GENERAL CONTENT

MediLabSecure is a 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).

The medical entomology network (WP4) has been established in 2014. According to an assessment of needs, tailored training sessions are planned in 2015-2016, enabling laboratories to develop capacity building in mosquito vector of arboviruses (sampling, determination, surveillance) and to enhance regional cooperation:

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

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

> Spring 2016 – North Africa
   Concerned countries: Algeria - Egypt - Libya - Morocco - Tunisia

PROGRAM FOR THE FIRST TRAINING

OBJECTIVES OF THE TRAINING

The purpose of the training is the acquisition of essential knowledge and the development of skills in mosquito vector of arboviruses.

The aim of this course is:

- to develop capacity building in medical entomology and vector surveillance for laboratory staff of the MediLabSecure network;
- to provide the required skills (theoretical and practical) to conduct entomological surveys in the framework of surveillance, prevention and control of VBD in the Mediterranean and Black Sea regions;
- to strengthen parties’ ability to work together for their mutual benefit;
- to provide them skills and tools they need to define problems and issues and formulate solutions;
- to use concrete cases to build on lessons learned and apply concepts to practice.
Through an interactive and practical training approach, this course will focus on:

**The basics (1 day):** introduction to medical entomology, current mosquito borne diseases in the Mediterranean and Black Sea regions, surveillance strategies

**Sampling (1 ½ day):** characterization of breeding and resting sites, setting up traps

**Identification (2 days):** classification, morphology and development of arthropods, morphological identification of larvae and adult mosquito species, PCR detection methods

**Risk assessment (½ day):** methods for data management and analysis

**TARGET AUDIENCE**

The training is aimed at two people (technician, scientific) of the selected laboratory staff (MediLabSecure network members).

Background needed:
- a background in biology is required.
- to be proficient in English, the working language of the course.

**TRAINING SCHEDULE**

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<thead>
<tr>
<th>Monday 8</th>
<th>Tuesday 9</th>
<th>Wednesday 10</th>
<th>Thursday 11</th>
<th>Friday 12</th>
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</thead>
<tbody>
<tr>
<td>The basics</td>
<td>Sampling</td>
<td>Sampling / Identification</td>
<td>Identification</td>
<td>Identification / Risk assessment</td>
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<tr>
<td>8h30-9h00</td>
<td>Welcome</td>
<td>Lecture</td>
<td>Lecture</td>
<td>Collaborative working</td>
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<tr>
<td>9h00-9h30</td>
<td>Lecture</td>
<td>Demonstration</td>
<td>Field activities</td>
<td>Lecture</td>
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<td>9h30-10h00</td>
<td>Coffee break</td>
<td>Collecting traps</td>
<td>Lab activities</td>
<td>Lab activities</td>
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<tr>
<td>10h00-10h30</td>
<td>Coffee break</td>
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<td>Lab activities</td>
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<tr>
<td>10h30-11h00</td>
<td>Lecture</td>
<td>Working group</td>
<td>Lecture</td>
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<tr>
<td>11h00-11h30</td>
<td>Lab activities</td>
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<td>Lab activities</td>
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<tr>
<td>11h30-12h00</td>
<td>Oral comm. 2/2</td>
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<td>Lab activities</td>
<td>Lecture</td>
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<td>12h00-12h30</td>
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<td>13h30-14h00</td>
<td>Working group</td>
<td>Field activities</td>
<td>Lab activities</td>
<td>Lab activities</td>
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<tr>
<td>14h00-14h30</td>
<td>Lab activities</td>
<td>Trapping</td>
<td>Lab activities</td>
<td>Working group</td>
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<tr>
<td>14h30-15h00</td>
<td>Coffee break</td>
<td>Morpho Identification</td>
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<td>Evaluation process</td>
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<td>15h00-15h30</td>
<td>Coffee break</td>
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<td>PCR OR Morpho ID</td>
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<tr>
<td>15h30-16h00</td>
<td>Lecture</td>
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<td>Coffee break</td>
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<td>Coffee break</td>
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<tr>
<td>17h00-17h30</td>
<td>Oral comm. 1/2</td>
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<td>Conclusion</td>
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</tbody>
</table>
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.

PRACTICAL INFORMATION

ABOUT THE COURSE

**Duration of training:** 35 hours

**Number of trainees:** 18 people max.

**Location:**
- *Presentation and lab activities (morpho identification):* Faculty of Agriculture, University Novi Sad (Trg Dositeja Obradovica 8, 21000 Novi Sad, Serbia)
- *Lab activities (PCR):* Veterinary Research
- *Fieldwork:* station around Novi Sad

**Course format:**
This course will consist primarily of: short lectures, field activities, laboratory activities, collaborative work (all trainees or by small group), oral presentation.

**Resources:**
A manual training (provided in USB key) will be given to participants, including course presentation and useful resources (guidelines, dichotomic key, computer-aided identification system).
**Course certificate and assessment:**
Participants are expected to be present throughout the full duration of the course. Upon completion of the course, each participant will receive a certificate of participation provided that all sessions have been attended.
There is no formal examination but an assessment will be realized through a morphological ID individual evaluation and the achievement of a collective report.

**Equipment and materials expected:**
Trainees are invited to bring personal **laptop, field clothes** and **personal entomology equipment kit** (if you have).

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**CONTACT**

The MediLabSecure Team (WP4)

> Vincent ROBERT - Medical entomologist, PhD / vincent.robert@ird.fr

> Marie PICARD - Project manager WP4 / marie.picard@ird.fr

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