



Why should organizations participate in H2020?

Paata Imnadze, MD, PhD, Profesor

National Contact Point of the Joint Research Center, Georgia

Tbilisi, 31 May 2016





H2020 – an EU Instrument for *EU Development*

H2020 is an instrument for research and innovation

H2020 is an investment tool with €80 billion of funding

H2020 is an opportunity to take a great idea from lab in to Market

H2020 is a instrument for excellent science and industrial leadership

H2020 is a platform for growing jobs and make sustainable economy in the future

NCDC R. Lugar Center for Public Health Research

Molecular Epidemiology

Genomic Center

Bacteriology

Serology

Virology

Parasitology

Cell Cultures

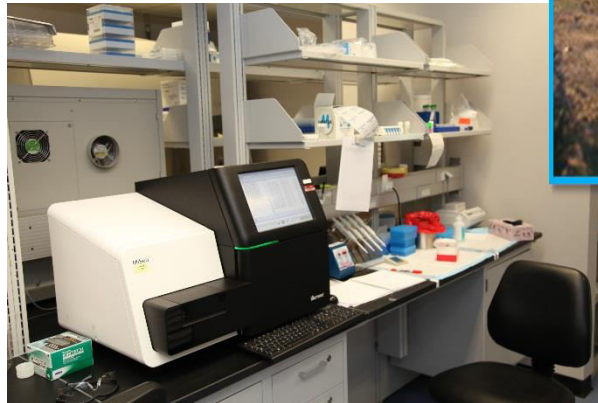
Repository of EDP

Entomology

Vivarium

WRAIR Lab

BSL3 designated area for LMA & MES



3 Labs accredited by WHO

- Polio
- Influenza
- Measles/Rubella

**5 Labs Connected to
WHO Lab Network**

- Rota Virusis
- Invasive Meningitis
- AMR
- Malaria
- Salmonellosis



Research Projects at NCDC/Lugar Center

More than 160 non-state funded programs, projects and grants for last five years

- 2011-2014 - 83 scientific and research projects
- 2015 - 85 research projects and programs, some

International Partners: DTRA and WRAIR, US CDC/GDD, WHO, EC and UNICRI, BTEP/ISTC and STCU, CRDF

Including Universities: Bundeswehr Institute of Microbiology (DE), Cardiff University (UK), University of Oslo (NO), Florida University, University of Arizona and L. Livermore National Laboratory (US), ect.

Local Partner: G.Eliava Institute of Bacteriophages, Ilia State University, Tbilisi State University, Laboratory of Ministry of Agriculture





Anthrax Environmental Decontamination Network (AEDNet)

Participatory Countries:

- **UK**
- **Italy**
- **Germany**
- **Poland**
- **Turkey**
- **Georgia**

Implementing Institutes:

- **Cardiff University – Lead**
- **Research Institute on Zoonosis**
- **University of Hohenheim**
- **Sanitary and Epidemiology Institute of Warsaw**
- **Kafkas University**
- **National Center for Disease Control and Public Health**

Scientific objectives

- The development and characterization of environmentally friendly anthrax spore bacteriophage based decontamination agents
- The development of spore germination formulations which enhance the activity and stability of *B.anthraxis* specific decontamination agents
- The characterization of anthrax spore decontamination test sites in Ukraine and Turkey and a determination of the genetic diversity of *B.anthraxis* isolates from these sites
- The performance of field trials and assess the sporicidal activity and environmental impact of the bacteriophage decontamination formulation developed during this study
- The harmonization and standardization of methods across the network to enable the results obtained from different laboratories to be comparable



NCDC's Contribution to AEDnet

Providing trainings on:

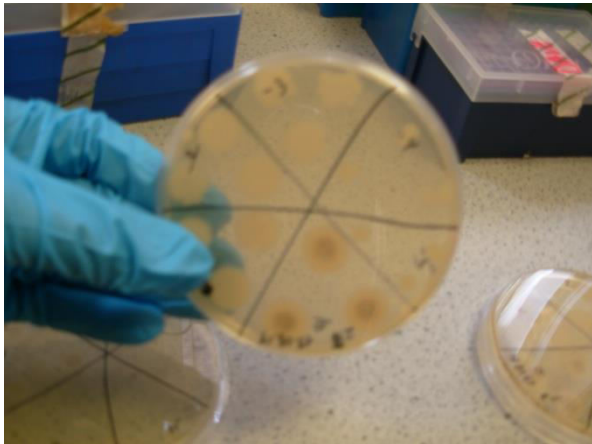
- **Basic Biosafety/Biosecurity**
- **BSL3 procedures**
- **Molecular Characterization of *B. anthracis***
- **Sequencing of *B. anthracis***
- **Soil Sampling from Anthrax foci**

NCDC's Secondments

- **Host Countries: Cardiff, UK; Turkey; Poland; Italy; Germany;**
- **Visitor Countries: Cardiff, UK; Turkey; Italy; Germany;**
- **Performed work:**
 - **2014 – 4 Secondments in Cardiff, UK**
 - 3 Secondments from Kars, Turkey**
 - **2015 – 2 Secondments in Kars, Turkey**
 - 3 Secondments in Poland**
 - 1 Secodnment in Cardiff, UK**
 - 1 Secodnment from Cardiff, UK**
- **Have been prepared one abstract and poster presentation**



Secondment in **Cardiff**, UK



Secondment in **Kars**, Turkey





Biology and Control of Transmissible infections in Europe

Participant Organizations:

46 International Partners from 22 Countries

Projects Goal:

- **Biological, ecological, epidemiological study on emerge and spread of transmissible diseases (VBD)**
- **Development of modern control measures and approaches of diseases based on obtained results**





Project Objectives



- **Identification and biological investigation of *Phlebotomine* types; Epidemiological study of phlebotomuse and leishmaniosis transmission**
- **Study of spread of mosquitoes population/types in new geographical zones**
- **Study of changes in mosquitoes and pathogenic types**
- **Development of data-bases and maps with risk-spots on mosquitoes and diseases for EU and surrounding regions**
- **Testing of new diagnostic methods on parasites and dogs**





Study Results



- **Create collection of mosquitoes to study population density and their biological features**
- **Part of the collection sent to EU partners for farther investigation on *Phlebotomine* sand flies**
- **Biological samples from dogs collected for testing by using of novel simple diagnostic method**

The Project

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Country profile: Georgia

In the third of our country profiles, EDENext caught up with Eka Giorgobiani, from Georgia's National Centre for Disease Control, to find out more about the vector-borne disease situation in her country and the role her institute will be playing in EDENext.



1. What vector-based disease challenges does Georgia face?

According to the historical data, Georgia has been endemic for several vector-borne diseases. Single cases of Lyme disease, Q fever, tick-borne encephalitis, Crimean-Congo haemorrhagic fever, haemorrhagic fever with renal syndrome and West Nile virus have been registered in different parts of the country. A considerable number of tularemia cases have been reported annually. Large foci of malaria are located in the eastern part of the country. Visceral leishmaniasis in Georgia has been sporadic and confined mainly to the eastern part of the country. Since 1990, the number of visceral leishmaniasis cases recorded annually has increased substantially and current active foci are located in Tbilisi, the capital of Georgia. There are two natural foci of plague in Georgia, although human cases have not been registered since 1937.

2. What is your institute doing to tackle this?

The National Centre for Disease Control (NCDC) is the primary public health centre in Georgia which performs surveillance,

The NCDC is involved in the EDENext activities proposed for the phlebotome (sand flies) group (PhED). The Georgian team will carry out field and laboratory work to investigate the vectors of visceral leishmaniasis in Georgia. We will identify species, determine *Phlebotomus* population density, seasonal density variations, breeding and feeding habits, period of infectivity and infection rates. These results will help to determine the epidemiological significance of each vector, which is essential in developing appropriate control measures for disease prevention.

Georgia facts

Capital: Tbilisi
Surface area: 69,700km²
Population: 4.2 million (UN, 2010)
Population density: 68.1/km²



<http://www.edenext.eu/the-project/country-profiles2/country-profile-georgia>

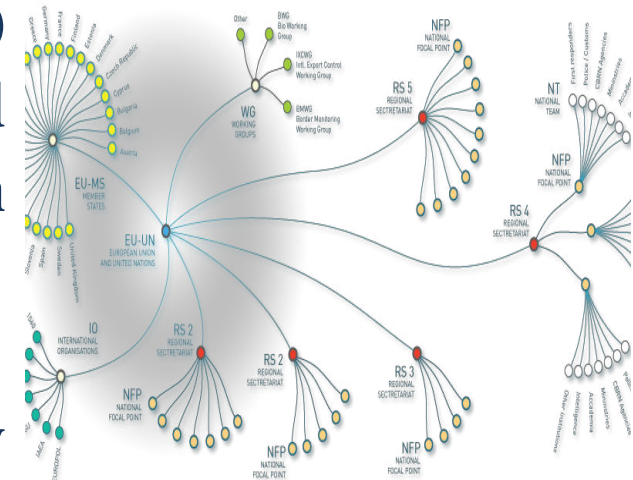


EU/UNICRI program Initiative

Strengthening Bio-safety And Bio-security Capabilities

In South Caucasus And In Central Asian Countries

- **Project B1 – Establishing of a Regional Training and Resource Centre (RTRC) in biosafety, biosecurity and Laboratory management in the South Caucasus**
- **Project C4 - Bio-safety and bio-security risk management for Georgia Region**

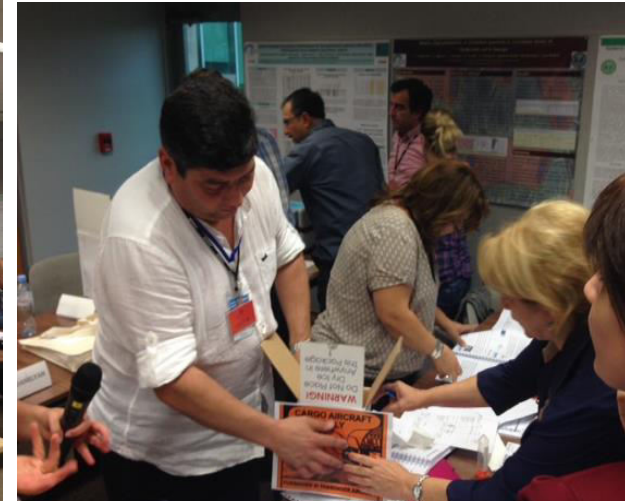
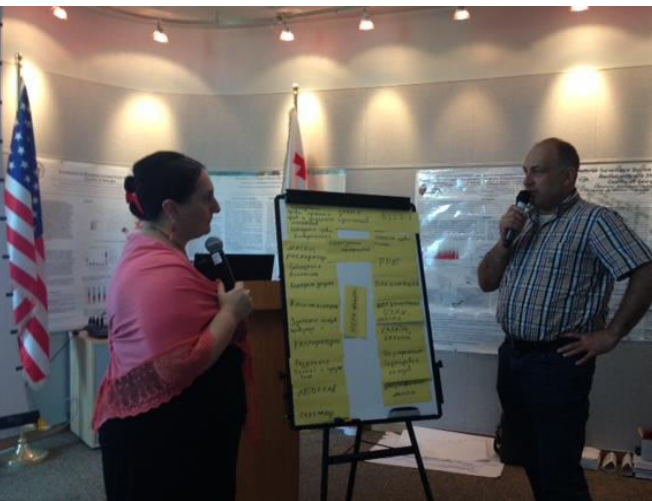
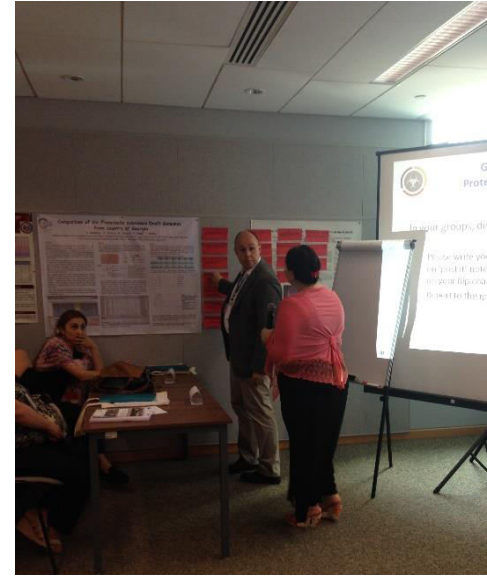


Projects Objectives

- **Conduct bio-risks assessment at national as well as at regional level (Armenia, Azerbaijan, Georgia and Turkey)**
- **Develop training courses based on needs assessment**
- **Raise training capacity in the Lugar Center (human resources and training materials) through sharing knowledge and skills with EU lead institutes**
- **Launch pilot trainings for invited from neighboring countries laboratory staff**
- **Establish a sustainable training and recourse center a regional level in Biosafety and Biosecurity**



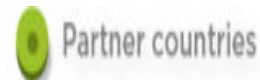
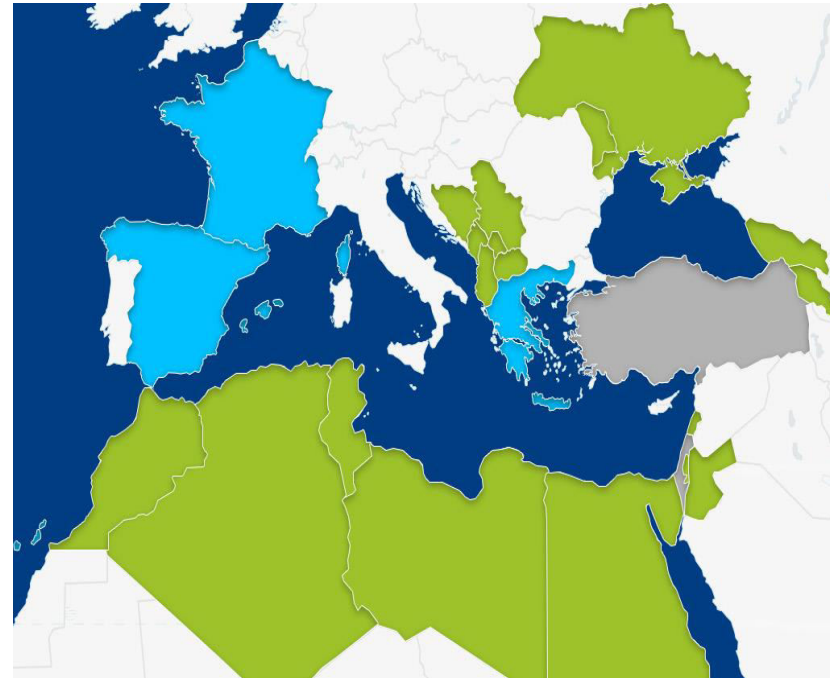
Training photos





Overall objective of MediPIET

- To enhance **health security** in the Mediterranean and black sea region by supporting **capacity building** for **prevention** and **control** of communicable diseases through the implementation of a long-term regional FETP
- FETP is a two-year competency-based fellowship program and provides training and practical experience in intervention epidemiology



Partner countries



EU countries



Observer countries

Black Sea Regional Meeting in Tbilisi, Georgia

25-26 May 2015

Participants:

- Stakeholders from the Black Sea countries
- Members of the Scientific Advisory Board (ECDC , JRC-European Commission , InVS, France , MediPIET team)
- Representatives from Mediterranean countries
- Representatives of the CBRN Regional Secretariat
- Observers - CBRN CoE Coordinator SE Europe, Southern Caucasus, Moldova & Ukraine





MediPIET Annual scientific conference

“Applying Public Health Science to the field” 18-19 November, 2015

MediPIET Scientific Board Members:



Paata Imnadze

Professor Paata Imnadze MD, PH Health, Georgia. He is member ve Medicine (1994–pres.); Mem CEF/UNDP/World Bank /WHO (2003–2006); Vice President, Epidemiology and Microbiology Group on the Revision of the IHI Group of Experts on Immunizat pres.); member of Editorial Board pment of intersectional Food S sociation of Central Asia and C health inequalities in Europe” W (2014–pres.).
Prof. Imnadze Over the last 20 y vestigations on various danger their risk factors and prevention



Nana Mebonia

Nana Mebonia, MD, PhD, Profes State Medical University (TSMU) sease Control and Public Health the TSMU. She is MediPIET alter Nana was engaged in internatio ja, Nigeria (2012). Her responsi polio eradication activities and p miology and using statistical too Over the last 15 years her scient and prevention.

- **Oral Presentation:**
 - ✓ Prevalence of undiagnosed Blood pressure and co-existing risk-factors among selected population, Tbilisi, Georgia, 2015
- **Poster presentations:**
 - ✓ Situation assessment of small scale water supply systems in the Dusheti and Marneuli districts of Georgia: a case study (2011-2013)
 - ✓ Shigella spp outbreak caused by contaminated centrally piped water in Georgia, November-December, 2014

MediLabSecure



The MediLabSecure Project is supported by the European Commission (DEVCO: IFS/21010/23/_194)



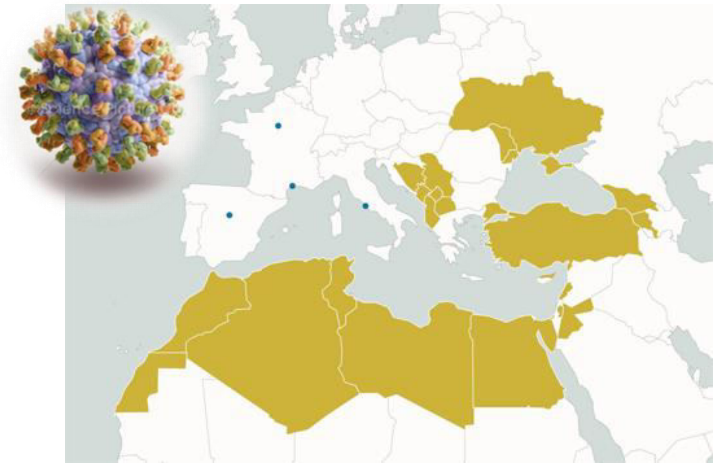
MediLabSecure

Preventing Vector Borne Diseases around the Mediterranean and Black Sea regions by creating new networks



Participant countries

Albania, Algeria, Armenia, Bosnia and Herzegovina, Egypt, Georgia, Jordan, Kosovo, Lebanon, Libya, Moldova, Montenegro, Morocco, Palestine, Serbia, The Former Yugoslav Republic of Macedonia, Tunisia, Turkey, Ukraine



Expected results

- Prevent the spread of viruses and vectors (mosquitoes) by setting up early detection methods
- Prevent outbreaks caused by zoonotic viruses with identified or potential risk in the region (West Nile, Chikungunya, Rift valley fever, Zika and etc.)
- Provide tools for multidisciplinary risk assessment of the different emerging viruses (transmission, spread, human impact)
- Implementation of public health measures for control where possible



Thank you for your attention!



**National Center For Disease Control and
Public Health of Georgia**

