



University of Montenegro
Biotechnical faculty
Podgorica

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Multi-country workshop on the implementation of mosquito vectors surveillance in the EU and enlargement countries

4-5 December 2014., Brussel

Mrs Sanja Medenica, Director of the Centre for Disease Control and Prevention of Institute for Public Health of Montenegro

Mr Nebojsa Sekulic, National expert responsible for surveillance and control of vector-borne diseases

Presentation of Project: "Surveillance of invasive and native mosquito vectors and pathogens they transmit in Montenegro" - LOVCEN 2014-2017

Partners:

- Biotechnical Faculty - University of Montenegro, Podgorica, Montenegro
- Institute for Hydro Meteorology and Seismology of Montenegro, Podgorica, Montenegro
- Institute for Public Health of Montenegro, Podgorica, Montenegro
- Natural History Museum of Montenegro, Podgorica, Montenegro
- Banat University of Agricultural Sciences and Veterinary Medicine "King Michael I of Romania", Temisoara, Romania
- Centro Agricoltura Ambiente "G.Nicoli", Bologna, Italy
- Faculty of Agriculture Novi Sad - University of Novi Sad, Novi Sad, Serbia
- Faculty of Medicine - University of Novi Sad, Novi Sad, Serbia
- Istituto Zooprofilattico Sperimentale, Reggio Emilia, Italy
- Scientific Veterinary Institute "Novi Sad", Novi Sad, Serbia
- Private company Hemko, Podgorica, Montenegro

Mosquito vectors and mosquito-borne diseases are raising threat to Europe, which impact strength is difficult to predict. The main infection sources are dependent on vector and environmental factors; hence the best choice for prevention and control of diseases is surveillance and control of mosquito vectors. For this reason, their surveillance and control require efficient and appropriately standardized methods, integrated knowledge and awareness among researchers, academic educators and policy-makers as well as well-trained young scientists.

The LOVCEN aims to promote all of these values and apply them in the field of vector mosquitoes and mosquito-borne pathogens. The main idea that led us to propose this project is to endorse exchange of knowledge and methodologies, improve higher education, facilitate training of next generation experts, improve the national policies, produce innovation and disseminate the related scientific information, under the umbrella of surveillance of mosquito vectors and diseases they transmit.

The LOVCEN project is combining diverse set of activities grouped in four work packages: (WP1) Collaborative research on native/invasive mosquitoes and pathogens they

transmit in Montenegro and development of non-chemical control measures; (WP2) Twinning through exchange of know-how and experience and dissemination activities; (WP3) Acquisition of research equipment and innovation capacity building and (WP4) Management that will be horizontally connected.

Planned research represent cutting edge of RTD in Europe: (a) application of SIT in invasive mosquito control; (b) implementation of the European Centre for Diseases Prevention and Control (ECDC) "Guidelines for the surveillance of invasive mosquitoes in Europe" (September 2012); (c) mobile phone application for surveillance of invasive and indigenous mosquito species; (d) evaluation of novel non-pesticide, biodegradable materials for control of mosquito larvae; (e) identification of mosquito species present in Montenegro and their distribution; (f) identification of mosquito vector species in Montenegro; (g) detection of pathogens carried by mosquito vector species; (h) modeling of climate changes influence on MV and MBD; (i) survey, dissemination and feedback on stakeholder's opinions about direction of the research in vector borne disease prevention.

Improved research capacity will enable the MCM to provide expert services to national government and SMEs dealing with both control of MV and environmental issues in: **(1)** surveillance, monitoring and risk assessment program to prevent introduction of or spreading of invasive vector species and vector born disease, **(2)** non-pesticide mosquito control methods, **(3)** climate simulation on regional level and estimation of impact human health. By organizing the training courses (open to interested SME participants) in invasive species monitoring and control, climate change impact assessment studies, mosquito surveillance by the mobile phone network, MCM will stimulate development and growth of the SMEs in Montenegro, development of public services and well being of all citizens in the country. In this way, it will contribute to overall economic and social development of Montenegro. Quality of offered products will stimulate investments in commercialization of MCM innovations both by enterprises and interested stakeholders.

The issue of involvement of young researchers was raised to the front line of the LOVCEN project concept, when Montenegrin consortium has been formed. Project Leader, Dr. Igor Pajović, himself belongs to the category of early stage researchers as well as 10 out of 13 researchers gathered to form MCM. Introduction of teaching on MV and MBD at already existing courses at BTF and Faculty of Medicine, University of Montenegro at the end of the 1st project year will raise awareness about the MV and MBD and allow recruiting new students to take their master and PhD thesis in these subjects.

We have clear vision about sustainability of activities started by MCM beyond the 36 months of the LOVCEN project. Ministry of Health and Ministry of Sustainable Development and Tourism of Montenegro already expressed their interest in the thematic area proposed by LOVCEN project. Staff from MCM institutions, will be actively involved training activities and knowledge transfer to SMEs and other businesses in order to provide sustainability for capacities developed during the LOVCEN project. Mosquito surveillance program started by the LOVCEN project will be continued on most sustainable way utilizing KOMARAC mobile phone application developed within WP1. This will also strengthen community participation/support and appreciation of problems posed by MV and MBD diseases.

With respect,

Director of Institute for
Public Health of Montenegro

Boban Mugosa



Dean of Biotechnical faculty
University of Montenegro

Miomir Jovanovic

