

- ICVG XVI – DIJON, France, 31 Aug – 4 Sept 2009

16th Meeting of the International Council for the Study of Virus and Virus-like Diseases of the Grapevine

<https://www.colloque2.inra.fr/icvg16/>

PROGRAMME

Sunday 30 August – *Reception hall of the SNCF Railway station of Dijon Ville*
welcome and registration

Monday 31 August – *Grand Dijon*

8.00 – *registration continued – mounting of posters*

8.45 – **Opening session**

9.30 – Coffee break

10.00 – **Oral Session I – Introductory Key notes**

Chair : Edna Tanne - Elisabeth Boudon-Padieu

10.00 Martelli G. P.
Grapevine Virology Highlights 2006-09

10.30 Gugerli P.
25 years of serological identification of grapevine leafroll-associated viruses: antiserum and monoclonal antibodies to GLRaV-1 to GLRaV- 9

11.00 Dolja V. V.
New developments in understanding gene functions and evolution of the grapevine Closteroviruses

11.30 – **Oral Session II – Detection, plant material and virus sources**

Chair : Raymond Johnson – Sandrine Rousseaux

10.30 *Invited lecture* : Sabanadzovic S.
Viruses of native *Vitis* germplasm in the Southeastern united states

12.00 Comparison of High Throughput Low Density Arrays, Rt-PCR and Real-Time Taqman[®] RT-PCR in the detection of grapevine viruses
Osman F., C. Leutenegger, D.A. Golino, A. Rowhani

12.15 Grapevine viruses in Chile: Multi-parallel detection based on metagenomic strategies
Engel E. A., P. F. Escobar, P. Rivera, P. D.T. Valenzuela.

12.30 Grapevine virus collection at Nyon: A contribution to a putative network of a worldwide grapevine virus reference collection
Gugerli P., J-J. Brugger, M-E. Ramel, S. Besse.

12.45 – Lunch

13.45 - Oral Session III – Fanleaf and other spherical viruses

Chair : Olivier Lemaire – Thierry Wetzel

13.45 **Invited lecture**

Demangeat G.

Nepovirus transmission by Longidoridae nematodes with special emphasis on the pair *Grapevine fanleaf virus/Xiphinema index*

14.15 **Identification of plasmodesmata located receptors involved in the movement of *Grapevine fanleaf virus (GFLV)* and other viruses employing tubule-guided movement**

Amari K., E. Boutant, C. Hofmann, L. Fernandes-Calvino, C. Schmitt-Keichinger, P. Didier, C. Thomas, A. Lerich, M. Heinlein, Y. Mély, A. Maule, C. Ritzenthaler

14.30 **Symptom determinants on the *Arabidopsis thaliana* mosaic nepovirus genome**

Dupuis L., C. Himber, P. Dunoyer, A. Bassler, M. Keller, T. Wetzel

14.45 **Recombination events in Rna-2 of *Grapevine fanleaf virus* and *Arabidopsis thaliana* mosaic virus in grapevines affected by Yellow mosaic**

Jawhar J., A. Minafra, P. La Notte, C. Pirolo, P. Saldarelli, D. Boscia, V. Savino, G. P. Martelli

15.00 **The specificity of GFLV and ARMV transmission by their respective nematodes: from structure to function**

Schellenberger P., G. Demangeat, P. Andret-Link, C. Keichinger, M. Bergdoll, P. Bron, S. Trapani, B. Lorber, C. Sauter, A. Marmonier, D. Esmenjaud, O. Lemaire, M. Fuchs, C. Ritzenthaler

15.15 **Partial RNA-2 Sequence of *Grapevine Bulgarian latent virus***

Elbeaino T., F. Fallanaj, M. Digiario, S. Kuzmanović

15.30 **Characterization of *Raspberry bushy dwarf virus* isolates from grapevine**

Mavrič Pleško I., M. Viršček-Marn, S. Širca, G. Urek

15.45 **Isolation of movement protein gene by the use of degenerate primers from Iran isolates of *Grapevine fanleaf virus* and assessment of the genetic diversity**

Sokhandan Bashir N., A. Delpasand Khabbazi

16.00 – Coffee break

Official photo

16.45 - Oral Session IV – Epidemiology – Survey of vineyards

Chair : Giuseppe Belli – Adib Rowhani

16.45 **Development and validation of sampling strategies for the detection of endemic viruses of Australian grapevines**

Constable F., P. Nicholas, N. Nancarrow, B. Rodoni

17.00 **Preliminary results on the quantification of different grapevine viruses in a typical northwestern Italian cultivar**

Pacifico D., P. Caciagli, F. Mannini, F. Veratti, C. Marzachi'

17.15 **Current status of grapevine viruses in the Pacific Northwest vineyards of the United States**

Rayapati N.A., M.A. Tefera, A.J. Olufemi, J. Sridhar, K. Gandhi, L.R. Gutha, R.R. Martin

17.30 **Survey of wild grapes, weed and cover crop species for grapevine viruses**

Golino D.A., S.T. Sim, F. Osman, R. Aldamrat, V. Klaassen, A. Rowhani

- 17.45 **Contrasting epidemiologies of grapevine viruses depending on appellation and variety.**
Legorburu F.J., E. Recio, E. López, M. Larreina, F. Aguirrezábal, J.F. Cibriaín, R. González-Rodríguez, C. Cabaleiro

18.00 - Poster session

ICVG Steering Committee Meeting

19.00 – *Departure to the official reception – Dijon Town Hall*

Evening free

Tuesday 1 September - Grand Dijon

8.00 – Oral session V – Phytoplasma diseases

Chair : Antoine Caudwell – A. Bertaccini

- 08.00 ***Invited lecture : Foissac X.***
Ecology and taxonomy of Flavescence dorée phytoplasmas: the contribution of genetic diversity studies
Malembic-Maher S., P. Salar, P. Carle, X. Foissac
- 08.25 **Molecular identification and geographic distribution of Flavescence dorée phytoplasma strains**
Bertaccini A., S. Paltrinieri, F. Dal Molin, J. Mitrović, B. Duduk
- 08.40 **Comparison of prevalence, geographical distribution and biological properties of two Flavescence dorée phytoplasma strains**
Salar P., D. Clair, X. Foissac, E. Boudon-Padieu, S. Malembic-Maher
- 08.55 **Genetic polymorphism of stolbur phytoplasma in grapevine, wild plants and insects**
Filippin L., E. Tonon, V. Forte, M. Zottini, G. Santovito, M. Borgo, E. Angelini
- 09.10 **Aspects of the interaction of Stolbur phytoplasma, vectors and host plants in the two epidemic systems of Bois noir**
Maixner M., J. Johannesen, A. Seitz
- 09.25 **On host races and co-evolution of the grapevine yellows vector *Hyaolesthes obsoletus* and stolbur phytoplasma**
Johannesen J., A. Seitz, N. El Sayar, M. Maixner

9.40 - *Coffee break*

10.15 - Oral Session V – Phytoplasma diseases (continued)

Chair : Michael Maixner – Djana Skoric

- 10.15 **Molecular markers among stolbur phytoplasma (16SrXII-A) strains and their association with natural ecologies of grapevine Bois noir in Italy**
Quaglino F., Y. Zhao, P.A. Bianco, W. Wei, G. Romanazzi, S. Murolo, M.R. Silletti, V. Savino, P. Casati, G. Durante, R.E. Davis
- 10.30 **Long term effects of Stolbur phytoplasma on grapevines in Israel**
Zahavi T., R. Sharon, M. Mawassi, V. Naor

- 10.45 **'Bois noir' phytoplasma induces significant reprogramming of genes involved in carbohydrate metabolism and photosynthesis in the field grown grapevine**
Dermastia M., M. Hren, P. Nikolić, A. Rotter, N. Terrier, M. Ravnkar, K. Gruden
- 11.00 **Detection and identification of a new phytoplasma disease in grapevines in the Western Cape**
Engelbrecht M., J. Joubert, J.T. Burger
- 11.15 **Biochemical pathways in phytoplasma-plant interactions in symptomatic and recovered leaves of Bois noir - affected grapevines**
Landi L., G. Romanazzi

11.30 - Poster Session

12.45 – Lunch

14.00 - Oral Session VI – Molecular biology – New technologies

Chair : Johan Burger – Pascale Seddas

- 14.00 **Invited lecture : Sela I.**
A universal vector for expression and silencing in plants (including grapevine)
Peretz Y., R. Mozes-Koch, E. Tanne, I. Sela
- 14.30 **Expression/silencing of GVA components in grapevine and *N. benthamiana* using the IL-60 system**
Peretz Y., I. Sela, E. Tanne
- 14.45 **Virome of a vineyard: Ultra deep sequence analysis of diseased grapevines**
Coetzee B., M-J. Freeborough, H.J Maree, J-M. Celton, D.J.G. Rees, J.T. Burger
- 15.00 **Deep sequencing analysis of viral short RNAs from Pinot noir clone ENTAV 115**
Pantaleo V., P. Saldarelli, L. Miozzi, A. Giampetruzzi, A. Gisel, S. Moxon, T. Dalmay, J. Burgyan
- 15.15 **High-Throughput sequencing analysis of RNAs from a grapevine showing Syrah decline symptoms reveals a multiple virus infection that includes a novel virus**
Al Rwahnih M., S. Daubert, D.A. Golino, A. Rowhani
- 15.30 **Characterisation of the genomic and subgenomic RNA of *Grapevine leafroll-associated virus 3 (GLRaV-3)***
Maree H.J., E. Jooste, D. Stephan, M-J. Freeborough, J.T. Burger
- 15.45 ***Grapevine fanleaf virus* replication: illuminating the way**
Schmitt-Keichinger C., M-C. Herranz-Gordo, F. Courte, R. Elamawi, S. Chapuis, P. Didier, Y. Mély, C. Ritzenthaler

16.00 – Coffee break

16.30 - Oral Session VII – Virus effects – Control – Crop performance

Chair : Deborah Golino – Marc Fuchs

- 16.30 **Transgenic rootstocks expressing GFLV coat protein gene in a three years field trial; resistance assessment, impact on GFLV diversity and exchanges between rootstock and scion**
Hemmer C., E. Vigne, V. Goldschmidt, V. Komar, A. Marmonier, L. Valat, G. Demangeat, S. Vigneron, J.E. Masson, O. Lemaire
- 16.45 **A case study of control of grapevine leafroll disease spread on Vergelegen wine estate, South africa, 2002-2008**
Pietersen G., N. Spreeth, T. Oosthuizen, A. Van Rensburg, D. Lottering, D. Tooth, N. Rossouw
- 17.00 **Tentative analysis of the economic impact of grapevine leafroll disease in the vineyard of Valais (Switzerland)**
Besse S., C. Rüttsche, P. Gugerli
- 17.15 **Field performances and wine quality modification in a clone of Dolcetto (*Vitis vinifera* L.) after GLRaV-3 elimination**
Mannini F., A. Mollo, D. Cuzzo, R. Credi
- 17.30 **A mild strain of *Grapevine leafroll-associated virus 3* is present in desirable clones of Crimson seedless table grapes in western australia**
Habibi N., I. Cameron, J. Randles

17.45 - Poster Session

18.30 *General Assembly of the ICVG*

Evening free

Wednesday 2 September - *Grand Dijon*

9.00 – Oral session VIII – Viruses of the leafroll complex

Chair : Etienne Herrbach – Paul Gugerli

- 09.00 ***Invited lecture* : Cabaleiro C.**
Current advances in the epidemiology of Grapevine leafroll disease
- 09.30 **First epidemiological study of ampeloviruses in Turkish vineyards**
Buzkan N., S. Karadag, V. Oztekin, A. Kaya, A. Minafra, Y. Ben-Dov
- 09.45 **Distribution and diversity of Leafroll-associated ampeloviruses in viruliferous vectors and grapevine hosts**
Fuchs M., P. Marsella-Herrick, G.M. Loeb, T.E. Martinson, H.C. Hoch
- 10.00 **Identification and distribution of three divergent molecular variants of *Grapevine leafroll-associated virus - 3* (GLRaV-3) in South african vineyards**
Jooste E., H.J. Maree, G. Pietersen, D.E. Goszczynski, J.T. Burger
- 10.15 **Taxonomy, complete nucleotide sequence and genome organization of *grapevine leafroll-associated virus - 7***
Mikona C., C. Turturo, B. Navarro, W. Menzel, A. Minafra, M.E. Rott, G.P. Martelli, W. Jelkmann

10.30 – *Coffee break*

11.00 - Poster Session

12.45 – *Lunch*

14.00 – Oral session VIII– Viruses of the leafroll complex (continued)

Chair : Filomena Fonseca – Ivana Gribaudo

- 14.00 **Comparison of phylogenetic inference based on HSP70, HSP90 and CP genes of GLRaV-3: implications for detection and taxonomy**
Teixeira Santos M., F. Esteves, M. De Lurdes Rocha, J.E. Eiras-Dias, F. Fonseca
- 14.15 **The role of seasonality on mealybug transmission of *Grapevine leafroll-associated viruses*: an ecological hypothesis**
Almeida R.P.P., C-W. Tsai, K.M. Daane
- 14.30 **Spread of GVA, GLRaV-1 and -3 and role of the mealybug vector *Heliococcus bohemicus* in a vineyard of Langhe (Northwestern Italy)**
Bertin S., F. Mannini, D. Bosco, G. Gambino, D. Cuozzo, I. Gribaudo
- 14.45 **Transmission of *Grapevine leafroll-associated virus 3* (GLRaV-3) by three soft scale insect species (Hemiptera: Coccidae) and notes on their developmental biology on grapevine**
Krüger K., N. Douglas
- 15.00 **Monitoring of *Grapevine leafroll-associated virus 1* (GLRaV-1) dispersion by the mealybug *Phenacoccus aceris***
Le Maguet J., E. Herrbach, G. Hommay, M. Beuve, E. Boudon-Padieu, O. Lemaire
- 15.15 **Transmission trials of grapevine viruses by the mealybug *Planococcus ficus* (Hemiptera: Pseudococcidae)**
Credi R., F. Terlizzi, L. Martini, S. Borsari

15.30 – *Coffee break*

16.00 - Oral session VIII– Viruses of the leafroll complex (end)

Chair : Kerstin Krüger – Nuredin Habili

- 16.00 **Transmission of *Grapevine leaf roll-associated virus-1* and -3 (Ampelovirus) and *Grapevine virus A* (Vitivirus) by natural populations of soft scales and mealybugs in the North-Eastern French vineyard**
Hommay G., J. Le Maguet, V. Komar, O. Lemaire, E. Herrbach
- 16.15 **Rapid spread of leafroll disease in Cabernet Sauvignon grapevines in Napa Valley, California**
Golino D.A., E. Weber, S.T. Sim, A. Rowhani
- 16.30 **Sequence variation in *Grapevine leafroll-associated virus-3* (GLRaV-3) New Zealand isolates**
Chooi K.M., M.N. Pearson, D. Cohen, J.C.H. Pong

16.45 – Last Poster Session

19.00. Removal of posters

19.30 departure to the Official dinner – Château de Saulon la Rue

Thursday 3 September

Full day trip to vineyards of Côtes de Beaune and Mâconnais

8.00 - Departure

12.30 - Lunch at the "Maison des Vins" in Mâcon

19.00 - Return to Dijon

Evening free

Friday 4 September – Conseil régional de Bourgogne

8.30 - Oral session IX- Rugose wood complex

Chair : Dirk Stephan – Alberto Materazzi

8.30 **Invited lecture: Saldarelli P.**

Flexiviruses: a grapevine point of view

9.00 **Different variants of GRSPaV are associated to diverse diseases in grapevine**

Borgo M., N. Bertazzon, F. Anaclerio, E. Angelini

9.15 **Molecular characterization of biologically divergent strains of GRSPaV**

Bouyahia H., M. Della Bartola, A. Materazzi, E. Triolo

9.30 **Toward development of *Grapevine rupestris stem pitting-associated virus* into a VIGS vector**

Meng B., C. Li, W. Wang

9.45 **Characterisation of ORF5 of three South African *Grapevine virus A* variants as pathogenicity determinant in *Nicotiana benthamiana***

Blignaut M., D. Stephan, J. Du Preez, S. Haviv, M. Mawassi, J.T. Burger

10.00 – Coffee break

10.30 Sessions IX and X - Chair : Piero Bianco – Keramatollah Izadpanah

10.30 - Oral session IX- Rugose wood complex (continued)

10.30 **Towards the elucidation of *Grapevine virus A* ORF 2 gene function**

Du Preez J., D. Stephan, D.E. Goszczynski, M. Muruganatham, M. Mawassi, J.T. Burger

10.45 **Single domain antibodies for detection of GVB**

Masri S., H. Rast, N. Habili

11.00 – Oral session X – Diseases of unclear etiology

11.00 **Viral sanitary status and genetic diversity of *Rupestris stem pitting associated virus* in French Syrah clones exhibiting various susceptibility levels to decline**
Beuve M., B. Moury, A-S. Spilmont, L. Sempé-Ignatovic, C. Hemmer, O. Lemaire

11.15 – **Discussion on Posters 91-95**

11.30 – General conclusions

Chair : Paul Gugerli – Elisabeth Boudon-Padieu

12.15 – Farewell drink offered by the Conseil régional de Bourgogne

12.45 – Lunch

Half day trip to Jura vineyards

14.00 – Bus Departure

19.00 – Return to Dijon

LIST OF POSTERS (*)

Topic II – Detection – Plant material and Virus source

- P 01 Grapevine virus Q: The first plant virus with a permuted active site of RNA-dependent RNA polymerase**
Sabanadzovic S., N. Abou Ghanem-Sabanadzovic, A. E. Gorbalenya
- P 02 Production of monoclonal antibodies to *Grapevine leafroll-associated virus 9 (GLRaV-9)***
Gugerli P., S. Rigotti, M-E. Ramel, N. Habili, A. Rowhani, W. Bitterlin, S. Besse.
- P 03 Detection of viruses in seeds of infected grapevines with an emphasis on *Grapevine rupestris stem pitting-associated virus***
Habili N., R. Davies, J. Randles.
- P 04 Real time PCR for sensitive reliable grapevine virus detection**
Malan S., M-J. Freeborough, J. Burger
- P 05 Prevalence of seven grapevine viruses in table grapes from Vinalopó (Alicante) determined by ELISA and Real-Time RT-PCR**
Bertolini E., C. Martínez, J. García, J. Juárez, A. Martínez, E. Vidal, A. Yuste, M. Albiach-Martí, M. Cambra, A. Olmos.
- P 06 Virus-derived sequences in the nuclear genome of grapevine**
Bertsch C., M. Beuve, V. V. Dolja, M. Wirth, F. Pelsy, E. Herrbach, O. Lemaire
- P 07 How widespread is the presence of *Grapevine leafroll-associated virus 8 (GLRaV-8)* putative capsid protein gene sequences in DNA and RNA obtained from grapevine varieties?**
Esteves F., M. Teixeira Santos, M. De Lurdes Rocha, J. E. Eiras-Dias, F. Fonseca
- P 08 The occurrence of viruses in the clonal selection vineyards in Czech republic**
Holleinová V., L. Bláhová, K. Baránková
- P 09 Contribution of new certified clones to the improvement of the italian table grape industry**
La Notte P., C. Pirolo, P. Giannini, G. Bottalico, A. Campanale, V. Savino, G. P. Martelli
- P 10 Clonal selection and sanitary status of local grapevine germplasm in Serbia**
Mandić B., Ž. Ivanović, L. Susca, G. Bottalico, M. Starović, D. Jakšić, S. Kuzmanović, D. Ivanišević, V. Gavrilović, Korać N., Digiario M., P. La Notte
- P 11 Old grapevine varieties vineyards: a window over a pre sanitary selection era and a source of viruses**
Teixeira Santos M, M. De Lurdes Rocha, A. Guedes Da Silva, F. Esteves, F. Fonseca, J. E. Eiras-Dias

Topic III - Fanleaf and other spherical viruses

- P 12 Real-time PCR of *Grapevine fanleaf virus***
Bláhová L., M. Pidra
- P 13 First records of *Arabis mosaic virus (ARMV)* on grapevine in Spain**
Abelleira A., J. P. Mansilla, V. Padilla, I. Hita, C. Cabaleiro, A. Olmos, F. J. Legorburu
- P 14 Absolute quantification of *Grapevine fanleaf virus* in *Chenopodium quinoa* using real-time RT-PCR assays**
Ulloa S., C. Ritzenthaler, P.D.T. Valenzuela, C. Bruno
- P 15 Detection of Virus like particles (Vlps) by ISEM in transgenic grapevines expressing different GFLV CP-constructs**
Gottschemel J., M. Castellano, F. Maghuly, M. Laimer
- P 16 Distribution of *Grapevine fanleaf virus (GFLV)* in grapevines during the season**
Čepin U., S. Krsmanović, M. Pompe-Novak, M. Ravnikar

- P 17 Comparisons of genomic and pathological features among barley and grapevine infecting-isolates of *Arabis mosaic virus***
Marmonier A., E. Vigne, V. Komar, G. Demangeat, S. Besse, P. Gugerli, O. Lemaire
- P 18 *Nicotiana benthamiana* plants expressing viral small interfering RNA show differential resistance level against GFLV**
Bruno C., P.D.T. Valenzuela
- P 19 Genetic diversity of the coat protein gene of Chilean isolates of *Grapevine fanleaf virus***
Zamorano A., A.M. Pino, N Fiore
- P 20 Genetic variability within the coat protein gene of *Grapevine fanleaf virus* (GFLV) isolates from South Africa**
Liebenberg A., M-J. Freeborough, C. J Visser, D.U. Bellstedt, J.T. Burger
- P 21 Mycorrhiza reduce development of the nematode vector of *Grapevine fanleaf virus* in soil and root systems**
Hao Z., L. Fayolle, D. Van Tuinen, X. Li, V. Gianinazzi-Pearson, S. Gianinazzi
- P 22 Evidence of recombination in 2A gene from a *Grapevine fanleaf virus* isolate**
Nourinejhad Zarghani S., M. Shams-Bakhsh, M. Pazhohande, N. Sokhandan Bashir

Topic IV – Epidemiology – Survey of vineyards

- P 23 A preliminary survey of grapevine viruses in kurdistan province (West of Iran)**
Afsharifar A.R., M. Kamali, B. Harighi, S. Bahrami Kamangar, V. Roumi, K. Izadpanah
- P 24 Occurrence of grapevine leafroll-associated virus-1 and 3 in Croatian autochthonous grapevine varieties from Dalmatia**
Voncina D., E. Dermic, B. Cvjetkovic, E. Maletic, I. Pejic, J. Karoglan Kontic
- P 25 Survey of major grapevine virus diseases in the vineyard of Valais (Switzerland)**
Besse S., P. Gugerli
- P 26 A survey of grapevine viruses in native cultivars in old plantations of Ștefănești – Argeș vineyard, România**
Buciumeanu E-C., I.C. Guță, F. Semenescu
- P 27 A survey for endemic and exotic viruses of Australian grapevines**
Constable F., P. Nicholas, N. Nancarrow, B. Rodoni
- P 28 Frequency of occurrence of grapevine virus disease-complexes based on over 30 years indexing-results in Hungary**
Lázár J., M. Terjék
- P 29 Emerging diseases of the grapevine at the Ukraine**
Milkus B.N., I.D. Zhun'ko, N.V. Limanska, L.A. Konup
- P 30 Sanitary status of autochthonous minor wine grape varieties: an unusual diffusion of *Arabis mosaic virus***
Materazzi A., C. D'Onofrio, H. Bouyahia, E. Triolo
- P 31 The virus status of grapevine mother plantations in Cyprus**
Neophytou G., K. Sykas, N. Ioannou
- P 32 Presence of GLRaV -1, -2, -3, -4 and -6 in Spanish vine material according to different ecosystems.**
Padilla V., I. Hita, B. García de Rosa, C.V. Padilla, E. Salmerón, N. López, S. Lucas

Topic V - Phytoplasma diseases

- P 33 Proteomic analysis of grapevine (*Vitis vinifera* L. cv. Nebbiolo) midrib tissues infected by flavescente dorée phytoplasma**
Margaria P., S. Palmano

- P 34 Study of *rpIP* gene for characterization and phylogenetic analysis of phytoplasma strains within the 16Sr-V group**
Durante G., E. Boudon-Padieu, D. Clair, F. Quaglino, P. Casati, P.A. Bianco
- P 35 Real-time PCR assay for diagnosis of Flavescence dorée (16Sr-V)**
Durante G., M. Calvi, A. Colombo, P.A. Bianco, P. Casati
- P 36 Detection of grapevine Flavescence dorée and Bois noir phytoplasmas by multiplex Real-time PCR (Taqman®)**
Terlizzi F., C. Ratti, C. Poggi Pollini, A.. Pisi, R. Credi
- P 37 Detection of phytoplasmas associated with grapevine yellows in rootstocks**
Borgo M., L. Filippin, N. Bertazzon, E. Angelini
- P 38 High occurrence of *Scaphoideus titanus* on wild rootstocks in North Eastern Italy**
Forte V., M. Borgo, L. Dalla Cia, E. Angelini
- P 39 Spatial correlation of *Scaphoideus titanus* Ball adults on European grapevine at a plot scale: a case study**
Lessio F., E. Borgogno Mondino, A. Alma
- P 40 Do *Scaphoideus titanus* larvae aggregate for feeding ?**
Chuche J., A. Boursault, D. Thiéry
- P 41 Acquisition of Flavescence dorée phytoplasma by *Scaphoideus titanus* Ball from recovered and infected grapevines of Barbera and Nebbiolo cultivars**
Galletto L., C. Roggia, C. Marzachi', A. Alma, D. Bosco
- P 42 Graft transmission trials of Flavescence dorée phytoplasma from recovered grapevines**
Carraro L., N. Loi, P. Ermacora, M. Martini, M. Borgo, P. Casati, R. Osler
- P 43 Microbial diversity in healthy, yellows infected and recovered grapevines**
Bulgari D., P. Casati, L. Brusetti, F. Quaglino, D. Daffonchio, P.A. Bianco
- P 44 Flavescence dorée in the Empordà (Catalonia): results of *Scaphoideus titanus* containment through aerial treatments**
Torres E., J. Rahola, J. Bech, S. Paltrinieri, A. Bertaccini
- P 45 Epidemics of Flavescence dorée disease in Portugal**
Sousa E., C. Sá, F. Cardoso, M. Mesquita, A. Oliveira, P. Casati, P.A. Bianco
- P 46 Grapevine cultivar Plovdina – is it really an indicator plant for flavescence dorée disease ?**
Kuzmanović S., D. Jošić, Ž. Ivanović, M. Starović, S. Stojanović, G. Aleksić, M. Tošić
- P 47 Phytoplasma diffusion through grapevine propagation material and hot water treatment**
Mannini F., N. Argamante, G. Gambino, A. Mollo
- P 48 Towards strain differentiation among grapevine bois noir phytoplasmas**
Contaldo N., B. Duduk, S. Paltrinieri, M. Kölber, I. Ember, A. Bertaccini
- P 49 Genetic diversity among Bois noir phytoplasma populations in Italy: new 16Sr subgroups and distinct SNP genetic lineages**
Quaglino F., Y. Zhao, P.A. Bianco, W. Wei, G. Romanazzi, S. Murolo, P. Casati, G. Durante, R.E. Davis
- P 50 Preliminary results on the variability of Bois noir isolates in a vineyard system in Sicily**
Tessitori M., C. Oliveri, F. Veratti, V. Cavalieri, R. La Rosa, C. Marzachi'
- P 51 Incidence of Bois noir phytoplasma in different viticulture regions of Spain and stolbur isolates distribution in plants and vectors**
Batlle A., J. Sabaté, A. Laviña
- P 52 Photosynthesis and transpiration in grapevines affected by Bois noir and recovered**
Murolo S., G. Romanazzi, D. Neri

- P 53 Abiotic stress and treatment with elicitors for the control of Bois noir in Chardonnay vineyards**
Romanazzi G., S. Murolo, A. Masciulli, D. D'Ascenzo, V.A. Prota, R. Garau
- P 54 Reaction of different grapevine varieties to summer pruning measures for combating Bois noir**
Ipach U., E. Müller, L. Kling, B. Helmstätter
- P 55 Can pruning measures combat bois noir disease of grapevine ?**
Riedle-Bauer M., K. Hanak, F. Regner, W. Tiefenbrunner
- P 56 *Anaceratagallia ribauti* (Oss., 1938) (Hemiptera, Auchenorrhyncha, Agalliinae) transmits a stolbur type phytoplasma**
Riedle-Bauer M., A. Sára
- P 57 Vector-phytoplasma relationships during natural infection of *Hyalesthes obsoletus*, *Euscelis lineolatus*, *Neoliturus fenestratus* and *Psammotettix alienus* captured in vineyard agro-ecosystems in the Marche region (Central-Eastern Italy)**
Landi L., N. Isidoro, P. Riolo
- P 58 Further data on occurrence of grapevine yellows-associated phytoplasmas in vineyards of Veneto region (north-eastern Italy)**
Quaglino F., N. Mori, P. Casati, A. Zorloni, G. Zanini, P.A. Bianco
- P 59 Survey of phytoplasma diversity in heavily grapevine yellows affected areas of Croatia**
Šeruga Musić M., D. Škorić, Ž. Budinščak, I. Križanac, I. Mikec
- P 60 Identification of stolbur-related phytoplasmas in grapevine showing decline symptoms in Iran**
Karimi M., N. Contaldo, B. Mahmoudi, B. Duduk, A. Bertaccini
- P 61 New high incidence of Australian grapevine yellows and evidence on pathogenesis following natural heat therapy in severely infected South Australian vineyards**
Magarey P.A., N. Habili, J. Altmann, J.D. Prosser

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- P 62 Vacuum-agroinfiltration of different *V. vinifera* cultivars and application of VIGs in the cv. Sultana**
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Topic VII - Virus effects – Control – Crop performances

- P 63 Detection and elimination of *grapevine fanleaf virus* in callus, somatic embryos and regenerated plantlets of grapevine**
Gambino G., R. Vallania, I. Gribaudo
- P 64 Virus elimination in infected clones of four Greek grapevine wine cultivars (Roditis, Xinomavro, Baftra and savatIano) using *in vitro* thermotherapy and tip meristem culture**
Grammatikaki G., A. Avgelis
- P 65 Virus effects on vine growth and fruit components of three California 'heritage' clones of Cabernet Sauvignon**
Golino D.A., J. Wolpert, S.T. Sim, J. Benz, M. Anderson, A. Rowhani
- P 66 Virus effects on vine growth and fruit components of Cabernet Sauvignon on six rootstocks**
Golino D.A., J. Wolpert, S.T. Sim, J. Benz, M. Anderson, A. Rowhani

- P 67 Comparative study of *in vitro* behaviour of grapevine (*V. vinifera* L, Fetească neagră cv.) under the influence of various virus infections**
Guță I.C., E-C. Buciumeanu, E. Vișoiu
- P 68 A study on LN33 grapevine infected with five viruses**
Komínek P., M. Komínková
- P 69 Effect of *Grapevine fanleaf virus* (GFLV) and *Grapevine leafroll-associated virus 3* (GLRaV-3) on red wine quality**
Legorburu F.J., E. Recio, E. López, J. Baigorri, M. Larreina, A. Remesal, J.F. Cibrián, L. Caminero, J. Suberviola, F. Aguirrezábal
- P 70 Leafroll symptoms caused by GLRaV-3 are associated with an increase of resveratrol in grapevine leaves**
Bertazzon N., O. Repetto, M. De Rosso, R. Flamini, E. Angelini, M. Borgo
- P 71 Effects of *gva* elimination on physiological, agronomic and oenological characteristics of a *V. vinifera* Marzemino clone**
Malossini U., L. Zulini, A. Vecchione, E. Decarli, P. Bianchedi, R. Moscon, G. Nicolini
- P 72 Effects of GLRaV-1 elimination on physiological, agronomic and oenological characteristics of two cv. Marzemino clones**
Malossini U., L. Zulini, G. Nicolini, A. Vecchione, E. Decarli, P. Bianchedi, R. Moscon
- P 73 Control of grape berry mechanical properties modifications due to GFLV by mean of texture analysis**
Santini D., L. Rolle, F. Mannini
- P 74 2-amino-6-mercaptapurine: a preliminary study of a novel chemical group for grapevine antiviral therapy**
Luvisi A., A. Panattoni, E. Triolo
- P 75 Advances on the eradication of *Grapevine rupestris stem pitting associated virus* (GRSPaV) from *Vitis vinifera* explants**
Skiada F., V.I. Maliogka, E.P. Eleftheriou, N.I. Katis

Topic VIII Viruses of the leafroll complex

- P 76 A real-time RT-PCR assay for the detection and quantification of *Grapevine leafroll-associated virus 3* (GLRaV-3) in *Vitis vinifera* L. (Vitaceae) and *Planococcus ficus* (Signoret) (Hemiptera: Pseudococcidae)**
Douglas N., G. Pietersen, K. Krüger
- P 77 Advances in molecular detection of GLRaV-1**
Bertazzon N., I. Bazzo, O. Repetto, M. Borgo, E. Angelini
- P 78 Development of an ELISA for the simultaneous detection of *Grapevine leafroll-associated virus 4, 5, 6, 7 and 9***
Besse S., W. Bitterlin, P. Gugerli
- P 79 Serological and molecular characterisation of *Grapevine leafroll-associated virus 2* variants occurring in Switzerland**
Besse S., C. Balmelli, V. Hofstetter, P. Gugerli
- P 80 Serological detection of *Grapevine leafroll associated viruses 1, 2 and 3***
Cabaleiro C., A.M. Pesqueira, J.R. Pan, I. Cortez
- P 81 Serological relationships between grapevine infecting ampelovirus from Argentina**
Gómez Talquenca S., M. Lanza Volpe, C. Muñoz
- P 82 Detection of leafroll GLRaV-1, 2 and 3 on grapevine rootstocks varieties**
Beccavin I., M. Beuve, O. Lemaire, S. Grenan
- P 83 Partial molecular characterization of *Grapevine leafroll associated virus-1* isolate from Iran**
Roumi V., A.R. Afsharifar, K. Izadpanah

- P 84 Genetic diversity of Portuguese isolates of *Grapevine leafroll-associated virus 1* (GLRaV-1) based on the capsid protein**
Esteves F., M. Teixeira Santos, M. De Lurdes Rocha, J.E. Eiras-Dias, F. Fonseca
- P 85 Genetic variability of *Grapevine leafroll-associated virus 2* (GLRaV-2) in a Portuguese vineyard, based on the HSP70h and capsid protein genes**
Esteves F., M. Teixeira Santos, M. De Lurdes Rocha, J.E. Eiras-Dias, F. Fonseca
- P 86 RFLP analysis of RT-PCR products to evaluate the genetic variability of CP ORF in GLRaV-2 isolates**
Lanza Volpe M., O. Gracia, S. Gómez Talquenca
- P 87 Assessment of GLRaV-3 variants occurring in Portuguese grapevine varieties according to the coat protein gene**
Gouveia P., F. Esteves, M. Teixeira Santos, F. Fonseca, J.E. Eiras-Dias, G. Nolasco
- P 88 Grapevine leafroll disease in *Vitis vinifera* cv Mencía**
Pesqueira A.M., R. González-Rodríguez, C. Cabaleiro
- P 89 Further data on the sensitivity of different rootstocks to the graft incompatibility associated with GLRaV-2 infection**
Pirolo C., D. Boscia, P. La Notte, A. Cardone, G.P. Martelli
- P 90 Acquisition and transmission of GLRaV-1 (*Grapevine leafroll associated ampelovirus 1*) by *Planococcus citri* (Risso) (Hemiptera: Pseudococcidae)**
Scotto C., B. Conti, A. Panattoni, E. Triolo

Topic IX – Rugose wood complex

- P 91 Biological, serological and molecular characterization of *Grapevine virus A* isolates infecting vines in the Marche region, Central-Eastern Italy**
Murolo S., D. Boscia, G. Romanazzi, V. Savino
- P 92 A novel vitivirus, *Grapevine virus E***
Nakaune R., S. Toda, M. Mochizuki, M. Nakano

Topic X – Diseases of unclear etiology

- P 93 Preliminary investigations on a Syrah decline in Central Italy**
Bianco P.A., A. Zorloni, C. De Biasi, G. Belli
- P 94 Shiraz disease and grapevine yellows in South Africa**
Pietersen G., T. Oosthuizen, E. Jooste, L. Filippin, N. Bertazzon, E. Angelini
- P 95 Syrah decline: no evidence for viroid etiology**
Renault-Spilmont A-S., L. Bernard, P. Serra, N. Duran-Vila
- P 96 Identification and partial characterization of grapevine viroids in Southern Iran**
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(* Posters will be removed on Wednesday 2 Sept at 19.00 (7.00 pm).

Authors are kindly requested to stand by their posters during breaks and poster sessions.

Delegates are invited to assiduous visits and discussions.