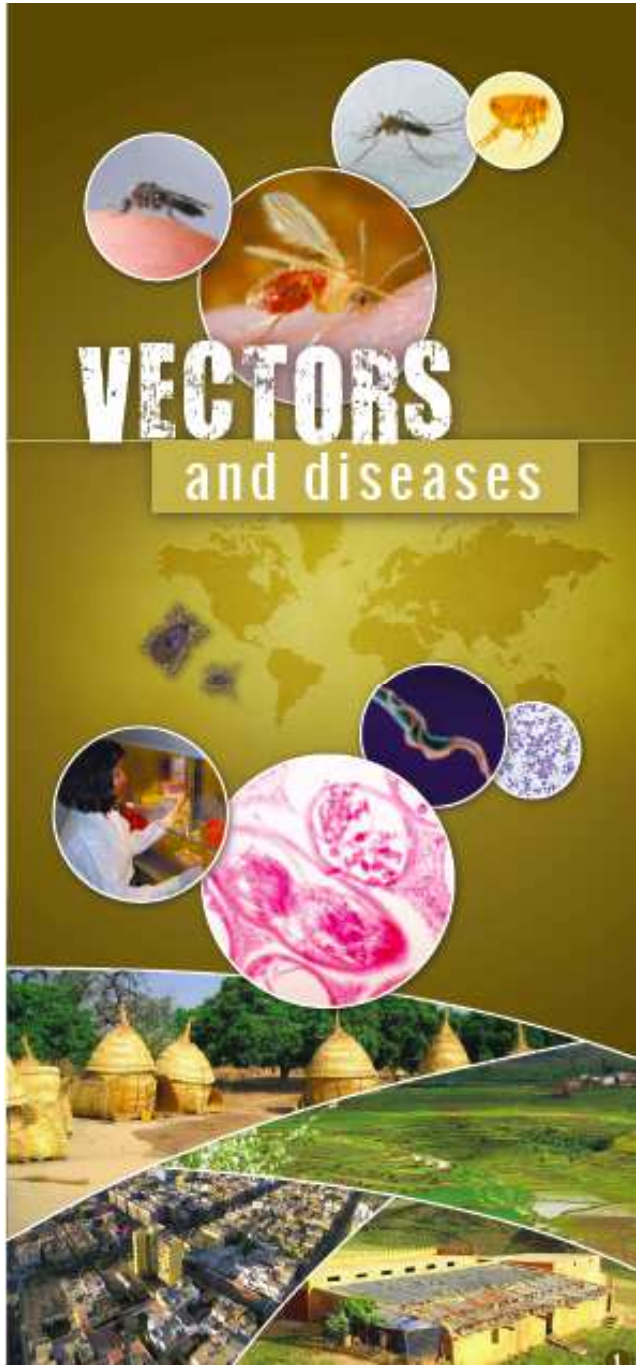
MediLabSecure

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

DG-SANCO/EAHC and DEVCO/EuropeAid



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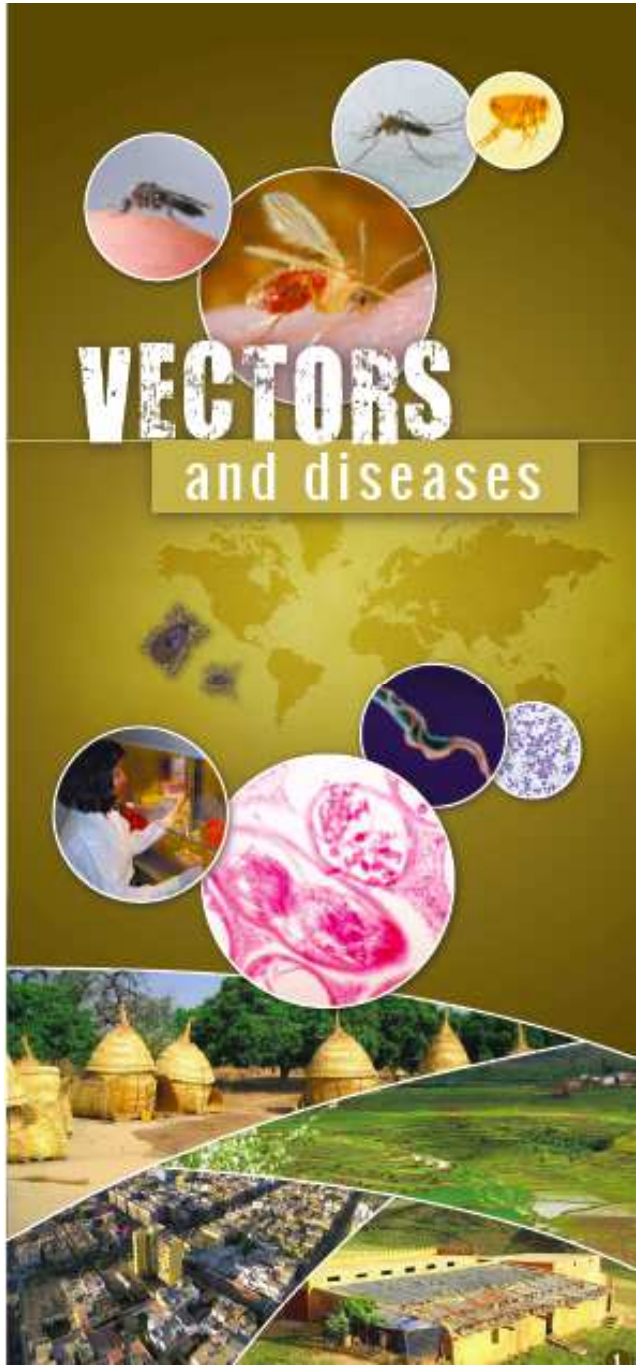
European project (2014-2017) aimed at preventing vector-borne diseases around the Mediterranean and Black Sea regions by creating new networks (human virology, animal virology, medical entomology)

EpiSouth (human virology, animal virology)



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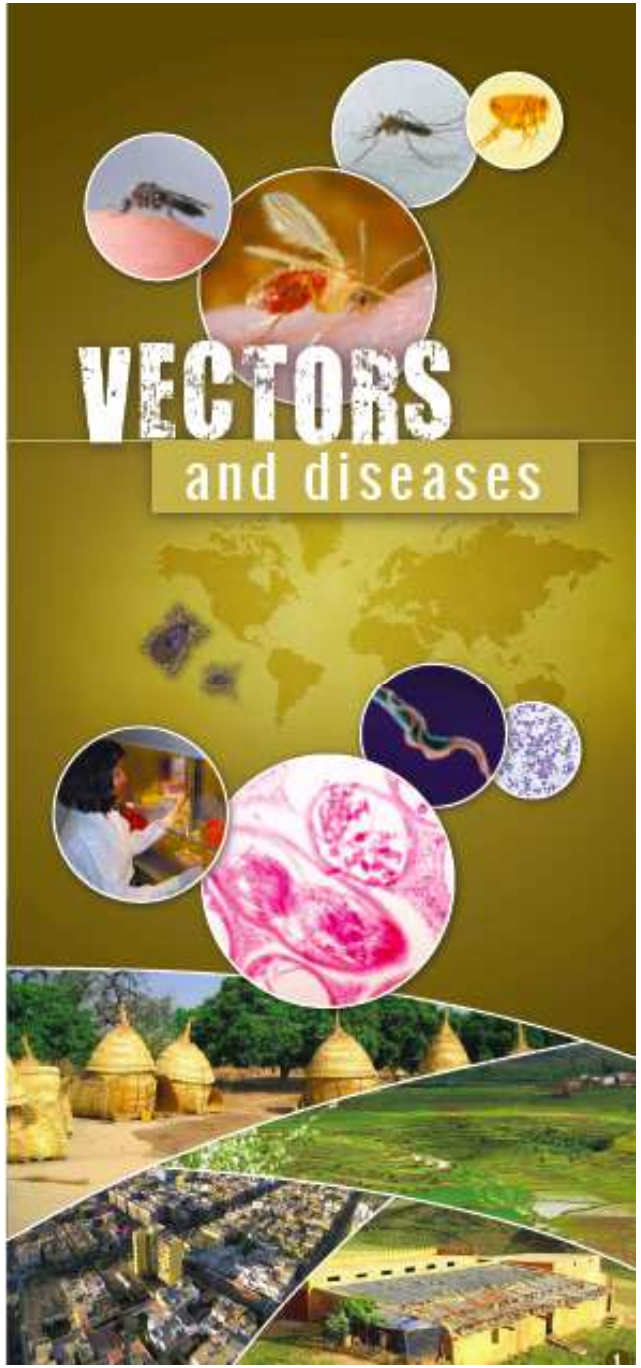
The medical entomology network (WP4) established in 2014

Selection:1 laboratory/country

Assessment of needs: tailored trainings sessions

Capacity building in mosquito vector of arboviruses (sampling, determination, surveillance)

Enhancing regional cooperation



MediLabSecure

8-12 June 2015 – University Novi Sad, Serbia
Albania - Bosnia and Herzegovina – Kosovo – Montenegro – Moldova – Serbia -The Former Yugoslav Republic of Macedonia

7-11 September 2015 – Hacettepe University, Ankara, Turkey
Armenia – Georgia - Jordan - Lebanon – Palestine - Turkey – Ukraine

Spring 2016 – North Africa
Algeria - Egypt - Libya - Morocco - Tunisia

The first training: Mosquito identification and virus detection
Novi Sad – June 8-12 2015.
Faculty of Agriculture, University of Novi Sad
Scientific Veterinary Institute “Novi Sad”

Participants:
Referent national laboratories for Medical Entomology
Albania - Bosnia and Herzegovina – Kosovo – Montenegro – Moldova – Serbia - The Former Yugoslav Republic of Macedonia

Programme

Training course
Faculty of Agriculture, University of Novi Sad
8-12 June, 2015

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MONDAY 8TH	TUESDAY 9TH	WEDNESDAY 10TH	THURSDAY 11TH	FRIDAY 12TH
8:30 **Welcome**	8:30 **Lecture** 6. Sampling mosquitoes: theoretical approach (30'). *V. Robert*	8:30 **Field activities** Collecting traps.	8:30 **Lecture** 10. Molecular identification: overview (60'). *V. Robert*	8:30 **Collaborative work** *Feedback and review between the two optional group (PCR and morpho ID)*
9:30 **Lecture** 1. Introduction to medical entomology (30'). *V. Robert* 2. Biology and ecology of the target mosquitoes: Aedes, Culex (30'). *F. Schaffner*	9:00 **Demonstration** Sampling mosquitoes: practical approach. *Presentation of the VectorNet protocols (flying adults, larvae, ovitraps, resting adults).*	11:00 **Lecture** 7. Methods and tools for conservation of mosquito (35'). *D. Petric* 8. Methods and tools for identification of mosquito (35'). *F. Schaffner* 9. Interests of collection reference (20'). *F. Schaffner*	9:30 Coffee Break	9:00 **Lecture** 11. Mosquitoes of Novi Sad (30'). *D. Petric*
10:30 Coffee Break	10:00 Coffee Break	12:30 Lunch	11:00 **Lab activities** *Option 1:* Molecular identification / PCR Demonstration. ▶ *At the Scientific Veterinary Institute «Novi Sad».* *Option 2:* Morphological identification. ▶ *At the University of Novi Sad.*	9:30 Coffee Break
11:00 **Exhibition** Opening of the exhibition *Vectors and diseases*	10:30 **Working group** Planning vector field sampling. *By small group*	14:00 **Lab activities** > Sample conservation of larvae and adults mosquito species. > Morphological identification of larvae and adults mosquito species (collected materials)	12:30 Lunch	10:00 **Lab activities** *Quality control* > Identification of adults mosquito > Identification of larvae mosquito *Two parallel groups (adult/larvae)*
12:30 Lunch	12:00 **Oral presentation** Group 4-5-6	17:30	14:00 **Lab activities** *Option 1:* Molecular identification / PCR Demonstration. *At the Vet.Research Institute.* *Option 2:* Morphological identification *At the University of Nov Sad.*	11:45 **Lecture** 12. Risk assessment and implication in Public Health (45'). *F. Schaffner*
14:00 **Working group** 5' to describe a species (into small group of 3 people)	12:30 Lunch		17:30	12:30 Lunch
15:30 Break	14:00 **Field activities** Mosquito larvae sampling in wetlands, breeding sites mapping, trapping methods for mosquitoes *Rotation system of subgroups*			14:00 **Working group** Achievement of a report (evaluation process of the surveillance and the collected data) *Split into group of 3. The report could be finalize after the training.*
16:00 **Lecture** 4. Current mosquito borne diseases in the Mediterranean and Black Sea Regions (30'). *F. Schaffner* 5. Surveillance and control of mosquito vectors: the basics (30'). *D. Petric*	17:30			16:00 Break
17:00 **Oral presentation** Group 1-2-3				16:30 **Conclusion**
17:30				17:30

Lectures

1. Introduction to medical entomology (30').
2. Biology and ecology of the target mosquitoes: Aedes, Culex (30').
3. Current mosquito borne diseases in the Mediterranean Basins (30').
4. Surveillance and control of mosquito vectors: the basics (30').
5. Sampling mosquitoes: theoretical approach (30').
6. Methods and tools for conservation of mosquito (35').
7. Methods and tools for identification of mosquito (35').
8. Interests of collection reference (20').
9. Molecular identification: overview (60').
10. Mosquitoes of Novi Sad (30').
11. Risk assessment and implication in Public Health (45').

TRAINERS

The course will be facilitated by:

Vincent ROBERT (IRD, France) – Senior researcher, medical entomologist.
Vincent is the key-expert of the medical entomology network (MediLabSecure). He has more than 30 years of experience in general and medical entomology mainly in tropical area (Africa and Madagascar). He conducted many researches on malaria and transmission of Anopheles. He also has a strong experience in teaching (Institut Pasteur) and publishing medical entomology books.

Dušan PETRIC (Faculty of Agriculture, Novi Sad University, Serbia) – Medical entomologist
Dušan is the Serbian lab member contact of the medical entomology network (MediLabSecure) and he kindly hosts this training.
He has more than 20 years of experience in mosquito systematics, ecology, host searching behavior, monitoring and surveillance. He is also teaching general and medical entomology to BSc and PhD students.

Francis SCHAFFNER (AVIA-GIS, Belgium) – Medical entomologist
He has more than 28 years of experience in surveillance, control, taxonomy, ecology of insect vectors and epidemiology of human and animal vector-borne diseases (e.g. West Nile and Chikungunya fevers, bluetongue). He is a leader in European mosquito taxonomy and has published an identification and training program: ‘The Mosquitoes of Europe’ that is available on CD-ROM. Throughout his career much time was devoted to training and capacity building.

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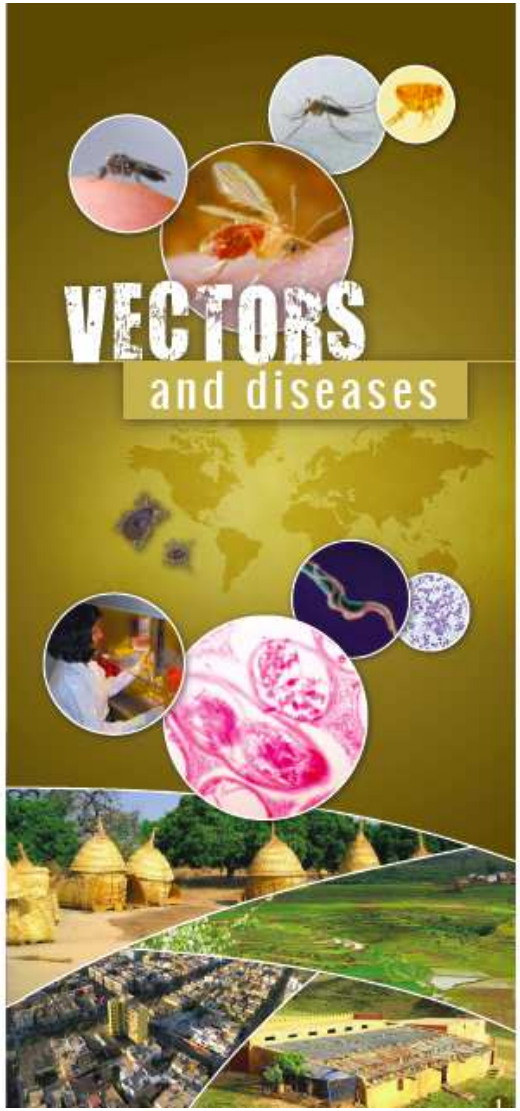

EXHIBITION

Vectors and diseases

What do plague, malaria and chikungunya have in common?

These diseases and many others—or more precisely the causal agents responsible—are spread by 'vectors'. A vector is a transmission agent for microscopic organisms that cause diseases; these are spread to humans and animals by biting.

The exhibition shows a broad range of vectors and also discusses the research conducted by scientists to gain better knowledge of them in order to organise control.

17 banners display

Panel 1 - Title
Panel 2 - What is a vector?
Panel 3 - The life cycle of insects
Panel 4 - *Aedes* mosquitoes
Panel 5 - *Anopheles* mosquitoes
Panel 6 - *Culex* mosquitoes
Panel 7 - Phlebotominae / Sand flies
Panel 8 - *Culicoides* / Midges
Panel 9 - Progress in research
Panel 10 - Black flies / *Simulium*
Panel 11 - Tsetse fly
Panel 12 - Bugs / Triatominae
Panel 13 - Lice
Panel 14 - Fleas
Panel 15 - Climate change and globalisation
Panel 16 - Ticks
Panel 17 - Credits

This exhibition has been devised and produced by IRD with the support of the European project MediLabSecure.