

# H E A L T H

**Technologies for Better Quality of Life**

## **ADVANCED CENTRE FOR TREATMENT, RESEARCH AND EDUCATION IN CANCER (ACTREC)**

The Tata Memorial Centre (TMC), an aided institution of DAE, has set up a new facility the Advanced Centre for Treatment, Research and Education in Cancer (ACTREC) at Navi Mumbai. ACTREC has two wings — one for basic research and the other one for clinical research.

The Basic Research Wing has been nucleated by shifting the erstwhile Cancer Research Institute (CRI) of TMC, from Parel to Navi Mumbai.

The basic research at ACTREC will focus on frontline areas such as vector development, gene therapy, basic immunology, immunotherapy, molecular genetics, molecular epidemiology, drug development and other fields that have been initiated only in the very recent past.



The Clinical Research Centre at ACTREC is coming up as a 50-bed facility that would be dedicated to protocol-based clinical research trials under GCP conditions. A well-equipped pharmacokinetic and pharmacogenomic unit is being set up to support this activity. This would enable the centre to carry out investigational new drugs trials as well as newly emerging therapies such as

gene therapy and immunotherapy etc. This activity is crucial for the discovery of new drugs.

The clinical facilities at the centre include a seven-bed bone marrow transplant unit, a six-bed ICU, two OTs, a blood transfusion unit, a radiotherapy set-up and all the other state-of-the-art diagnostic and therapeutic services. A complete online patient database will be maintained for the management of clinical protocols. Also, a dormitory with ambulatory care facilities will be built on the campus to provide continuity of medical care to patients entered in research protocols. To begin with, problems related to paediatric cancers would be addressed at the centre. It is hoped that in the course of time the centre would emerge as major paediatric oncology centre in the country.

Another major focus of the centre would be on cancer genetics. A state-of-the-art DNA diagnostic facility is being set up at the CRC for this purpose. It will also be equipped to carry out detailed molecular profiling of tumours with the objective of seeking a better correlation with prognosis and response to treatment.

The patterns of cancers in India are often determined by our lifestyles and are specific to this subcontinent. The advances in cell and molecular biology, have resulted in new concepts of development and progression of cancers. ACTREC positions itself in the frontline of an exciting biomedical and genomic era.

Validation of new tumour markers, genetic studies, prognostication based on studies concerning tumour biology and host factors, predictive oncology regarding tumour behaviour, response to anti-cancer drugs etc. will be some of the important activities that will be addressed by this centre.

Advances in diagnostic and treatment methodologies by radiation techniques have played a major role in the cancer cure during the last three decades. The models to address this problem of advancing radiological sciences and intensify the activities to achieve self-reliance and indigenous development of teletherapy and accelerator units will be another focus at ACTREC.

To promote professional excellence in the field of oncology and to have uniformity in the existing disparate standards across the country, an Academic Centre of Cancer Education will form an important component of the ACTREC. This academic centre, apart from imparting diplomas and degrees in cancer research and therapy to scientists and doctors, will co-ordinate, monitor and implement cancer education at various levels viz. professional, public, para-medical, etc..

With its expertise in vast areas of cancer research and its continuous update, the technology and trained scientists, the ACTREC will act as a regional centre of excellence.