

International Conference  
**Genetic control of plant pathogenic viruses and  
their vectors: Towards new resistance strategies**

Puerto de Santa María (Cádiz, Spain), 23rd - 27th November 2008

ResistVir

## **Day 1 – Sunday 23<sup>rd</sup> November 2008**

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15:30-17:30     **Registration opening**

18:00 -19:30     Welcome reception

20:00             Social evening

## **Day 2 – Monday 24<sup>th</sup> November 2008**

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8:00     **Registration opening**

### **Symposium I: Important/emergent plant virus diseases**

*Chairperson: Denis Fargette*

9:00-9:40 Keynote lecture: *"Emergence of whitefly-transmitted viruses: recombination and synergism"*. Enrique Moriones

9:40-10:00 *"Two monopartite begomoviruses associated with eudicots endemic to Puerto Rico"*. Judith K. Brown

10:00-10:20 *"The synergistic interactions between SLCV and WmCSV – a new danger to cucurbit crops in the Middle East"*. Moshe Lapidot

10:20-10:40 *"Emergence of new strains of Watermelon mosaic virus in South-Eastern France: evidence for limited spread but rapid local population shift"*. Cécile Desbiez

10:40-11:00 Invited talk: *"The evolutionary Genetics of plant viral emergence"*. Santiago F. Elena

11:00-11:30     **Coffee break**

### **Symposium II: Factors required for virus multiplication and spread**

*Chairperson: Lesley Torrance*

11:30-12:10 Keynote lecture: *"Both plant and insect factors are specifically required for the success of CaMV spread through vector-transmission"*. Stephane Blanc

12:10-12:30 "*Tubulin and transmission of Cauliflower mosaic virus*". Martin Drucker

12:30-12:50 "*The major nucleolar protein, fibrillarin, is required for a plant virus multiplication and spread*". Michael Taliansky

12:50-13:10 "*Role of plasmodesmata located proteins in the intra- and inter-cellular trafficking of Grapevine fanleaf virus movement protein and implication in virus movement*". Khalid Amari

13:10-13:30 "*Phloem limitation of potato leafroll virus is mediated by the readthrough P5 and is selected for by the virus*". Peter Palukaitis

## **Symposium II (cont.): Factors required for virus multiplication and spread**

*Chairperson: Andy Maule*

15:30-16:10 Keynote lecture: "*Translation initiation factors: kingpin in plant resistance to RNA viruses*". Carole Caranta

16:10-16:30 "*Structural analysis of eIF4E, a susceptibility factor for Pea seed-borne mosaic potyvirus*". Jamie Ashby

16:30-16:50 "*Common and distinct features of eIFiso4G-mediated resistance to Rice yellow mottle virus compared to eIF4E-mediated resistance to potyviruses*". Eugénie Hébrard

16:50-17:10 "*Mechanism of plant eIF4E-mediated virus resistance: Cap-independent translation of a viral RNA controlled in cis by an (a)virulence determinant*". Veronica Truniger

17:10-17:30 "*Sobemoviruses possess a common genome organization and a highly modified VPg protein*". Erkki Truve

## **Poster Session I**

*Chairpersons: Olivier Le Gall & Victor Gaba*

18:00-19:30

Important/emergent plant virus diseases

Factors required for virus multiplication and spread

Plant responses to viruses and/or their vectors

20:00 **Social evening**

## Day 3 – Tuesday 25<sup>th</sup> November 2008

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8:00    **Registration opening**

### Symposium III: Plant responses to viruses and/or their vectors

Chairperson: Michael Wasseneger

9:00-9:40 Keynote lecture: “*The role of RNA silencing in antiviral defence*”. David Baulcombe

9:40-10:00 “*Is the silencing suppressor activity of P0 targetting ARGONAUTE enough to establish a successful infection of poleroviruses in Arabidopsis?*”. Véronique Ziegler-Graff

10:00-10:20 “*Cymbidium Ringspot Virus harnesses RNA silencing to control the accumulation of the virus parasite SatRNA*”. Vitantonio Pantaleo

10:20-10:40 “*Viroid-induced symptoms are dependent of rdr6 activity, a key component of the RNA silencing pathway*”. Gustavo Gómez

10:40-11:00 “*ASSYMETRIC LEAVES1 is a receptor of betaC1, the pathogenesis factor of TYLCCNV*”. Nam-Hai Chua

11:00-11:30    **Coffee break**

### Symposium III (cont.): Plant responses to viruses and/or their vectors

Chairperson: John Carr

11:30-12:10 Keynote lecture: “*Sap vs. spit: The role of aphid salivary proteins in manipulating host plant defences*”. Owain Edwards

12:10-12:30 “*Aphid and virus resistance triggered by the CC-NBS-LRR Vat melon gene*”. Catherine Dogimont

12:30-12:50 “*Plant-virus-insect interactions: a new role for the 2b protein of cucumber mosaic virus?*” Jack Westwood

12:50-13:10 “*Differential effects of 2b protein from two Cucumber mosaic virus strains and satRNA co-infection in the alteration of microRNA-regulated gene expression in tomato*”. Fabrizio Cillo

13:10-13:30 “Genetic and functional characterization of the RTM-mediated resistance”.  
Frédéric Revers

#### **Symposium IV: Innovative approaches, including transgenic resistance, to control plant viruses and vectors**

*Chairperson: Margit Laimer*

15:30-16:10 Keynote lecture: “Engineering virus resistance using artificial miRNAs”. Nam Hai Chua

16:10-16:30 “RNAi-mediated resistance to Potato spindle tuber viroid in transgenic tomato expressing the viroid hairpin DNA construct”. Gabi Krczal

16:30-16:50 “Molecular breeding for virus resistance in cereals”. Frank Ordon

16:50-17:10 “Subcellular visualisation of homologous and heterologous protein-protein interactions of the 2b protein of CMV, and their significance to its suppressor of gene silencing function”. Tomás Canto

17:10-17:30 “Analysis of the effects of high selection pressure on recombination between RNA3 of Cucumber mosaic virus and transgene mRNAs”. Marco Morroni

#### **Technology Transfer Round Table**

*Chairperson: Yolanda Hernando*

18:00-18:40 Keynote lecture: “A company perspective on knowledge and technology transfer from academia to industry”. Marcel Prins

18:40-19:30 Short presentations (10 min) from companies’ participants and general discussion.

20:00 **Social evening**

## Day 4 – Wednesday 26<sup>th</sup> November 2008

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8:00    **Registration opening**

### **Symposium IV (cont.): Innovative approaches, including transgenic resistance, to control plant viruses and vectors**

*Chairperson: Jari Valkonen*

9:00-9:40 Keynote lecture: *"Host targets of viral proteins and their manipulation in transgenic plants"*. Uwe Sonnewald

9:40-10:00 *"SharCo" FP7 European initiative: Testing new strategies of resistance to Plum pox virus*. Véronique Decroocq

10:00-10:20 *"Geminiviruses: when VIGS defeats PDR"*. Mario Tavazza

10:20-10:40 *"The high and wide-ranging action of PPV 5'UTR/P1 hairpin construct to confer resistance to Plum pox virus"*. Vincenza Ilardi

10:40-11:00 *"Evaluation of resistance conferred to Italian isolates of TYLCSV and TYLCV by Ty-1 and Ty-2 resistance genes and application of new CAPS markers for introgression in a traditional Italian tomato variety"*. Gian Paolo Accotto

11:00-11:30    **Coffee break**

### **Symposium III (cont.): Plant responses to viruses and/or their vectors**

*Chairperson: Alan Schulman*

11:30-12:10 Keynote lecture: *"Recognition of viruses and induction of resistance by plant NB-LRR proteins"*. Peter Moffett

12:10-12:30 *"Characterization of the interaction between Rx and Potexvirus coat protein: what can we learn from the elicitor side?"* Bénédicte Sturbois

12:30-12:50 *"Plant virus infection induced persistent host gene down regulation in systemically infected leaves"*. Zoltan Havelda

12:50-13:10 *"RNase III encoded by a plant RNA virus suppresses antiviral defence in sweetpotato plants"*. Jari P.T. Valkonen

13:10-13:30 "*Functional domains in Helper-Component of ZYMV involved in suppressor activity and symptom expression*". Amit Gal-On

### **Symposium V: Resistance Durability**

*Chairperson: Hervé Lecoq*

15:30-16:10 Keynote lecture: "*Factors involved in the durability of resistance: can it be predicted?*" Fernando García-Arenal

16:10-16:30 "*Constraints on evolution of virus avirulence factors predict the durability of corresponding plant resistances*". Benoît Moury

16:30-16:50 "*African rice cultivated species, Oryza glaberrima, opens new perspectives for analysis and breeding of resistance against Rice yellow mottle virus*". Laurence Albar

16:50-17:10 "*Base-by-base analysis of siRNA production by a plant inverted-repeat transgene giving viral resistance*". Victor Gaba

17:10-17:30 "*Broad-spectrum resistance to Turnip mosaic virus in Brassica rapa (Chinese cabbage)*". John A. Walsh

### **Poster Session II**

*Chairpersons: Mark Tepfer & Emanuela Noris*

18:00-19:00

Innovative approaches, including transgenic resistance, to control plant viruses and vectors

Resistance Durability

### **Presentation of ResistVir document**

19:00-19:40 "*Suggested guidelines and recommendations for future research policy*". Andy Maule

20:00 **Banquet diner**

**Tentative Programme: International Conference "Genetic control of plant pathogenic viruses and their vectors: towards new resistance strategies"**

Time	Sunday Nov. 23	Monday Nov. 24	Tuesday Nov. 25	Wednesday Nov. 26	Thursday Nov. 27
8:00		Registration opening	Registration opening,	Registration opening	
9:00 - 11:00		Symposium I: <b>Important/emergent plant virus diseases</b>	Symposium III: <b>Plant responses to viruses and/or their vectors</b>	Symposium IV (cont.): <b>Innovative approaches, including transgenic resistance, to control plant viruses and vectors</b>	<i>Excursion</i>
11:00 – 11:30		Coffee break	Coffee break	Coffee break	
11:30 – 13:30		Symposium II: <b>Factors required for virus multiplication and spread</b>	Symposium III (cont): <b>Plant responses to viruses and/or their vectors</b>	Symposium III (cont): <b>Plant responses to viruses and/or their vectors</b>	
13:30 – 15:30		Lunch	Lunch	Lunch	Lunch
15:30 – 17:30	Registration opening	Symposium II (cont.): <b>Factors required for virus multiplication and spread</b>	Symposium IV: <b>Innovative approaches, including transgenic resistance, to control plant viruses and vectors</b>	Symposium V: <b>Resistance Durability</b>	
17:30 – 18:00		Coffee break	Coffee break	Coffee break	
18:00 – 19:30	Presentation of the ResistVir project Welcome Reception	Poster Session I	Technology Transfer Round Table	Poster Session II	
20:00	<b>Social Evening</b>	<b>Social Evening</b>	<b>Social Evening</b>	<b>Banquet dinner</b>	