

Biosafety and biosecurity Risk Assessment in Biotechnology Laboratory

Hanan, A. F.*, Aggour M. G* and Zaki, E. R.**

AHRI, Giza

Objectives:

The present study was conducted to apply the biosafety management programs, to demonstrate a culture of responsibility involves all individuals who work or enter in the lab as to safeguards protect the workers, public health and environment. To promote competency and adequate training of laboratory staff and biosafety professionals.

Material and methods:

Laboratory has its own set of equipment, including tools, techniques, pipettors, reagents, pipettor tips, racks, PPE and biological safety cabinet (BSC), control PCR amplicon contamination through access controls for each partition. The program document continued risk assessments, SOPs, applicable regulations, standards guidelines, work practices, procedure review document control and perform advance training of personnel.

In biotechnology Lab, we either store or carry out experiments involving DNA or RNA and microbial pathogens as virus, bacteria or parasite we receive specimen from animals contain infectious agents as blood or body fluids, blood-borne pathogens through risk of exposure during handling the primary sample

Results:

Biosafety has been established, documented, implemented and maintained a risk management system that oversees the operation of the Biotechnology lab

Recommendation:

Establish a system to apply safety and security measures for diagnosis and Research on hazardous biological is vital for ensuring public and environment health. Mitigation measures with risk assessment are essential to address the specific laboratory risks to protect the health of laboratory workers.