

## BIOSAFETY MANAGEMENT: EMPHASIS ON MEDICINE, PHARMACY, AND BIOTECHNOLOGY

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Biosafety issues are integral tasks in the context of ensuring the safe sustainable development of any country or supranational association, such as the European Union. Biohazard management has its own specifics, depending on both the system level and the industry context [1]. The scientific and organizational principles of developing (modifying) biosafety systems and biohazard management are being revised depending on new challenges and scientific progress. In the global context, the COVID-19 pandemic has become the latest most powerful challenge to the functioning of national and global biosafety systems [2]. Different countries and regions responded to emerging threats and challenges with varying effectiveness. It is obvious that such effectiveness was primarily correlated with the effectiveness of state, regional or sectoral management systems. At the same time, it is difficult to overestimate the influence of expert opinion when making management decisions, which is based on the analysis and systematization of scientific data: medical and biological, engineering and technical, socio-economic, etc. [1, 3, 4]. For Ukraine, the full-scale war starting in 2022 has become a highly serious challenge to the functioning of the biosafety and biodefense system. It is worth noting that Ukrainian scientists promptly responded to new challenges in the context of biosecurity.

Ukrainian scientific teams were successful in the development of methods for new biological hazards identifying, preventive and therapeutic preparations, individual and collective protection devices, algorithms for the epidemiological process predicting, etc. [5–8]. An important component of the biosecurity and biohazard management system is the educational component. Relevant training courses and educational programs are implemented in many Ukrainian universities. The KPI's significant contribution to the training of biosafety specialists has long been known.

In the current issue, we present to your attention works on biosecurity and biohazard management in medicine, pharmacy and biotechnology. Our efforts to consolidate scientific opinion on these important issues were supported by the European Union initiative EURIZON Fellowship Programme: "Remote Research Grants for Ukrainian Researchers". We would like to express our sincere gratitude to the teams of the Biomedical Engineering Faculty of the Igor Sikorsky Kyiv Polytechnic Institute and the Biomedicine and Bioengineering Association. This team of professionals and enthusiasts successfully implemented the educational project in 2024–2025: "Improving professional communication on biosecurity and biohazard management in medicine, pharmacy and biotechnology" [9].

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