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## **Recombinant DNA and Biotechnological Safety**

## 1 Recombinant DNA and Animal Viruses

1.1 Projects involving the manipulation of recombinant DNA molecules, synthetic nucleic acid molecules or animal viruses are allowed if conducted under the direction of a Qualified Researcher working in a Research Institution or Hospital. Written evidence of this supervision, including the supervisor's name, institution, and qualifications must be available at the project during the fair. Institutional regulations and guidelines regarding the use, storage, transport and disposal of recombinant DNA and their vector, animal virus and other genetic mobile elements must be observed at all times

## 2 Biotechnological Safety

- 2.1 Biotechnological investigations involving enzymes pose risks of allergic reactions. Work involving DNA technology can be accomplished safely if appropriate precautions are taken. The use of DNA is, in itself, usually safe, but hazards can arise from chemicals and electrical equipment employed in the manipulation of DNA. Extremely hazardous chemicals, such as ethidium bromide, used to visualize DNA, should be avoided and substituted with safer alternatives. Electrophoresis of DNA fragments should use equipment that has a built-in fail-safe mechanism that prevents access to connections at high voltages.
- 2.2 Live tissue samples used in such investigations must be taken either from a continuously maintained tissue culture line already available to institutional researchers, or from animals already being used in an on-going institutional research project. Written evidence of the source of such material (invoice or letter from supplier) must be available at the project during the fair. These animal tissues may only be displayed at the fair if they are prepared and sealed (lamella, plastination).
- 2.3 All research institutions at which biotechnological investigations are supported will provide mandatory training for those involved. All students involved with such research are required to take the appropriate course(s) and provide documentary evidence at their project that they have taken these courses. If an examination is part of the course, a passing grade is required.