the laboratory to screen a large panel of chemotherapies to find out which will be most effective at killing an individual patient's tumour.

The test can also be used to screen new drugs being developed, before they are tested in humans. We believe this test more accurately mirrors the biology of real tumours in comparison to current tests, which means it is more likely to select drugs that will work in the clinic. Using the technique we tested 30 lung cancer patients' tumours with a range of current chemotherapies and found the majority were resistant to therapy, highlighting the need for new drugs. A new class of drug (called Histone Deacetylase Inhibitors) was also tested in these patient tumours and found to be very effective, pointing to its future use in treating lung cancer.

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[3-Dimensional Patient-Derived Lung Cancer Assays Reveal Resistance to Standards-of-Care Promoted by Stromal Cells but Sensitivity to Histone Deacetylase Inhibitors.](#)

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