



ALMA MATER STUDIORUM  
UNIVERSITÀ DI BOLOGNA

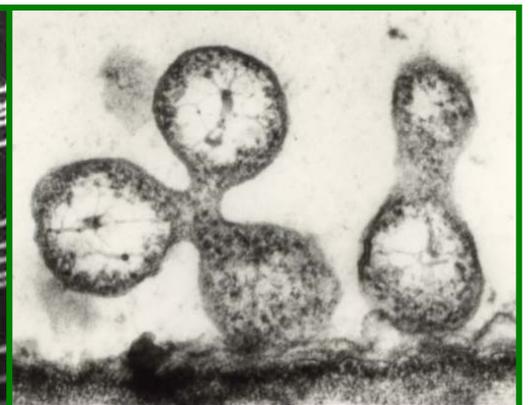
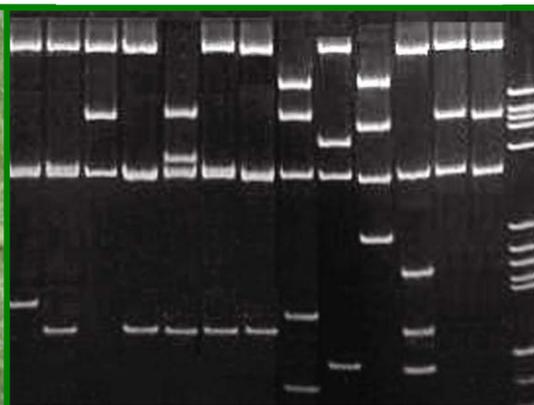


FACOLTÀ DI AGRARIA  
ALMA MATER STUDIORUM - UNIVERSITÀ DI BOLOGNA

# First International Phytoplasma Working Group Meeting



**November 12-15, 2007**  
**Bologna – Italy**



Faculty of Agriculture, Viale Fanin 46  
Aula Magna, Ground Floor, North Wing



**First  
International  
Phytoplasmologist  
Working Group  
Meeting  
November 12-15, 2007  
Bologna – Italy**

*Paratos tantummodo  
in rerum natura investiganda  
fortuna iuvit*

# Monday November 12

## From 8:00 Registration – Posters set up

- 9:00 Welcome addresses
- 10:00 Introduction      **Molecular biology and genomics of *Mollicutes***  
*Shmuel Razin* – The Hebrew University–Hadassah Medical School, Jerusalem, Israel
- 10:30 *Coffee break*
- 11:00 Host–parasite interaction of phytoplasmas from a molecular biological perspective  
*Shigetou Namba* – The University of Tokyo, Tokyo, Japan

## Phytoplasma genomics

*Saskia Hogenhout & Matt Dickinson*

- 11:45 An overview of the genome sequence of '*Candidatus* Phytoplasma australiense' – Australian strain  
*Lucy Tran-Nguyen*, M. Kube, B. Schneider, R. Reinhardt, K. Gibb
- 12:00 First look into the genome sequence of '*Candidatus* Phytoplasma mali' in comparison to '*Candidatus* Phytoplasma asteris' strains OY-M and AY-WB  
*Michael Kube*, B. Schneider, R. Reinhardt, E. Seemüller
- 12:15 Purification of phytoplasma DNA for sequencing the "flavescence dorée" and stolbur phytoplasma genomes  
*Patricia Carle*, S. Malembic-Maher, X. Foissac
- 12:30 Progress towards a chromosome map of the "flavescence dorée" phytoplasma  
*Sylvie Malembic-Maher*, F. Constable, A. Cimerman, G. Arnaud, P. Carle, X. Foissac, E. Boudon-Padieu
- 12:45 Dynamic structures in phytoplasma genomes: sequence-variable mosaics (SVMs) of clustered genes  
*Robert E. Davis*, R. Jomantiene, Y. Zhao

## 13:00 Lunch

## Phytoplasma diseases worldwide I

*Jana Franova & Phil Jones*

- 14:30 Detection and identification of phytoplasmas in *Ribes rubrum*  
*Milan Navrátil*, J. Přebilová, P. Válová, R. Fialová, D. Šafářová, J. Špak, D. Kubelková, K. Petrzik, R. Karešová, V. Špaková
- 14:45 Detection of '*Candidatus* Phytoplasma pyri' in Turkey  
*Mona Gazel*, Ç. Ulubaş Serçe, K. Çağlayan, H. Öztürk
- 15:00 Molecular identification of 16Srl-A, 16Srl-B, 16Srl-C, and 16Srl-L subgroups of phytoplasmas in gramineous plants in Lithuania  
*Laima Urbanavičienė*, R. Jomantiene, D. Valiūnas, R.E. Davis
- 15:15 List of phytoplasma hosts in Brazil  
*Helena G. Montano*, P. S. T. Brioso, J. P. Pimentel
- 15:30 Phytoplasma associated diseases in tomato and pepper in the state of BCS, Mexico: a brief overview  
V. Lebsky, *Arevik Poghosyan*
- 15:45 Identification of phytoplasma associated with witches' broom and virescence diseases of sesame in Oman  
*Akthar Jamal Khan*, K. Bottner, N. Al-Saadi, A. M. Al-Subhi, I.-M. Lee

## 16:00 Coffee break

- 16:15 **Phytoplasma detected in reverted black currants in Finland**  
*Anne Lemmetty, J. Pribylova, J. Spak*
- Phytoplasma strains detected in ornamental plants in Lithuania**  
*Marija Samuitienė, R. Jomantienė, D. Valiūnas, M. Navalinskienė, R.E. Davis* *Deividas Valiūnas*
- Phytoplasmas detected in cultivated fruit plants in Lithuania**  
*Deividas Valiūnas, R. Jomantienė, R.E. Davis*
- 
- 16:30 **Detection and molecular characterization of phytoplasmas infecting sesame and solanaceous crops in Turkey** – G. Sertkaya, *Marta Martini, R. Musetti, R. Osler*
- Diversity of the known phytoplasmas in Israel** – *Phyllis G. Weintraub, M. Zeidan, S. Spiegel, A. Gera* *Marta Martini*
- Molecular evidence for the presence of 'Candidatus Phytoplasma cynodontis', the Bermuda grass white leaf agent, in India** – G.P. Rao, S.K. Raj, S.K. Snehi, S. Mall, M. Singh, *Carminé Marccone*
- 
- 16:45 **Phytoplasma in "fava d'anta" tree (*Dimorphandra gardneriana*) in Brazil**  
*Helena G. Montano, G.S. Silva, R.C. Rocha, N.Z.A. Jimenez, R.C. Pereira, P.S.T. Brioso*
- Is a phytoplasma responsible for fig mosaic disease?** – *Kadriye Çağlayan, M. Gazel, Ç. Ulubas Serçe, S. Soylu, S. Yalçın* *Arty Gungoosingh-Bunwaree*
- Presence of phytoplasma infections in tomato plants in Mauritius**  
*Arty Gungoosingh-Bunwaree, A. Bertaccini, S.P. Benimadhu*
- 
- 17:00 **Molecular identification of "bois noir" phytoplasmas in grapevine in Bulgaria** – *Dimitrijka Sakaljeva, S. Paltrinieri, A. Calari, A. Bertaccini*
- Geographical distribution of "bois noir" phytoplasmas infecting grapevines in the Republic of Macedonia**  
*Saša Mitrev, E. Nakova, F. Pejčinovski, E. Angelini* *Evangelos Vellios*
- Detection and characterization of phytoplasmas infecting tomato plants in Greece** – *Evangelos Vellios, F. Lioliopoulou*
- 
- 17:15 **Molecular detection and characterization of phytoplasmas associated with lethal yellowing disease of coconut palms in Jamaica**  
*Wayne Myrie, N. Harrison, M. Dollet, B. Been*
- Are phytoplasmas the etiological agent of yellow leaf disease of *Areca catechu* in India?** – C.R. Ajadkar Purushothama, J. Gottravalli Ramanayaka, T. Sano, P. Casati, *Pier Attilio Bianco* *Wayne Myrie*
- Detection of different types of phytoplasmas in stone fruit orchards in northern Italy** – F. Landi, A. Prandini, S. Paltrinieri, *Nicola Mori, A. Bertaccini*
- Phytoplasma diseases in New Zealand** – *Lia W. Liefing, R. E. Beever, M. T. Andersen, G.R.G. Clover*

## Tuesday November 13

9:00 Insect vector of phytoplasmas and their control – an update  
*Phyllis Weintraub* – Volcani Agricultural Research Organization, Gilat Research Center, Israel

### Insect vectors of phytoplasmas I

*Phyllis Weintraub & Michael Maixner*

- 9:45 A handbook of leafhopper and planthopper vectors of plant disease  
*Michael Wilson*
- 10:00 An introduction to Auchenorrhyncha phytoplasma vectors  
*Michael Wilson, P.G. Weintraub*
- 10:15 Search for the vector of Cape Saint Paul wilt (coconut lethal yellowing) in Ghana  
R. Philippe, J.P. Nkansah, S. Fabre, R. Quaicoe, F. Pilet, *Michel Dollet*
- 10:30 Phytoplasma diseases and insect vectors in potatoes of the Pacific northwest of the United States  
*Joseph E. Munyaneza, J.M. Crosslin, I.-M. Lee*

10:45 *Coffee break*

### Insect vectors of phytoplasmas II

*Barbara Jarausch & Alberto Alma*

- 11:00 '*Candidatus* Phytoplasma prunorum': the phytoplasma status of *Cacopsylla pruni* from apricot orchards and from overwintering habitats in Moravia (Czech Republic)  
*Renata Fialová, M. Navrátil, P. Lauterer, V. Navrkalová*
- 11:15 Are there several biotypes of *Cacopsylla pruni*?  
*Nicolas Sauvion, O. Lachenaud, G. Genson, J.-Y. Rasplus, G. Labonne*
- 11:30 '*Candidatus* Phytoplasma mali': the current situation of insect vectors in northwestern Italy  
*Rosemarie Tedeschi, A. Alma*
- 11:45 *Cacopsylla picta* as most important vector for '*Candidatus* Phytoplasma mali' in Germany and neighbouring regions  
*Barbara Jarausch, A. Fuchs, N. Schwind, G. Krczal, W. Jarausch*
- 12:00 Molecular tests to determine pear decline phytoplasma presence in psyllid vectors from pear tree orchard in the Czech Republic – preliminary report  
*Jana Kučerová, L. Talácko, P. Lauterer, M. Navrátil, R. Fialová*
- Survey of *Cacopsylla pruni* in different fruit tree producing areas of Spain  
*J. Sabaté, Amparo Laviña, A. Batlle*  
*Federico Pedrazzoli*
- Acquisition capacities of the overwintering adults of the psyllid vectors of '*Candidatus* Phytoplasma mali' – *Federico Pedrazzoli, V. Gualandri, F. Forno, L. Mattedi, V. Malagnini, A. Salvadori, G. Stoppa, C. Ioriatti*
- 12:15 Occurrence and distribution of *Scaphoideus titanus* in multiple outbreaks of "flavescence dorée" in Serbia – *Slobodan Krnjajić, M. Mitrović, T. Cvrković, J. Jović, A. Petrović, V. Forte, E. Angelini, I. Toševski*  
*Scaphoideus titanus* identified in Hungary – *Z. Dér, S. Koczor, B. Zsolnai, I. Ember, Mária Kölber, A. Bertaccini, A. Alma*  
*Mária Kölber*

12:30 *Lunch*

## Interactions among phytoplasmas and hosts I

Shigetou Namba & Lia Liefing

- 
- 14:00 Behaviour and interaction of two '*Candidatus* Phytoplasma mali' strains in artificial infections  
*Paolo Ermacora*, M. Martini, L. Carraro, F. Ferrini, N. Loi
- 
- 14:15 Effect of different strains of '*Candidatus* Phytoplasma mali' in susceptible and resistant *Malus* genotypes inoculated by *in vitro* grafting  
*Claudia Bisognin*, A.M. Ciccotti, A. Salvadori, M. Moser, M.S. Grando, W. Jarausch
- 
- 14:30 Gene expression study in different '*Candidatus* Phytoplasma mali' - infected micropropagated *Malus* genotypes  
M. Moser, C. Sprenger, C. Bisognin, R. Velasco, *Wolfgang Jarausch*
- 
- 14:45 Chemo-ecologically mediated interactions among '*Candidatus* Phytoplasma mali', its vector *Cacopsylla picta*, and their host plant *Malus domestica*  
*Christoph J. Mayer*, A. Vilcinskas, J. Gross
- 
- 15:00 Production of polyclonal and monoclonal antibodies specific against membrane proteins of '*Candidatus* Phytoplasma asteris', chrysanthemum yellows isolate  
*Luciana Galetto*, D. Bosco, J. Fletcher, C. Marzachi
- 
- 15:15 Effect of pear decline phytoplasma on gene expression in *Catharanthus roseus*  
V. Carginale, V. De Luca, C. Capasso, M.R. Baldi, G. Maria, M. Pastore, A. Bertaccini, L. Carraro, *Antonio Capasso*
- 
- 15:30 Phytoplasma induced changes in gene expression in poinsettia  
*Mogens Nicolaisen*, N. Meyn Christensen
- 
- 15:45 A secreted effector protein of AY-WB phytoplasma accumulates in nuclei and alters gene expression of host plant cells, and is detected in various tissues of the leafhopper *Macrostelus quadrilineatus*  
X. Bai, A. El-Desouky, *Saskia A. Hogenhout*
- 

16:00 *Coffee break*

## Interactions among phytoplasmas and hosts II

Alain Blanchard & Yaima Arocha

- 
- 16:15 Gene expression and enzymatic activity of invertases and sucrose synthase in *Spiroplasma citri* or stolbur phytoplasma infected plants  
J. Machenaud, R. Henri, M. Dieuaide-Noubhani, P. Pracros, J. Renaudin, *Sandrine Eveillard*
- 
- 16:30 Stolbur phytoplasma-infected tomato showed alteration of S1DEF methylation status and deregulation of methyltransferase genes expression  
P. Pracros, M. Hernould, E. Teyssier, *Sandrine Eveillard*, J. Renaudin
- 
- 16:45 Double infection of '*Candidatus* phytoplasma asteris' and "flavescence dorée" phytoplasma in the vector *Euscelidius variegatus*  
*Romina D'Amelio*, C. Marzachi, D. Bosco

17:00 Aster yellows phytoplasma witches' broom (AY-WB; '*Candidatus* Phytoplasma asteris') increases survival rates of *Macrosteles quadrilineatus* and *Dalbulus maidis* on various plant species - Heather N Kingdom, S.A. Hogenhout

Pattern of chrysanthemum yellows phytoplasma multiplication in three leafhopper vector species (Cicadellidae Deltocephalinae) - Domenico Bosco, L. Galetto, P. Leoncini, P. Saracco, B. Raccan, C. Marzachi

Elizabeth  
de  
Oliveira

Maize bushy stunt phytoplasma transmission by *Dalbulus maidis* is affected by spiropasma acquisition and environmental conditions

Elizabeth de Oliveira, J.C. Santos, P.C. Magalhães, I. Cruz

17:15 Protein extraction for *Cocos nucifera* with and without lethal yellowing phytoplasma: gel-based proteomic - Celso Reyes-Martínez, D. Morales-Angeles, M. Narvaez-Cab, J.A. Osuna-Castro, D. Zizumbo-Villarreal, C.M. Oropeza-Salín, E. Peña-Beltrán

Productive parameters in Chardonnay and Vermentino grapevines infected with "bois noir" and recovered in Sardinia - Raimondo Garau, A. Sechi, V.A. Prota, G. Moro

Paolo  
Ermacora

Recovery phenomena in grapevines affected by grapevine yellows in Friuli Venezia Giulia  
C. Bellomo, L. Carraro, P. Ermacora, Francesco Pavan, R. Osler, C. Frausin, G. Governatori

## 20:00 Social Dinner

## Wednesday November 14

9:00 Prospects of DNA-based systems for differentiation and classification of phytoplasmas

Ing-Ming Lee - Molecular Plant Pathology Laboratory, Beltsville, MD, USA

### Phytoplasma detection methods I

Dijana Skoric & Josef Spak

9:45 Evaluation of SSCP analysis as a tool for detection of phytoplasma molecular variability

Martina Šeruga Musić,  
M. Krajačić, D. Škorić

10:00 Experiences with phytoplasma detection and identification by different methods

Jana Fránová, K. Petrzik,  
F. Paprštejn, J. Kučerová,  
M. Navrátil, P. Válková,  
J. Nebesářová, H. Jakešová

10:15 Optimization of extraction procedure can improve phytoplasma diagnostics

Jana Boben, N. Mehle,  
M. Ravnikar

10:30 A real-time PCR method for detection and quantification of '*Candidatus* Phytoplasma prunorum' in its natural hosts

Marta Martini, N. Loi,  
P. Ermacora, L. Carraro,  
M. Pastore

### 10:45 Coffee break

## Phytoplasma detection methods II

Marta Martini & Ing Ming Lee

- 11:00 Detection of "flavescence dorée" in grapevines by RT-PCR *Sabrina Palmano*, P. Margaria, C. Marzachi, M. Turina
- 11:15 Establishing a real-time PCR detection procedure of "flavescence dorée" and "bois noir" phytoplasmas for mass screening M. Gori, R. Monnanni, M. Buiatti, E. Goti, S. Carnevale, L. Da Prato, A. Bertaccini, *Stefano Biricolti*
- 11:30 Developing a method for phytoplasma identification in cactus pear samples from California  
*Assunta Bertaccini*, A. Calari, P. Felker  
Repeated conserved sequences as genetic markers for phytoplasma detection  
*Rasa Jomantiene*, R.E. Davis *Rasa Jomantiene*
- 11:45 Problems in detection of European stone fruit yellows phytoplasma in apricot trees in the Czech Republic - *Jaroslav Polák*, J. Salava, M. Bryxiová, J. Svoboda  
Seasonal occurrence of '*Candidatus* phytoplasma pyri' in pear trees in the Czech Republic - *Jana Kučerová*, R. Karešová, M. Navrátil, P. Válková *Jana Kučerová*  
Detection of latent apple proliferation infection in two differently aged apple orchards in South Tyrol (northern Italy) - Sanja Baric, C. Kerschbamer, J. Dalla Via

## New phytoplasmas and new phytoplasma diseases I *Kadryie Caglayan & Jamal Khan*

- 12:00 A new phytoplasma associated with witches' broom of *Cassia italica* in Oman A.J. Khan, A.M. Al-Subhi, *Alberto Calari*, N.A. Al-Saady, A. Bertaccini
- 12:15 A new disease causing stunting and shoot proliferation in *Gypsophila* is associated with phytoplasma *Abdullah Gera*, P.G. Weintraub, L. Maslenin, S. Spiegel, M. Zeidan
- 12:30 Detection and characterization of a phytoplasma associated with frog skin disease in cassava *Elizabeth Alvarez*, J.F. Mejia, G.A. Llano, J.B. Loke
- 12:45 A severe disease induced by '*Candidatus* Phytoplasma asteris' in *Digitalis lanata* M.G. Bellardi, A. Benni, S. Paltrinieri, *Assunta Bertaccini*

13:00 Lunch

## New phytoplasmas and new phytoplasma diseases II *Elisabeth Boudon-Padieu & Eric Seemüller*

- 14:30 First report of group 16SrIII phytoplasma in loofah (*Luffa cylindrica*) *Helena G. Montano*, P.S.T. Brioso, J.O. Cunha Jr, D.V. Figueiredo, J.P. Pimentel
- 14:45 Virescence of tenweeks stock associated to phytoplasma S. Davino, A. Calari, M. Davino, *Matilde Tessitori*, A. Bertaccini, M.G. Bellardi
- 15:00 Phytoplasma infection in the four o'clock flower (*Mirabilis jalapa*) I. Sobolev, P.G. Weintraub, A. Gera, Y. Tam, *Sara Spiegel*
- 15:15 A new phytoplasma associated with a zigzag line pattern in leaves of *Lilium* spp. in Mexico N.E. Cortés-Martínez, *Ernestina Valadez-Moctezuma*, L.X. Zelaya-Molina, J. Aguilar-Ríos
- 15:30 "Al-Wijam", a new phytoplasma disease of date palm in Saudi Arabia *Khalid Alhudaib*, Y. Arocha, M. Wilson, P. Jones
- 15:45 *Sicana odorifera* (Cucurbitaceae): a new phytoplasma host - *Helena G. Montano*, P.S.T. Brioso, R.C. Pereira, J.P. Pimentel *Ali Masoud Al-Subhi*  
Molecular characterization of phytoplasma associated with *Echinops* witches' broom disease - *Ali Masoud Al-Subhi*, N.A. Al-Saady, A.J. Khan *Ali Masoud Al-Subhi*

16:00 Coffee break

16:15	Effects induced by fungal endophytes in <i>Catharanthus roseus</i> tissues infected by phytoplasmas	<i>Rita Musetti</i> , R. Polizzotto, S. Grisan, M. Martini, S. Borselli, L. Carraro, R. Osler
16:30	Factors affecting the spread of "bois noir" disease in grapevine cv Lambrusco in northern Italy	<i>Nicola Mori</i> , F. Pavan, R. Bondavalli, N. Reggiani, S. Paltrinieri, A. Bertaccini
16:45	Push and pull strategy to reduce <i>Hyalesthes obsoletus</i> population in vineyards by <i>Vitex agnus castus</i> as trap plant	<i>Tirtza Zahavi</i> , S. Peles, A. Harari, V. Soroker, R. Sharon
17:00	Breeding of apple rootstocks resistant to 'Candidatus Phytoplasma mali'	<i>Wolfgang Jarausch</i> , C. Bisognin, B. Schneider, S. Grando, R. Velasco, E. Seemüller
17:15	<i>Malus sieboldii</i> -based rootstocks mediate apple proliferation resistance to grafted trees	<i>Erich Seemüller</i> , E. Moll, B. Schneider
17:30	Screening and development of resistant sesame varieties against phytoplasma	P.K. Singh, <i>Mohammad Akram</i> , M. Vajpeyi, R.L. Srivastava, K. Kumar, R. Naresh
17:45	Survey of sweet orange cultivars for stubborn disease resistance in Iran <i>Naghmeb Nejat</i> , M. Salehi, M. Fayyazi, K. Izadpanah	
	Occurrence of 'Candidatus Phytoplasma mali' in apple cultivars or selections grown in Trentino (north Italy) orchards - <i>Flavio Roberto De Salvador</i> , M. Fisichella, M. Fontanari, S. Paltrinieri, E. Galassi, S. Tartarini, A. Bertaccini	<i>Çiğdem Ulubaş Serçe</i>
	Responses of six Turkish apricot cultivars to 'Candidatus Phytoplasma prunorum' under greenhouse conditions - <i>Çiğdem Ulubaş Serçe</i> , M. Gazel, S. Yalçın, K. Çağlayan	
18:00	Hot water treatment and field coverage of mother plant vineyards to prevent propagation material from phytoplasma infections - <i>Franco Mannini</i>	
	Activity of synthetic and natural compounds for phytoplasma control S. Chiesa, S. Prati, <i>Gemma Assante</i> , D. Maffi, P.A. Bianco	<i>Cristina Marzachi</i>
	Attempts to eliminate phytoplasmas from grapevine clones by tissue culture techniques - <i>Ivana Gribaudo</i> , P. Ruffa, D. Cuozzo, G. Gambino, C. Marzachi	
	Preliminary results on the evaluation of the effects of elicitors of plant resistance in chrysanthemum yellows phytoplasma infection - R. D'Amelio, N. Massa, E. Gamalero, G. D'Agostino, S. Sampò, G. Berta, F. Faoro, M. Iriti, D. Bosco, <i>Cristina Marzachi</i>	
18:15	Management of pear decline caused by "Candidatus Phytoplasma pyri" in Hungary <i>Sándor Süle</i> , G. Jenser, É. Szita	
	Verification of phytoplasma presence in certified fruit tree material in Emilia Romagna region - R. Bissani, S. Botti, <i>Marco Cardoni</i>	<i>Carlo Poggi Pollini</i>
	Investigation on European stone fruit yellows in experimental apricot orchards in the province of Trento (Italy) - <i>Carlo Poggi Pollini</i> , L. Bianchi, F. Forno, S. Franchini, L. Giunchedi, M. Gobber, L. Mattedi, P. Miorelli, D. Pignatta, D. Profaizer, C. Ratti, N. Reggiani	

**Phytoplasma phylogeny and characterization I**

*Marina Barba & Xavier Foissac*

- |       |   |   |
|-------|---|---|
| 9:00  | Occurrence and diversity of phytoplasmas detected in clematis and their relationships with grapevine "flavescence dorée" phytoplasmas                                 | <i>Luisa Filippin</i> , J. Jović, V. Forte, T. Cvrković, I. Toševski, M. Borgo, E. Angelini                     |
| 9:15  | Detection and diversity of "flavescence dorée" related phytoplasmas in alders surrounding infected vineyards in Aquitaine – France                                    | <i>Sylvie Malembic-Maher</i> , P. Salar, D. Vergnes, X. Foissac   |
| 9:30  | Molecular characterization of phytoplasmas in Chilean grapevines  | <i>Nicola Fiore</i> , S. Prodan, S. Paltrinieri, A. Gajardo, S. Botti, A.M. Pino, J. Montealegre, A. Bertaccini |
| 9:45  | Genetic structure of <i>Scaphoideus titanus</i> populations and genetic diversity of the epidemic strains of "flavescence dorée" phytoplasma: the situation in France | <i>Daciana Papura</i> , M. van-Helden, X. Giresse, P. Salar, J.-L. Danet, X. Foissac, S. Malembic-Maher         |
| 10:00 | Distribution and molecular characterization of apple proliferation phytoplasma in Turkey  | <i>Didem Canik</i> , F. Ertunc  |
| 10:15 | Molecular investigation on the genetic polymorphism of ' <i>Candidatus</i> Phytoplasma prunorum' detected in plum and apricot fruit trees                             | <i>Luca Ferretti</i> , G. Pasquini, G. Albanese, M. Barba   |
| 10:30 | <i>Imp</i> and <i>secY</i> , two new markers for MLST (Multilocus Sequence Typing) in the 16SrX phytoplasma taxonomic group   | <i>Jean-Luc Danet</i> , P. Bonnet, W. Jarausch, L. Carraro, D. Skoric, G. Labonne, X. Foissac                   |

10:45 *Coffe break*

**Phytoplasma phylogeny and characterization II**

*Fiona Constable & Paolo Ermacora*

- |       |  |  |
|-------|--|--|
| 11:00 | Identification of phytoplasmas belonging to aster yellows ribosomal group in vegetables in Serbia  | <i>Bojan Duduk</i> , A. Bulajić, N. Duduk, A. Calari, S. Paltrinieri, B. Krstić, A. Bertaccini |
| 11:15 | Phylogenetic analysis of phytoplasmas based on sequences derived from the <i>secA</i> and 23S rDNA genes   | <i>Jennifer Hodgetts</i> , N. Harrison, R. Mumford, N. Boonham, M. Dickinson                   |
| 11:30 | Genetic diversity of Italian and French "bois noir" phytoplasma isolates<br><i> Davide Pacifico</i> , X. Foissac, F. Veratti, C. Marzachi                                    |  |
|       | Phylogenetic relationships of sugarcane grassy shoot phytoplasma with closely related agents – <i>Govind P. Rao</i> , S. Srivastava, M. Singh, C. Marcone                    | <i> Davide Pacifico</i>  |
|       | Virtual RFLP analysis of 16S rDNA sequences identifies new subgroups in the clover proliferation phytoplasma group – W. Wei, I.-M. Lee, R.E. Davis, X. Suo, <i> Yan Zhao</i> |  |

- 11:45 Grapevine yellows survey in grape growing areas of four districts in Bologna province - *Valerio Vicchi*, P. Grillini, A.R. Babini, G. Ghermandi, R. Cornale
- Relationships among *Hyalesthes obsoletus*, its herbaceous host plant and "bois noir" phytoplasma strain in vineyard ecosystems in the Marche region (central-eastern Italy) - *Paola Riolo*, L. Landi, S. Nardi, N. Isidoro
- Molecular characterization of stolbur isolates collected in grapevines, weeds and insects in central and southern Italy - *Graziella Pasquini*, L. Ferretti, A. Gentili, B. Bagnoli, V. Cavalieri, M. Barba

*Graziella  
Pasquini*

- 12:00 Phytoplasmas in Lebanon: characterization of '*Candidatus Phytoplasma pyri*' and stolbur phytoplasma respectively associated with pear decline and grapevine "bois noir" diseases - *Pascal Salar*, E. Choueiri, F. Jreijiri, S. El Zammam, J.-L. Danet, X. Foissac
- Molecular diversity in '*Candidatus Phytoplasma mali*' in Lombardia - *Paola Casati*, A. Stern, P. Spadone, M. Calvi, D. Bulgari, P.A. Bianco, G. Belli
- Sequencing of the ribosomal protein gene *rpl16* from '*Candidatus Phytoplasma ulmi*' infecting a historic *Ulmus minor* - G. Durante, F. Quaglino, *Pier Attilio Bianco*, P. Casati

*Pier  
Attilio  
Bianco*

## Epidemiology I

*Margaret Redinbaugh & Abdullah Gera*

- 12:15 Uneven distribution of stolbur phytoplasma in Italian grapevines as revealed by nested-PCR - F. Terlizzi, *Rino Credi*
- Incidence of "bois noir" phytoplasma in different wine-growing regions of Spain and its relation to *Hyalesthes obsoletus* - J. Sabaté, A. Laviña, J. Legorburu, J. Fortanete, J.J. Perez de Obanos, J.L. Perez Marín, J. Reyes, *Assumpció Batlle*
- Surveys for grapevine yellows phytoplasmas in Bosnia and Herzegovina  
*Duška Delić*, G. Seljak, M. Martini, P. Ermacora, L. Carraro, A. Myrta, G. Đurić

*Duška  
Delić*

- 12:30 Detection and incidence of FD and BN phytoplasmas in vineyards of different grapevine cultivars in Serbia - S. Kuzmanovic, M. Martini, *Zarko Ivanovic*, D. Josic, S. Živkovic, M. Starovic
- Presence of *Scaphoideus titanus* on American grapevine in woodlands, and infection with "flavescence dorée" phytoplasmas - *Federico Lessio*, R. Tedeschi, A. Alma
- "Flavescence dorée" in Switzerland: spread of the disease in canton of Ticino and of its insect vector, now also in cantons of Vaud and Geneva  
*Santiago Schaerer*, H. Johnston, P. Gugerli, C. Linder, L. Shaub, L. Colombi

*Federico  
Lessio*

- 12:45 Occurrence, distribution and detection of potato purple top phytoplasma disease in the Punjab (Pakistan) - *Mian Muhammad Nasir*, S.M. Mughal, S.M. Khan
- Detection of phytoplasmas in plantlets grown from different batches of seed-potatoes - *Samanta Paltrinieri*, A. Bertaccini
- Study on diverse grafting techniques for their capability in rapid and efficient transmission of apple proliferation disease to different host plants  
*Magid Aldaghi*, S. Massart, S. Steyer, M. Lateur, M.H. Jijakli
- Molecular identification of phytoplasmas infecting myrtle plantations in Sardinia (Italy) *Vanda Assunta Prota*, R. Garau, S. Paltrinieri, S. Botti, S. Nahdi, A. Calari, A. Sechi, A. Bertaccini

*Vanda  
Assunta  
Prota*

13:00 Lunch

14:30	Detection of phytoplasma DNA in embryos from coconut palms in Ghana, and kernels from maize in Peru	J.O. Nipah, P. Jones, J. Hodgetts, <i>Matt Dickinson</i>
14:45	Transmission of ' <i>Candidatus Phytoplasma mali</i> ' by root bridges under natural and experimental conditions	A.M. Ciccotti, P.L. Bianchedi, P. Bragagna, M. Deromedi, M. Filippi, F. Forno, <i>Luisa Mattedi</i>
15:00	Research on European stone fruit yellows (ESFY) in Germany	<i>Barbara Jarasch</i> , A. Fuchs, I. Mühlentz, I. Lampe, U. Harzer, W. Jarasch
14:30	Phytoplasma infected plants in Austrian forests: role as a reservoir?	E. G. Borroto Fernández, A. Calari, V. Hanzer, H. Katinger, A. Bertaccini, <i>Margit Laimer</i>
15:30	Bunchy top symptom of papaya in Cuba: new insights	<i>Yaima Arocha</i> , B. Piñol, M. López, I. Miranda, R. Almeida, M. Wilson, P. Jones
15:45	The syndrome "basses richesses" of sugar beet in France is associated with different pathogen types and insect vectors	A. Bressan, O. Sémétey, B. Nusillard, <i>Elisabeth Boudon-Padieu</i>
16:00	Maize redness in Serbia caused by stolbur phytoplasma is transmitted by <i>Reptalus panzeri</i>	<i>Jelena Jović</i> , T. Cvrković, M. Mitrović, S. Krnjanić, A. Petrović, M.G. Redinbaugh, R.C. Pratt, S.A. Hogenhout, I. Toševski
16:15	Host plant specificity of <i>Hyalosthes obsoletus</i> and consequences for "bois noir" epidemiology	<i>Michael Maixner</i> , J. Johannesen, K. Michel, B. Lux, A. Seitz

16:30 *Posters down*

*year 20?? Second International Phytoplasma Group meeting IPWG*

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... year 20???



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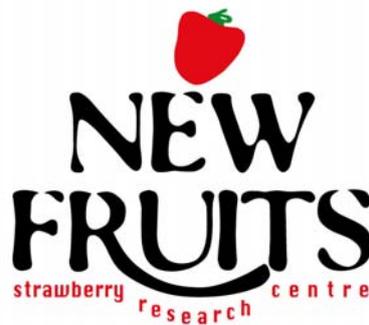


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