

## **Cell Culture & IVTECH Bioreactor**

The staff who worked on this project always followed all the good standard procedures:

- wash hands thoroughly before and after working with cell cultures;
- wear a lab coat, gloves and safety glasses to protect themselves from any hazardous materials and to prevent contamination of the cell cultures from microbes present on skin and clothes.

### **Work area**

- Static and dynamic cell cultures (IVTECH Bioreactor) were carried out in a biosafety cabinet, under a laminar flow, located in an *ad hoc* cell culture room.
- The inside of the biosafety cabinet was wiped with disinfectant (benzalkonium chloride solution) followed by 70% ethanol before and after use. Further, UV light was turned on to sterilize the biosafety cabinet when unused.
- Areas of work only contained the items required for the current procedures.

### **Handling & sterilizing techniques**

- 70% ethanol was sprayed on gloved hands before starting the work in the biosafety cabinet.
- All the equipment and reagents (cell culture media or other reagents) utilized into the biosafety cabinet were sprayed beforehand with 70% ethanol.
- Disposable plastic pipettes were used to manipulate solutions, Pasteur glass pipettes were autoclaved as well as each single component of the bioreactor (connector, holder, upper and lower cylinders, top and bottom cylinders, thin glasses reservoirs). Specifically, each component was wrapped in aluminum foil and, after autoclaving, all the packages were opened into the hood and the bioreactor circuit was assembled in the hood itself under laminar flow.
- The sterilization of the polyester membranes was achieved by keeping them in ethanol 70% for two hours followed by UV light exposure for 15 min.