



Professor Nazneen Rahman (right) and Dr Clare Turnbull of The Royal Marsden's Cancer Genetics Unit and The Institute of Cancer Research

## ROYAL MARSDEN PILOTS NEW CANCER GENE-TESTING PATHWAY

**T**he Royal Marsden has completed a six-month pilot of a new 'oncogenetic' gene-testing pathway that is much faster and less costly than standard pathways, with more than 100 patients benefiting from *BRCA1* and *BRCA2* gene tests since the pilot began in July 2013.

The oncogenetic pathway brings gene testing to the patient through their existing oncology appointments, allowing more people to have access to gene testing. Previously, patients could only have a gene test via referral to genetics departments.

Oncologists can order gene tests for eligible patients directly, but also retain the flexibility to refer them to geneticists. Any patient found to have a gene

mutation is seen by a geneticist; those with normal results can be referred in the standard manner, if required.

The gene testing was performed by TGLclinical, a laboratory established with funding from The Royal Marsden Cancer Charity and The Institute of Cancer Research (ICR). TGLclinical's state-of-the-art gene-sequencing equipment can perform more tests faster and at a lower cost than traditional methods.

The new laboratory test and clinical testing pathway are now ready for roll-out to other hospitals, and a second pilot involving more centres is being planned.

Professor Nazneen Rahman, Head of the Cancer Genetics Unit at The Royal Marsden and

Head of Genetics at the ICR, said: "Using new sequencing technologies and the oncogenetic testing pathway, we can make gene testing accessible to many more people. We are delighted that the feedback from patients and clinicians in the pilot has been overwhelmingly positive."

In 2013, the National Institute for Health and Care Excellence (NICE) recommended that people with a more than 10 per cent chance of having a mutation in either the *BRCA1* or *BRCA2* gene – which equates to more than 10,000 cancer patients a year – should be offered testing. However, limited capacity and the high costs of traditional gene-testing pathways limits the testing that doctors can provide.

Professor Rahman said: "The oncogenetic gene-testing pathway could be used to deliver the NICE recommendations cost-effectively. Ultimately, we hope that the clinical and technological advancements we are developing will benefit patients anywhere in the NHS."

Professor Martin Gore, Medical Director of The Royal Marsden and one of the Consultant Medical Oncologists who participated in the pilot, said: "Knowing whether a patient has a gene mutation is an important part of making personalised treatment plans. Patients are also increasingly aware of the value of gene testing, and more are requesting it.

"The oncogenetic pathway makes gene testing quicker and simpler, but still provides input from genetics when we need it. Many of our patients have already benefited as a result of being able to have a gene test. The Royal Marsden is delighted that we can offer this testing to our patients."

*New technologies and the oncogenetic testing pathway make gene testing accessible to many more people*

PROFESSOR NAZNEEN RAHMAN, HEAD OF THE CANCER GENETICS UNIT AT THE ROYAL MARSDEN