

Field studies on the prevalence of epizootic disease pathogens



Taking soil samples for analysis in the Ukrainian partner lab



Presenting an award to a Ukrainian junior researcher of the biosecurity project during an international conference





Bundeswehr Institute of Microbiology Ernst-von-Bergmann-Kaserne Neuherbergstraße 11 | D-80937 München +49(0)89 992 692 3980

In cooperation with

Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH

Potsdamer Platz 10 | D-10785 Berlin +49(0)30 338 424 512

On behalf of

Auswärtiges Amt

[German Foreign Office] Werderscher Markt 1 | D-10117 Berlin

Partners in the Ukraine

Institute of Experimental and Clinical Veterinary Medicine in Kharkiv

Copyright | Bundeswehr Institute of Microbiology Photos | Archive of the biosecurity project







German-Ukrainian Biosecurity Initiative near the external EU Border





Context

Ukraine has been in a political and economic crisis since 2014. In addition, armed conflicts flare up repeatedly in Eastern Ukraine. In view of the above, improving the biosecurity and health situation, particularly in the east of the country, presents a continuous challenge. It is most likely that sources for the transmission of dangerous infectious diseases are not identified rapidly because basic tools to diagnose pathogens are often not available. This critical situation might also result in a bioterrorist threat in Ukraine.

To improve the biosecurity and biosafety situation, the Bundeswehr Institute of Microbiology (IMB) and the Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH [German association for international cooperation] is conducting a project in cooperation with the Institute of Experimental and Clinical Veterinary Medicine (IECVM) in Kharkiv.



Objective and Approach

The project aims to enhance the abilities of the Ukrainian partner institute for carrying out standardised tests to detect highly pathogenic agents. This should enable a more rapid response in cases of unusual outbreaks of diseases with biological hazards.

The ultimate goal is to ensure that the Ukrainian health sector is able to act independently and sustainably in detecting and combating infectious diseases in a timely and reliable manner.



The focus is on the following approaches:

- Developing laboratory methods and establishing international laboratory standards,
- Providing support in establishing national and international scientific networks,
- Initiating studies on naturally occurring pathogens in Ukraine.

Achievements

Since 2016, the biosecurity project in Ukraine has supported three junior researchers during their doctoral studies on the prevalence of dangerous pathogens in rural areas. Close collaboration with the local Ukrainian veterinary service, which has knowledge of pathogens prevalent in Eastern Ukraine, allows the collection of data that can be used in forensic analysis. Different field studies have been carried out that involved taking soil samples and collecting swine serum as well as ticks which are analysed by doctoral students using established diagnostic and detection methods for the prevalence of different pathogens.

To implement international standards in the Ukrainian partner laboratory, three laboratory employees were trained in laboratory quality management according to the requirements of the German industrial standard DIN EN ISO/IEC 17025.

