



**Research Workshop**  
**September 5<sup>th</sup> to 9<sup>th</sup> 2010**  
**Sofia, Bulgaria**  
**AgroBioInstitute, Agricultural Academy**

## **The Project:**

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The overall aim of the project SharCo is to help the EU face the accession of Member States known as endemic of sharka disease by providing the EU with tools such as marker-assisted selection, *Plum pox virus* (PPV) resistant plant materials, guidelines, warning systems, decision-support system.

On that purpose, the project will, **in the field of epidemiology**, identify driving factors of PPV spread and diversification and develop novel and high through-put detection systems warning sharka outbreaks.

**In the field of genetics**, it will provide molecular markers for the implementation of marker assisted selection of PPV resistant fruit varieties.

**In the field of biology**, it will assess innovative biotechnological approaches to broaden resistance to PPV in different fruit tree species.

Finally, in order to develop a PPV outbreak management, the project will elaborate i) guidelines for end-users and policy makers concerning cultivation and risk management, ii) an early warning system coupled with a decision support system.

All knowledge and tools developed by the project will be widely disseminated all over Europe with special attention made to PPV endemic countries.

SharCo comprises 9 Partners from EU countries (France, Bulgaria, Romania, Spain, Italy, Poland, Czech Republic, Germany and Slovakia) and 2 non EU countries - Serbia and Turkey. Project duration is 4 years; the project started in March 2008 and will end in March 2012.



Project part-financed by the European Community's Seven Framework Programme (FP7/2007-2013) under Grant Agreement n°204429.



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## Project structure

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The project is built on three pillars, each one divided into a number of work packages strongly interacting with each other within and across the pillars.

- ✚ The **Epidemiologic Pillar** encompasses three main aspects, understanding the mechanisms of the disease process on the one hand side, developing outbreak detecting and evaluating systems of the other hand side. The objective is to develop new methods and new tools for monitoring and fighting the PPV spread in nursery blocks and orchards. It will also provide data and tools for the evaluation of PPV diversity and factors driving PPV diversification. Methods, tools and knowledge generated in the Epidemiologic Pillar will be used in the Application Pillar for the elaboration of guidelines and early warning system.
  - WPE.1: Large scale analysis of PPV worldwide diversity
  - WPE.2: Improving knowledge of PPV epidemicity and spread dynamics from orchard to regional scales
  - WPE.3: Evaluation of strategies to reduce the incidence of PPV in nurseries blocks
- ✚ The primary goal of the **Genetic Pillar** is to provide stone fruit breeders with genetic knowledge and tools aimed at selecting the resistant varieties. Molecular markers will be developed in apricot, peach and plum, and used for the implementation of marker assisted breeding programmes for resistance to PPV Europe-wide. Unknown mechanisms and sources of resistance will be identified among natural resources or through biotechnological approaches. By the end of SharCo, complementary mechanisms of resistance will be combined to enhance PPV resistance in commercial stone fruit varieties. The PPV resistant plant material generated within the SharCo project will be implemented through the cultivation guidelines in the Application Pillar.
  - WPG.1: Identification of PPV resistance markers and development of marker assisted selection
  - WPG.2: Characterisation of new and complementary genetic resistance mechanisms





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- ✚ The **Application Pillar** is aimed at putting at the disposal of breeders, nursery gardeners and fruit producers with tools and plant material enabling them preventing sharka outbreak and minimising the impact in case of contamination. It will also support public policy-makers, regulatory bodies, extension services and other stakeholders through the development of an early warning system, the elaboration of risk management guidelines and recommendations for seedlings and grafted material cultivation. To facilitate knowledge and tool access to any stakeholder, a decision support system will be initiated and several training workshops will target dissemination and transfer to European and PPV endemic regions.
  - WPA.1: Sustainable sharka containment scheme
  - WPA.2: Dissemination and transfer
- ✚ A **Management Work package** addressing two principal issues:
  - Project monitoring
  - Administrative and financial issues

## Workshop Goals

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The goals of this workshop are to cross-pollinate existing research efforts in the field of biology, epidemiology and genetics investigations of PPV. The research workshop will address some issues as;

- What are the key areas in the current work package approaches that need further work?
- For each work package, what approaches appear most promising? How do the approaches in one work package affect the methodologies in other areas?

The research workshop is also intended to promote the dissemination of projects outcome in the scientific community.

Workshop Proceeding will be published in Acta Horticulture volume which will be distributed to all partners and some major agricultural libraries.



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### **Location and date**

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The research workshop coincides with the International Symposium on Plum pox virus which will be held in Dideman Princess Hotel, Sofia, 131 Maria Louisa Blvd. 6, 7 and 9 September 2010 (Afternoon Sessions)

### **Programme Committee**

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Veronique Decroocq - project coordinator (INRA, France)  
Lech Michalczuk – WPA2 leader (Instytut Sadownictwa i Kwiaciarnictwa Skierniewice, Poland)  
Ivanka Kamenova – local organizer (AgroBioInstitute, Sofia, Bulgaria)

### **Organizing Committee**

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Ivanka Kamenova (AgroBioInstitute, Sofia, Bulgaria)  
Rossitza Batchvarova (AgroBioInstitute, Sofia, Bulgaria)  
Marian Minchev (AgroBioInstitute, Sofia, Bulgaria)



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## **Presentations**

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### **Oral presentations**

Each oral presentation will be given 15 minutes, including time for questions. Computer projection will be available. Presentations must be prepared in Microsoft PowerPoint and saved to either a CD or flash drive.

### **Poster Presentations**

The size of posters must be within 90 cm width x 120 cm height. Posters may be displayed from 6 September till 9 September, 11:00 AM. Display boards and fixing materials will be provided.

### **Manuscripts**

All oral and poster presentations are expected to submit a manuscript, not more than 8 pages, including tables and figures. Authors of the manuscripts are requested to follow the instructions provided by ISHS homepage: <http://www.ishs.org/wri/pap1.htm>.

The authors are also requested to hand in their final paper (manuscript on CD together with a hard copy on A4 size paper) at the reception and information desk during the International Symposium of plum pox virus and the Research workshop or send it to the research workshop mailbox: **(It will be made)**

**The deadline for receipt of manuscripts is 5 October 2010.**



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