

Pioneering project at Edinburgh Experimental Cancer Medicine Centre

✘ Scots patients are among the first taking part in a pioneering initiative to demonstrate how genetic tests could be used within the NHS to help match cancer patients to the most appropriate treatment, while building a database of information for research into new targeted therapies.

Cancer Research UK's Stratified Medicine Programme* ultimately aims to establish a world-class NHS genetic testing service for cancer patients in the UK. This means as and when new targeted treatments become available, doctors will have access to the tests they need to help them decide which drugs are best for their patients.

Medical staff from Cancer Research UK's **Edinburgh Experimental Cancer Medicine Centre** (ECMC), and six of the charity's other ECMCs, will ask up to 9,000 patients to participate in the first phase of the Programme. This covers six different tumour types: breast, bowel, lung, prostate, ovary and melanoma skin cancer.

Patients will be recruited through a network of more than 20 hospitals around the country, including Western General Hospital and the Royal Infirmary of Edinburgh.

Patients will be asked to give consent for a small sample of their tumour to be sent to one of three leading NHS genetic testing labs – based at the ICR, Cardiff All Wales Regional Molecular Genetics Laboratory and the West Midlands Regional Genetics Laboratory in Birmingham – where DNA will be extracted and analysed for a range of molecular faults linked to cancer.

This information will be stored alongside other relevant clinical information to allow researchers to compare the success of different treatments in relation to specific faults within cancer cells.

So although the programme will not alter patients' treatment at this stage, it's hoped it could help scientists design better targeted treatments in the future.

Cancer Research UK, Astra Zeneca and Pfizer are funding the £5.5 million programme. The charity's share is being funded through its Catalyst Club – a pioneering venture to raise £10 million to propel forward the use of personalised cancer treatment, including Cancer Research UK's Stratified Medicine Programme.

The initiative is closely aligned with the government's Technology Strategy Board (TSB)'s £6 million investment in the development of tests for analysing a tumour's genetic profile and secure software that can link this information to relevant clinical information.

✘ Professor David Harrison, lead researcher at the Edinburgh ECMC, based at the University of Edinburgh, said: "We're delighted to be involved in this exciting initiative, which will give Scottish people the chance to play a key part in making targeted treatments available for cancer patients across the UK.

"We are extremely grateful to all these patients who, by contributing to this research, are allowing us to take great strides towards beating cancer."

The other ECMCs involved in the initiative are in Leeds, Glasgow, Cambridge, Cardiff, Manchester and London, collectively covering more than 20 hospitals.

James Peach, director of Cancer Research UK's Stratified Medicine Programme, said: "In the 10 years since the Human

Genome Project was completed we've made huge progress in unravelling the genetic basis of cancer and understanding what drives it at a molecular level. We know that prescribing treatment according to the genetic basis of a tumour greatly improves the chances of successful treatment. And by hardwiring research into the day-to-day care of cancer patients, we can harness the power of the NHS to bring personalised medicine a step closer to reality.

"This programme marks the beginning of the journey, and there is much to be done before we can bring the benefits of personalised medicine to every cancer patient. But I'm confident that within the next few years we'll see personalised medicine changing the face of cancer treatment and saving many more lives from cancer."