

India, UK to collaborate on cancer research



The United Kingdom's Medical Research Council (MRC) and India's Department of Biotechnology (DBT) have entered into a 3.5-million pound agreement, under which the Bengaluru-based National Centre for Biological Sciences (NCBS) will work with the University of Cambridge to unearth the multiple causes of cancer.

While the UK's MRC is keen on application-based research, the NCBS has also been pursuing a similar research line. All the prime research bodies from both the countries have been invited to set up their best teams on cancer research. This project will be carried out under the MRC-DBT Joint Centre for Cancer Biology and Therapeutics. The World Health Organisation (WHO) estimates that the number of new cancer cases will rise by about 70 per cent over the next two decades.

Describing the joint effort, Prof K Vijay Raghavan, secretary, Department of Biotechnology, said, "The Department of Biotechnology, Government of India, is delighted to partner with the MRC in creating research centres that will address the vexing challenges in medicine, through quality science and collaboration."

Dr Mark Palmer, MRC director of International Strategy, has put the collaboration in perspective. "With a 100-year history of strategic international collaboration, the MRC scientists today work with researchers in more than 100 countries. We know diseases don't recognise international borders and that addressing health problem around the world demands a global response. These partnerships between excellent scientists in India and the UK is a key part of our international effort to pool expertise and resources, and deliver research that will make a real difference to global health." On his NCBS page, Dr Sudhir Krishna has written that cervical cancer, a major cause of female mortality in the developing world, is caused by high-risk human papillomaviruses.

"Papillomavirus belongs to the family of small DNA tumour viruses and the study of these agents has been extraordinarily influential in driving key concepts in cancer biology. Our laboratory for over two decades has been interested in the signals that complement the function of papillomavirus oncogenes (for review see Malliekal T. et al., Oncogene 2008) and our focus has been on the role of Notch signaling."

Tumours

Krishna has also said that in recent times, it has been found that unique sub-sets of cells with enhanced tumorigenic functions and resistance to conventional therapy drive many tumours. “The origin and nature of such cellular heterogeneity is of enormous clinical significance. However, even in extensively characterized tumours like human breast cancers, no clear consensus has emerged on the biological features including plasticity, differentiation status, mechanism of induction or evolution of metastatic characteristics in such subsets.”