

NATIONAL INSTITUTE FOR HEALTH RESEARCH (NIHR) BIOMEDICAL RESEARCH CENTRE

Following a joint bid, The Royal Marsden NHS Foundation Trust and The Institute of Cancer Research have been awarded a grant to become a National Institute for Health Research (NIHR) Biomedical Research Centre.



In 2005, the Department of Health announced a new strategy setting out proposals for the future direction of health research. The 'Best Research for Best Health' scheme includes the creation of Biomedical Research Centres of excellence across England to drive the development, testing and uptake of new and better ways to prevent, diagnose and treat ill-health.

In December 2006, following an open competition process, The Royal Marsden and The Institute were selected to be one of just 11 Centres in England, and the only one specialising in cancer. Selection was based on proven excellence, research capabilities and the strength of forward planning, and acknowledges The Royal Marsden and The Institute as one of the UK's leading clinical and academic partnerships.

▣ The Centre will receive funding of £10 million a year for translational research which will take the latest advances in cancer research straight from the laboratory bench to the hospital bedside. ▣

At the new Biomedical Research Centre, work will focus on 10 themes with a strong emphasis on the development of new drugs which are designed to target specific molecules in tumour cells (targeted therapies):

1. **Cancer Genetics** – identifying new cancer predisposition genes and developing improved methods for predicting cancer risk.

2. Molecular Pathology – identifying molecular markers and targets in tumours in order to predict response to cancer therapies; the emphasis will be on sarcomas as well as gastrointestinal, gynaecological, and renal cell malignancies.

3. Drug Development – early stage clinical trials of novel targeted therapies.

4. Breast Cancer – developing short-term studies which will allow the rapid assessment of new targeted therapies.

5. Haemato-oncology – developing targeted drugs for leukaemias, lymphomas and myeloma, and studying genetic variations to see the effect on both side effects and outcomes of treatment.

6. Urological Cancers – developing improved radiotherapy techniques for prostate and bladder cancer, and advancing our understanding of the genetic and environmental causes of prostate and testicular cancer.

7. Paediatric Cancer – testing targeted therapies and conducting early clinical trials with the aim of increasing the number of children in early studies to ensure that a greater number take part in national Phase III studies, ultimately leading to improved survival.

8. Head and Neck Cancer – focusing on the use of new radiotherapy techniques to improve radiation planning and dose delivery, and assessing the tolerability and efficacy of new targeted drugs.

9. Radiotherapy and Physics – developing new technologies to improve radiation planning and dose delivery; collaborating with the imaging team for research into image guided radiotherapy.

10. Cancer Imaging – supporting those areas involved in diagnosis and treatment evaluation, particularly identifying the response to targeted therapies.

Maximising patient benefit

The Institute and The Royal Marsden already have an excellent track record in translating basic research into clinical practice which benefits patients, and the new grant will build on this strength.

In practice, this means developments such as:

- research into new radiotherapy techniques may reduce both the duration of treatment and its toxicity, thereby

reducing costs for the NHS and improving quality of life for patients;

- analysing tumours before patients are treated may help us predict who will be likely to benefit from which drugs;
- developing and testing targeted drugs will enable clinicians to use more specific anticancer agents, allowing more targeted treatment;
- genetic studies could allow the identification of people at risk of cancer and aid decisions.

Dr Stephen Johnston, Director of Clinical Research and Development at The Royal Marsden and The Institute, will be Director of the Biomedical Research Centre.

He said: "It is very encouraging that the NIHR sees cancer research as a real priority, as cancer is one of the UK's biggest killers."

"This new funding will allow us to take forward our ambitious future plans for research and drug development. In particular, our focus is to translate new research findings on the causes of cancer into better diagnosis, treatment and ultimately prevention."

The Royal Marsden has also been awarded funding to go towards building a Translational Research Facility at its Chelsea site. This will improve the collection and analysis of tumours and provide an on-site facility to test the effects of novel cancer drugs whilst they are being evaluated in the clinic.

