



## Awareness Raising & Education on Biosafety & Biosecurity in Ukraine: 2011-2016 Review

S.Komisarenko, Ukraine

- Ukraine signed the BTWC on April 1972 and ratified the Convention on February 1975
- Though USSR had huge Bioweapons Program, Ukraine did not participate in it and never had biological weapons on its territory
- Nevertheless, we had and have repositories of dangerous pathogens.
- Ukrainian institutions (mainly in NAS, NAMS, NAAS) conduct quite intensive research in Biology, Medicine and Veterinary Medicine for the benefit of the country, some of which may be considered as “Dual-use” research

## Why a Code of Conduct for Dual Use Research?

- Increases understanding of biosecurity Government cannot oversee all scientists and experiments across the nation
- Offers greatest opportunity for improving security of research at the level of individual scientists
  - Persistent reminder of moral and ethical responsibilities
  - Creates a “culture of responsibility and accountability”
- Sets professional standards that may have legal implications

June 2005

By Thomas Holohan  
United States Delegation  
BWC Experts Group Meeting

## The US National Science Advisory Board for Biosecurity (NSABB) Charge

Advise on:

- Program for biosecurity education and training for scientists and laboratory workers in life sciences
- A code of conduct for scientists and laboratory workers
- National guidelines on communication and dissemination of dual use research methodologies and results
- Strategies for coordinated international policies regarding dual use research

June 2005

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United States Delegation  
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### Scientists participating in biomedical and bioscience research should agree:

- not to engage knowingly in research aimed at producing biological agents for use in hostile conflicts
- to become informed and be aware of possible dual use aspects of their research
- to carry out risk assessments at each stage of the research process as a reflective action

### To develop and to introduce codes of ethics and conduct

### Universities should be encouraged to offer instruction about

- the BWC
- the dual use dilemma
- bioethics, including ethical models of risk assessment

By K.Nixdorff, 2005

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### The Ways to Biothreats Reduction – for Ukraine to follow

- Determine priorities for the National Biosafety System
- Organize National System of Biothreat Reduction (State Biosafety Program)
- Establish State National Authority responsible for Biosafety and Biosecurity
- Provide full scale implementation of obligations pertinent to the BWC
- Create virtual integrated network of standard labs for Biothreat detection
- Adopt National legislation to European in the field of Biosafety
- Safeguard collections of selected and dangerous pathogens, to augment lab Biosecurity
- Make impossible Bioterrorism and non controlled traffic of pathogens
- Provide National Health service with efficient immunobiologicals

### -Disseminate knowledge and raise awareness on all aspects of Biothreat reduction

### -Create and implement a system of codes (and/or rules) of conduct for various professionals to make impossible misuse of "Dual Use"

- Develop professional practices for Life scientists in the field of new biotechnologies, genetic engineering, etc



## Palladin Institutes of Biochemistry of the NAS: Biosafety&Biosecurity conferences and seminars

- 2007, June – International Biosafety seminar, Kyiv, Ukraine (supported by Exeter U, UK)
- 2009, October – VII International Parnas Conference, Session on Biotechnology and Biosafety, Yalta, Ukraine
- 2010, February – International Conference "Biosafety and Biosecurity: Implementing the Recommendations Relevant to the Biological Weapons Convention", Kyiv, Ukraine (supported by GPP, Canada)
- 2010, September – X Ukrainian Biochemical Congress, Session on Biotechnology, Biosafety and Biosecurity, Odessa, Ukraine
- 2012, April – International Conference "Biosafety and Biosecurity 2: Implementing the Recommendations Relevant to the Biological Weapons Convention", Kyiv, Ukraine (supported by CRDF, USA)
- 2012, November – Seminar "Biosafety and Biosecurity Education", Odesa, Ukraine (supported by CRDF, USA)
- 2013, May – Regional Workshop on National Implementation of the Biological Weapons Convention for Eastern Europe, Kyiv, Ukraine (supported by EU and UNOG with participation of Judit Körömi and Richard Lennane)
- 2014, April – Seminar for Master and PhD students "Introduction into Biosafety, Biosecurity and Dual-use Concerns in Biotechnology", Kyiv, Ukraine (supported by EU and UNICRI)
- 2015, January – Training for professionals "Laboratory Biorisk Management", Kyiv, Ukraine (supported by EU and UNICRI)

Workshop for  
Eastern Europe  
Kyiv, 2013

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Kyiv Interntl, Conf, 2012

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- Richard Lennane
- Judit Körömi
- Serhiy Komisarenko



## **“EDUCATION AND AWARENESS-RAISING IN UKRAINE” - Partner P 633 Project**

2014 - start of Partner P633 Project

- Palladin Institute of Biochemistry, NAS of Ukraine and Ukrainian Biosafety Association
- UK Ministry of Defence
- the Science and Technology Center in Ukraine

## **“EDUCATION AND AWARENESS-RAISING IN UKRAINE” - Partner P 633 Project**

### **Main deliverables:**

- Networking amongst professors of Biological, Medical and Veterinary Universities
- Project P 633 web-site developed
- Translated educational materials
- Regional and international meetings

## Networking International & regional meetings (2014-2016)

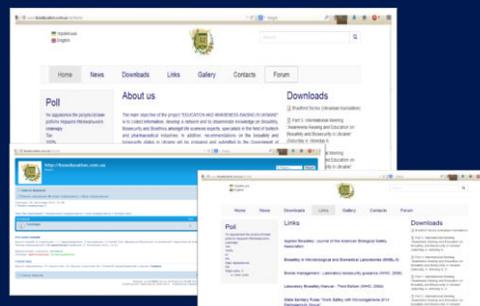
2 international meetings:  
120 participants from 7 countries

6 regional meetings:  
470 participants from 12 Ukr. regions



## Educational materials in Ukrainian and bilingual web site

- Bradford series – two issues
- Biorisk management. Laboratory biosecurity guidance
- Responsible life sciences research for global health security. A guidance document
- Education and Ethics in the Life Sciences
- Biosecurity — Freedom and Responsibility of Research
- «National Series» Bradford Disarmament Research Centre Division of Peace Studies, University of Bradford, UK
- Preventing Biological Threats: What You Can Do
- Biological Security Education Handbook: The Power of Team-Based Learning



<http://www.bsseducation.com.ua>



## Translation of Bradford University educational materials: interactive workshop for implementation (May, 2016)



## UKRAINIAN BIOSAFETY ASSOCIATION (UBA)

**Ukrainian Biosafety Association** was initiated in 2010 and officially established (registered as NGO) in 2013

### Founders:

- National Academy of Sciences of Ukraine
- National Academy of Medical Sciences of Ukraine
- National Academy of Agrarian Sciences of Ukraine

### Mission:

- Support and promotion of Biosafety, Biosecurity and Bioethics to lower intentional and nonintentional biological risks with a long-term goal to educate responsible life scientists with a strong conception of safe science and bioindustry in Ukraine
- To disseminate knowledge on the issues related to the Biological and Toxic Weapons Convention

### Membership:

7 regional branches and more than 100 individual members

## **Biosafety, Biosecurity and Bioethics Education in Ukraine: current and future**

- Dissemination of educational materials/knowledge amongst relevant stakeholders
- Development and adoption of course/s on Biosafety, Biosecurity and Bioethics within the curriculum for Life sciences universities
- Presentation of the developed courses for the ministries involved
- Oversight of the developed courses implementation

## **Other Biosafety needs&requests in Ukraine**

- Harmonization of existing Ukrainian legislation and guidelines on Biosafety and Biosecurity with international standards
- Highlighting of Biosafety & Biosecurity issues amongst national authorities and relevant players
- Continuous training of Biosafety and Biosecurity experts

Due to its expertise, responsibilities and bylaws National Academy of Sciences may be involved in these problems resolution



**Thank you for your attention  
and most sincere thanks to our sponsors and  
colleagues for cooperation**

By National Academy of Sciences of Ukraine (NAS)  
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