

### **Recent Biotechnology Research related Legislations**

The biotechnology as a subject involves the modification of the basic genetic material such as DNA and RNA for a number of useful applications. The Recombinant DNA Technology (RDT) is being successfully used in various sectors such as agriculture, health care, process industry and environment management. Therefore, certain rules and regulations have been kept in place to regulate the activities involving handling, manufacture, storage, testing, and release of genetic modified materials in India. The Department of Biotechnology (DBT) has been constituted as a nodal agency for policy, promotion of R&D, international cooperation and manufacturing activities. The Genetic Engineering and Approval Committee (GEAC) constituted under Ministry of Environment and Forests (MoEF) and DBT, together are the leading regulatory body in biotechnology in India. Some of the recent legislations passed in area in India are:

**The DNA Technology (Use and Application)' Regulation Bill:** The regulation bill was formulated for the regulation of the use and application of DNA technology. Such technology helps in establishing the identity of certain category of persons including the victims, offenders, suspects, under trials, missing persons and unknown deceased persons and provides provision for establishment of a DNA Regulatory Board (DRB). The regulation bill was passed in the Lok Sabha in January 2019.

**National Guidelines for Stem Cell Research:** The DBT and Indian Council of Medical research (ICMR) has formulated and revised National Guidelines for Stem Cell Research. As per the recommendation of the inter-ministerial meeting, "National Guidelines for Stem Cell Therapy" are also being formulated jointly with ICMR and other stakeholders. The guidelines lay down standards for stem cell research and ensure that research with human stem cells is conducted in a responsible and ethically sensitive manner in the country.

**Regulations and guidelines on Biosafety of Recombinant DNA research & Biocontainment, 2017:** The DBT has revised the Recombinant DNA Safety Guidelines, 1990 and the new guidelines were released in 2017 at Geneva, Switzerland.

**Regional Centre for Biotechnology (RCB) Act, 2016:** The RCB Bill, 2016 establishes Regional Centre for Biotechnology as an institution of education, training and research, under the auspices of United Nations Educational, Scientific and Cultural Organization (UNESCO) in the national capital region (NCR) and declares it as an institution of national importance. The Act has come into effect in 2017.

**Course Curriculum Revision for Post-Graduate teaching Programmes in Biotechnology:** In 2017, the model course curricula has been developed and released by DBT, Government of India, through a consultative process to maintain uniformity and to ensure standard of quality education in area of biotechnology.

**The National Biotechnology Development Strategy:** In 2015, the DBT, Government of India announced the National Biotechnology Development Strategy.

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