

Regional Centre for Biotechnology & Translational Health Science and Technology Institute

Twin institutions in the Biotech Science Cluster, NCR Delhi, the Regional Centre for Biotechnology (RCB) and the Translational Health Science & Technology Institute (THSTI) are complementary yet independent and are designed to synergize the growth of biotechnology through proactive and collegial interactions. While RCB will work on the development of human resources in biotechnology in an interdisciplinary research milieu, THSTI is envisaged to focus on science for human health covering mechanistic approaches as well as broad questions in niche domains.

It is understood that increasing the number of skilled scientists raises the benchmark for scientific discourses as well as technological innovations. Indeed, scientific skills and innovation are enhanced by the interactions that come from proximity. It is through such interactions that exponential growth can be triggered. However, much of our visible growth in research in the recent past has been in small institutions in dispersed locations. Combining the advantages of large and small is possible by having small autonomous institutions co-located in a cluster. It is important however, that each of the components of such an interactive science cluster develop its own optimally designed processes that must be nurtured without interference. Such bottom-up

approach with organically developed collegiality that empowers the participating scientific communities is likely to prove durable. This is the conceptual foundation for clustering major institutions with related yet distinct missions and mandates.

A major beginning in this direction has been recently made with the establishment of the Regional Centre for Biotechnology (RCB) and the Translational Health Science and Technology Institute (THSTI) within the Biotech Science Cluster in the National Capital Region (NCR) by the Department of Biotechnology, Govt. of India. The RCB will work on the development of human resources through education and mentoring in a globally competitive research milieu. It will provide a platform for interdisciplinary

research & education at the biotech interface of engineering & medicine, chemistry & physics, agriculture & climate science to empower human resources to drive biotech innovations. The THSTI is envisaged as a group of autonomous centres focused on science for human health ranging from a mechanistic approach to broad questions to specific domains such as pediatric biology, vaccine design, health technologies, molecular diagnostics and bio-imaging.

The twin institutions will create core technology resources using an innovative and efficient management structure allowing effective cluster-wide access to technologies such as stringent containment facilities for bio-hazardous work, engineered laboratory animal resources,



ARCHITECT'S DESIGN OF PROPOSED CAMPUS OF RCB AND THSTI AT FARIDABAD

► high-end imaging, modalities for collection of large data sets such as proteomics, genomics and metabolomics, the maintenance of large bio-library and high-throughput screening resources. Further, the cluster will eventually develop a clinical research centre as well as a network of off-campus partner institutional resources for clinical as well as population studies. The other institutions presently associated with the cluster are the National Institute of Immunology, New Delhi, National Institute of Plant Genome Research, New Delhi and National Brain Research Centre, Manesar. Downstream technology development will be nurtured within the cluster by the creation of incubator resources for participatory product and business development efforts.

REGIONAL CENTRE FOR BIOTECHNOLOGY (RCB)

The Regional Centre for Biotechnology, an institution of education, training and research was established by the Department of Biotechnology, Government of India under the auspices of UNESCO as a category II institution. The Centre is aimed at focussing on multi-disciplinarity to germinate innovation in

Biotechnology. It is earnestly hoped that the international nature of this Institute and the partnership with UNESCO will create opportunities for new ideas in education and training on a worldwide basis.

GENESIS: The Government of India and the UNESCO fully realizing the need of research, training and education for generating interdisciplinary human resource relevant to biotechnology, took a joint decision to establish the Regional Centre for Biotechnology (RCB). Accordingly, an Agreement was signed dated 14th July 2006 for the establishment and the operation of this Centre for creating world class education and research in biotechnology through global cooperation.

This Centre would be beneficial to all countries in the region including India in developing knowledge-rich highly skilled human resource, harmonization of policies & procedures in biotechnology and indirectly promoting trade. Biotechnology being essential globally, the partnerships are being visualized as much within as across countries. RCB will create a platform from which many such partnerships will emerge. In other words, RCB is envisioned as a Centre of

education, training and research in biotechnology with intimate contributions from countries of the region and academic institutions from the rest of the world and provides a meeting place where innovation, enterprise, and industrial development will germinate.

MISSION: Providing a platform for biotechnology education, training and research at the interface of multiple disciplines is the RCB's mandate. The programmes of the Centre are designed to create opportunities for students to engage in multi-disciplinary research where they learn biotech science while integrating engineering, medicine and science, to provide solutions for human and animal health, agriculture and environmental technologies. The vision is to produce human resource tailored to drive innovation in biotechnology, particularly in areas of new opportunities and also to fill talent gap in deficient areas. The mission is to provide high quality human resource in disciplinary and interdisciplinary areas. This will also create amazing opportunities for students to engage in research by integrating science, engineering and medicine so as to provide health care solutions for human

