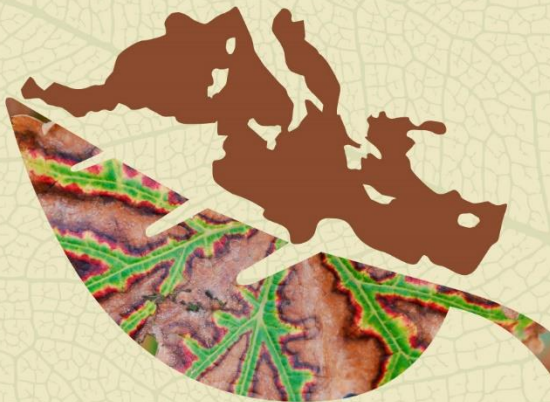




15<sup>TH</sup> CONGRESS OF  
THE MEDITERRANEAN  
PHYTOPATHOLOGICAL UNION

PLANT HEALTH  
SUSTAINING  
MEDITERRANEAN  
ECOSYSTEMS



20,21,22,23 JUNE 2017  
CORDOBA, SPAIN  
[MPUCORDOBA.MPUNION.EU](http://MPUCORDOBA.MPUNION.EU)

**PROGRAMME**

## June 20,2017

08:00 - 11:00 Registration

09:00 - 09:15 Welcome Address

09:15 - 11:15 Plenary session 1. Main Rectorate Conference Hall

**Invasive pathogens and new emerging plant diseases**

**Chairs:** Sophien Kamoun, Donato Boscia

09:15-09:45 **Olive quick decline and *Xylella fastidiosa* in Southern Italy: the state of the art**

Donato Boscia. *Institute for Sustainable Plant Protection CNR.Bari Italy*

09:45-10:15 **Plant Pathology in the Genomics Era**

Sophien Kamoun. *The Sainsbury Laboratory, Norwich Research Park, United Kingdom*

10:15-11:15 **Oral Plenary 1**

**O.1 Establishment potential of citrus black spot, caused by *Phyllosticta citricarpa*, in Mediterranean environments.** J. MARTÍNEZ-MINAYA, D. CONESA, A. LÓPEZ-QUÍLEZ and A. VICENT

**O.2 Advances on the study of emerging Southern tomato virus infecting tomato crops in Mediterranean basin.** L. ELVIRA-GONZÁLEZ, C. CARPINO, A.V. PUCHADES, A. ALFARO-FERNÁNDEZ , M.I. FONT-SAN AMBROSIO, L. RUBIO and L. GALIPIENSO.

**O.3. Development of new potato varieties with late blight and potato cyst nematode resistance, reduced bruising and improved processing quality.** M. PAIS, K. WITEK, L. TOMLINSON, A. WITEK, F. JUPE, M. SMOKER, S. PERKINS, S. MARILLONNET, P. E. URWIN, N. CHAMPOURET, C. RICHAEL, J. D. G. JONES.

**O.4 Screening of European potato varieties for resistance to pathotype 18(T1) of *Synchytrium endobioticum* (Schilb.) Perc. in Greece.** I. VLOUTOGLOU, K.B. SIMOGLU, H. ELEFThERiADIS, D. TSIROGIANNIS, C. KRITIKOS, I. SARIGKOLI, N. NIKOLAIDIS, A. KOTZAMPIGIKIS, A. THEOCHARIS, M. KONSTADINIDOU, C. ARAMPATZIS, I. KAGIAS and D. GKILPATHI.

11:15-11:45 **Coffee break**

11:45- 13:45 Plenary session 2. Main Rectorate Conference Hall

**Genome analysis: applications to plant health**

**Chairs:** David Guttman, Li-Jun Ma

11:45-12:15 ***Fusarium* pathogenomics: understanding fungal pathogenicity through genomics**

Li-Jun Ma. *University of Massachusetts Amherst, USA*

- 12:15-12:45 **Understand Host Specificity via Comparative Genomics**  
David Guttman *University of Toronto, Toronto, Canada*
- 12:45-13:45 **Oral Plenary 2**  
**O.5 Experimental evolution in the fungal pathogen *Fusarium oxysporum* to study mechanisms of genome plasticity and host adaptation.** C. LÓPEZ-DÍAZ, D. HAZAL AYHAN, J. J. GINÉS-RIVAS, I. OKEKE-INFANTE, LI-JUN MA, A. DI PIETRO .  
**O.6 Genome size variability across fungi and the occurrence of very large genomes among rust fungi.** P. TALHINHAS, A.P. RAMOS, S. TAVARES, M.C. SILVA, J. LOUREIRO and M. COELHO.  
**O.7 UV damage repair in the *Fusarium* species complex**  
S. MILO-COCHAVI and S. COVO.  
**O.8 Characterization of Mating type genes of *Alternaria alternata* isolated from Onion.** WUBETU BIHON & LAWRENCE KENYON
- 14:00 -15.00 **Lunch at Rectorate Canteen**
- 15.00 -16:30 **Poster session. Main Rectorate Conference Hall**
- 16:30 -18:30 **Concurrent session 1. Main Rectorate Conference Hall**  
**Integrated Disease Management**  
**Chairs:** Antonio Logrieco, Ilaria Pertot
- 16.30-17.00 **Will climate change affect IPM in the Mediterranean environment?**  
Ilaria Pertot. *University of Trento/Fondazione Edmund Mach Trento, Italy*
- 17:00-18:30 **Oral Concurrent 1**  
**O.9 The development of the root-knot nematode disease in zucchini and associated yield losses.** S. VERDEJO-LUCAS, M. TALAVERA and A. PÉREZ-DE-LUQUE.  
**O.10 Meta-Analysis of the effect of the application period in the management of Botrytis bunch rot in vineyards.** G. FEDELE, E. GONZÁLEZ-DOMÍNGUEZ, L. DELIÈRE, P. SAURIS, E. DÍAZ-LOSADA, J.L. RAMOS SÁEZ DE OJER, D. GRAMAJE and V. ROSSI  
**O.11 Copper: a basic active ingredient in the control of olive diseases.** L.F. ROCA, J.R. VIRUEGA, A. ÁVILA, J. MORAL, F. MARCHAL, J. ROMERO, P. MIRANDA, C. AGUSTÍ-BRISACH, A. TRAPERO.  
**O.12 Defence responses to nematodes and viruses induced by treatments with ozone in tomato.** M.I. PRIGIGALLO, P. VERONICO, F. CILLO, M.T. MELILLO, N. SASANELLI, G. BUBICI.  
**O.13 Early assessment of late wilt of maize caused by *Harpophora maydis* and the control effect of extracts of *Lycium europaeum* L.** C. RODRÍGUEZ-MALLOL, R. TEJ, and L. MOLINERO-RUIZ.

**O.14 Maternal and paternal effects on the heritability of Verticillium wilt resistance in olive progenies.** P. VALVERDE\*, C. TRAPERO, D. BARRANCO, C. M. DÍEZ, FCO. J. LÓPEZ ESCUDERO.

**16:30 -18:30 Concurrent session 2. 'Salón Mudejar' Conference Hall**

**Invasive pathogens and new emerging plant diseases II**

**Chairs:** Antonio Trapero Casas, Alberto Santini

**16.30-17.00 Forest Pathogen Invasion: Pathways, Surveillance and Early Detection**

Alberto Santini *National Research Council, Institute for Sustainable Plant Protection, Italy.*

**17:00-18:30 Oral Concurrent 2**

**O.15 Is *Calonectria pauciramosa* established in Portugal? Occurrence in ornamental nurseries and in public gardens.** A.P. RAMOS, T. VALADA, F. MAIA, B. FERREIRA, M.F. CAETANO and A. LIMA.

**O.16 Spread of Tomato leaf curl New Delhi virus in Italy: a new challenge for the cultivation of zucchini squash.** W. DAVINO, M. LUIGI, S. BERTIN, S. PANNO, A. CARUSO, E. TROIANO, L. OTGIANU, M. NANNINI, G. PARRELLA, L. TOMASSOLI

**O.17 Deciphering copper resistance in *Xanthomonas citri* pv. *citri*.** D. RICHARD, V. RAVIGNÉ, A. RIEUX, B. FACON, C. BOYER, K. BOYER, P. GRYGIEL, S. JAVEGNY, M. TERVILLE, B. I. CANTEROS, I. ROBÈNE, C. VERNIÈRE, A. CHABIRAND, O. PRUVOST and P. LEFEUVRE

**O.18 Is *Xanthomonas citri* subsp. *citri* (*Xcc*) knocking at the doors of the Mediterranean basin?** P. CARUSO, R. PAVONE, C. LICCIARDELLO, M.P. RUSSO, V. CATARA, G. LICCIARDELLO, O. PRUVOST, I. ROBENE, J. CUBERO, C. REDONDO, Y. AYSAN, R. CETINKAYA-YILDIZ, S. HORUZ, A. URSO and G. TIMPANARO

**O.19 *Phytophthora capsici* emerging simultaneously in different greenhouse crops in Southeast Spain.** M. DE CARA-GARCÍA, A.M. AGUILERA-LIROLA, A. PÉREZ-HERNÁNDEZ, I. ESPITIA-VÁZQUEZ, J.M. GÓMEZ-VÁZQUEZ

**O.20 Assessment of the host status of ornamental rutaceous species to *Xanthomonas citri* pathovars causing Citrus Bacterial Canker.** G. LICCIARDELLO, O. PROUVOST, I. ROUBENE, J. CUBERO, C. REDONDO, A. CARUSO, C. LICCIARDELLO, P. CARUSO, V. CATARA

**21.00 - 23:00 Visit and Welcome drink at 'Caballerizas Reales'**

**June 21, 2017**

- 09:00 -11:00 Plenary session 3. Main Rectorate Conference Hall**  
**Plant pathology and food safety**  
**Chairs:** Dov Prusky, Dimitris Tsitsigiannis
- 09:00-09:30 **Integrated management strategies for prevention and control of mycotoxins**  
Dimitris Tsitsigiannis. *Agricultural University of Athens , Athens, Greece*
- 09:30-10:00 **Carbon regulation of environmental pH by secreted small molecules that modulate pathogenicity in phytopathogenic fungi.**  
Dov Prusky. *Agricultural Research Organization, The Volcani Center, Rishon leTzion, Israel*
- 10:00-11:00 **Oral Plenary 3**  
**O.21 Identification and characterization of *Acidovorax citrulli* strains from Serbia.** N. ZLATKOVIĆ, A. PROKIĆ, K. GAŠIĆ, N. KUZMANOVIĆ, M. IVANOVIĆ, Ž. PAVLOVIĆ, A. OBRADOVIĆ.
- O.22 Screening of mycotoxin profile and mycotoxin gene clusters in toxigenic fungi pathogens of food crop plants reveals both phenotypic and genetic variability at intraspecific level.** A. SUSCA, A. LOGRIECO, M. HAIDUKOWSKI, A. VILLANI, and A. MORETTI.
- O.23 Effects of the coinfection of *Pepino mosaic virus* (PepMV) and *Southern tomato virus* (STV) on tomato plants.** SANAHUJA, E. , ALFARO-FERNÁNDEZ, A., ELVIRA, L. , PUCHADES, A., ALFARO-FERNÁNDEZ, P., GALIPIENSO, L., FONT-SAN-AMBROSIO, M.I.
- O.24 Comparison of microbial quality of lettuce grown under three distinct crop systems in Cyprus.** C. MENELAOS CHRISTODOULOU, E. SAVVA, D. TSALTAS
- 11:00-11:45 Coffee break**
- 11:45-13:45 Plenary session 4.**  
**Molecular pathogen-host interactions**  
**Chairs:** James Alfano, Bruce McDonald
- 11:45-12:15 **Using population genomics to identify genes affecting pathogen adaptation**  
Bruce McDonald. *ETH Zurich, Zurich, Switzerland*
- 12:15-12:45 ***Pseudomonas syringae* pathogenesis of plants: Effectors and immunity**  
James Alfano. *University of Nebraska, Lincoln, USA*
- 12:45-13:45 **Oral Plenary 4**  
**O.25 Identification of new parasitism proteins of the pinewood nematode, *Bursaphelenchus xylophilus*.** M. ESPADA, S. EVES-VAN DEN

AKKER, P.J.A. COCK, M. MOTA and J.T. JONES

**O.26 Chlorophyll degradation pathway is linked to stomatal and photosynthetic dysfunctions observed in oats resistant to powdery mildew.** G. MONTILLA-BASCÓN, M. ROCA, L.A.J. MUR, PRATS E.

**O.27 Implications of mixed infections on the evolutionary dynamics of *Pepino Mosaic Virus (PepMV)* in tomato crops.** C.ALCAIDE, C. GÓMEZ-AIX, M. JUÁREZ, M.A. SÁNCHEZ-PINA, M.A. ARANDA, P. GÓMEZ

**O.28 Genomic screens to identify next-generation MAMPs and their cognate pattern recognition receptors.** A. G. MOTT, S. THAKUR, E. SMAKOWSKA, P. W. WANG, Y. BELKHADIR, D. S. GUTTMAN, D. DESVEAUX

**14:00 -15:00 Lunch at Rectorate Canteen**

**15:00 -16:30 Poster session. Main Rectorate Conference Hall**

**16:30 -18:30 Concurrent session 3. Main Rectorate Conference Hall**  
**Biocontrol, natural compounds and plant defense stimulants**  
**Chairs:** Giovanni Vannacci, Matteo Lorito

**16:30-17:00 New bio-inspired treatments derived from microbiome and metabolome study**

Matteo Lorito. *University of Naples, Naples, Italy*

**17:00-18:30 Oral Concurrent 3**

**O.29 Characteristics of the biocontrol rhizobacterium *Pseudomonas chlororaphis* PCL1606.** S. TIENDA, C. VIDA, A. DE VICENTE, and F.M. CAZORLA.

**O.30 Biological characterisation of *Pochonia chlamydosporia* isolates associated with root-knot nematodes** J. HORTA, I. ABRANTES and I.L. CONCEIÇÃO

**O.31 The efficacy of plant-derived protein hydrolysates against zucchini powdery mildew is affected by their biochemical characteristics.** M. CAPPELLETTI, M. PERAZZOLLI, A. NESLER, O. GIOVANNINI and I. PERTOT

**O.32 *Geosmithia* spp. and *Ophiostoma novo-ulmi* a new fungus-fungus association mediated by Elm bark beetles.** ALESSIA L. PEPORI; ALBERTO SANTINI

**O.33 Endo- and epiphytic fungal communities of olive twigs is influenced by cultivar and Olive Knot infection** T. GOMES, J. A. PEREIRA, T. LINO-NETO, A. BENNET, P. BAPTISTA.

**O.34 Constitutive secretion of pisatin in root exudates participates in pea defence against *Fusarium oxysporum* f. sp. *pisii*.** N. RISPAIL, M. BANI, A. CIMMINO, A. EVIDENTE and D. RUBIALES.

**16:30 -18:30 Concurrent session 4. 'Salón Mudejar' Conference Hall**  
**Innovative approaches in plant disease diagnosis and management**  
**Chairs:** Darrell Desveaux, Diego Rubiales

- 16:30-17:00 **Can we breed for durable disease resistance in pea and faba bean?: The cases of broomrapes and powdery mildews**  
Diego Rubiales. *Institute for Sustainable Agriculture-CSIC, Córdoba, Spain.*
- 17.00-18.30 **Oral Concurrent 4**
- O.35 Establishment of specific molecular diagnostic tests for *Gnomoniopsis smithogilvyi* (syn. *castanea*) and *Cryphonectria parasitica*.** M. CONTI, J. CROVADORE, B. COCHARD, R. CHABLAIS, J. B. MEYER M. JERMINI and F. LEFORT
- O.36 Does resistance to *Plasmopara viticola* in grapevine influence infectivity of sporangia?** F. BOVE, T. CAFFI, V. ROSSI.
- O.37 Development of  $\Delta\Delta$ ct Real Time RT-qPCR for the detection of *Onion yellow dwarf virus*.** A. TIBERINI<sup>1</sup>, R. MANGANO, S. B. GRANDE, L. TOMASSOLI, G. ALBANESE.
- O.38 Cytogenomic analyses reveal nuclear content variation along the life cycles of the Pucciniales (rust fungi).** T. RIBEIRO, S. TAVARES, A.P. RAMOS, M. MONTEIRO, M COELHO, M.C. SILVA, J. LOUREIRO, L. MORAIS-CECÍLIO and P. TALHINHAS
- O.39 A diagnostic microarray for the multiplex characterization of strains of the *Ralstonia solanacearum* species complex.** G. CELLIER, S. ARRIBAT, F. CHIROLEU, P. PRIOR, and I. ROBENE.
- O.40 Selection of genetic variants of *Citrus tristeza virus* as a strategy to protect against severe seedling yellow strains.** G. SCUDERI, R. FERRARO, M. RUSSO, M. C. BAZZANO, A. CATARA and G. LICCIARDELLO
- 19:00 -20:00 **Night visit Mezquita de Córdoba and free dinner**

**June 22, 2017**

- 09:00 -11:00 Plenary session 5. Main Rectorate Conference Hall**  
**Epidemiology and modeling**  
**Chairs:** Vittorio Rossi, Serge Savary
- 09:00-09:30 **Plant disease epidemiology and food security**  
Serge Savary, *INRA, Toulouse, France.*
- 09:30-10:00 **Role of epidemiological models in decision making for crop protection**  
Vittorio Rossi *DIPROVES, Università cattolica del Sacro Cuore, Piacenza, Italy*
- 10:00-11:00 **Oral Plenary 5**  
**O.41 Modelling yield losses caused by multiple wheat diseases in France.** L. WILLOCQUET, S. SAVARY.  
**O.42 Identification of TYLCD-associated begomoviruses and ToLCNDV-ES co-infections in Spain.** A. SIMON, L. RUIZ, C. GARCÍA and D. JANSSEN  
**O.43 Viral diseases affecting chickpea crop in Uzbekistan.** S.G. KUMARI, Z. ZIYAEV and S.D.A. KEMAL.  
**O.44 Ecological succession of pathogenic fungi of Pines in Italy associated with climate change.** L. GHELARDINI, P. CAPRETTI , L. BOTELLA, C. AGLIETTI , N. LUCHI
- 11:00-11:45 Coffee break**
- 11:45- 13:45 Plenary session 6.**  
**Microbiomes and their role in plant health**  
**Chairs:** Jos Raaijmakers, Paola Bonfante
- 11:45-12:15 **The plant microbiota: Mycorrhizal fungi and all the others**  
Paola Bonfante. *University of Torino, Italy*
- 12:15-12:45 **The Plant Microbiome: beyond collecting stamps**  
Jos Raaijmakers *NIOO-KNAW, Wageningen; Leiden University, Leiden, The Netherlands*
- 12:45:13:45 **Oral Plenary 6**  
**O.45 New *Pseudomonas* spp. strains from the olive rhizosphere as effective biocontrol agents against *Verticillium dahliae*.** C. GÓMEZ-LAMA CABANÁS, G. LEGARDA, D. RUANO-ROSA, P. PIZARRO-TOBÍAS, A. VALVERDE CORREDOR, J. L. NIQUI, J. C. TRIVIÑO, A. ROCA and J. MERCADO-BLANCO.  
**O.46 New bacterial antagonists for the Biocontrol of Fire Blight Disease Caused by *Erwinia amylovora*.** S. AIT BAHADOU , A. OUIJJA , A. KARFACH , A. TAHIRI  
**O.47 Qualitative and quantitative impact of *Bactrocera oleae* on the fungal microbiota of ripe olive drupes.** D. RUANO-ROSA, A. ABDELFATTAH, M.G. LI DESTRI NICOSIA, S.O. CACCIOLA, G.E. AGOSTEO and L. SCHENA.



**O.48 Dynamics of fungal endophytes over different phenological stages of the olive tree host.** F. MARTINS, J.A. PEREIRA and P. BAPTISTA

**14:00 -15.00** Lunch at Rectorate Canteen

**15:00 -16.30** Poster session. *Main Rectorate Conference Hall*

**16:30 -18:30** Concurrent session 5. *Main Rectorate Conference Hall*

***Xylella fastidiosa* research in Europe**

**Chairs:** Blanca B. Landa, Juan A. Navas-Cortés

**16:30-17:00** Innovative Remote sensing and species distribution modeling approaches to detect and predict the potential spread of *Xylella fastidiosa*

Juan A. Navas-Cortés. *Institute for Sustainable Agriculture (CSIC), Córdoba, Spain*

**17.00-18:30** Oral Concurrent 5

**O.49** Natural competence and recombination *in vitro* occurs frequently among *Xylella fastidiosa* isolates from subsp. *fastidiosa* and *multiplex*.

P.P. KANDEL, L. DE LA FUENTE

**O.50** Photointerpretation of high resolution aerial images for large scale monitoring in Apulia of the Olive Quick Decline Syndrome (OQDS) associated to *Xylella fastidiosa*. S. GUALANO, F. SANTORO, F. VALENTINI, A.M. D'ONGHIA.

**O.51** Genetic diversity of *Xylella fastidiosa* assessed in imported ornamental *Coffea arabica* plants. M. BERGSMÁ-VLAMI\*, J.L.J. VAN DE BILT, N.N.A. TJOU-TAM-SIN, C.M. HELDERMAN, P.P.M.A. GORKINK-SMITS, N.M. LANDMAN, J.G.W. VAN NIEUWBURG, E.J. VAN VEEN and M. WESTENBERG.

**O.52** Fast and sensitive detection for *Xylella fastidiosa* through recombinase polymerase amplification. R. LI, P. RUSSELL, S. ZHANG, B. DAVENPORT, A. EADS, K. SCHUETZ, S. BERKANI, M. AMATO.

**O.53** Current situation in France regarding *Xylella fastidiosa*: methods of detection and subspecies characterization, strains and host plants diversity. F. POLIAKOFF, B. LEGENDRE, V. OLIVIER, C. DOUSSET, S. PAILLARD, D. MOLUSSON, A. SAINTE- LUCE, V. JUTEAU, N. DENANCE, M.A. JACQUES

**O.54** Flashdiag®XF Kit, a quick field diagnostic tool for detection of *Xylella fastidiosa*. T. VANDEWALLE, K. OULDELKABLA, C. FABRE, G. LOCONSOLE and M. MASSON

**16:30 -18:30** Concurrent session 6. *'Salón Mudejar' Conference Hall*

***Wood, root and foliar diseases in fruit and forest crops in the Mediterranean area***

**Chairs:** María Esperanza Sánchez Hernández, Laura Mugnai

- 16:30-17:00 **Grapevine trunk diseases: a need for clarity in concepts and definitions**  
*Laura Mugnai, University of Florence, Italy*
- 17:00-18:30 **Oral Concurrent 6**
- O.55 Pine wilt disease: insights into the biology of *Bursaphelenchus xylophilus*-associated *Serratia*.** C. S. L. VICENTE<sup>1</sup>, K. HASEGAWA<sup>2</sup>, M. MOTA<sup>1</sup>.
- O.56 Comparative study of *Pseudomonas syringae* pv. *syringae* strains isolated from mango trees distributed worldwide with over 25 years apart.** F. APRILE, J.A. GUTIERREZ-BARRANQUERO, F.M. CAZORLA, and A. DE VICENTE
- O.57 Survey of *Cylindrocarpon*-like anamorphs in Spanish forest nurseries.** B. MORA-SALA, A. CABRAL, M. LEÓN, C. AGUSTÍ-BRISACH, J. ARMENGOL, and P. ABAD-CAMPOS.
- O.58 Simulation of the potential range infectivity of *Phytophthora cinnamomi* under climate change.** M.C. CABALLERO, I.M. PÉREZ-RAMOS, L. MATÍAS and M. SERRANO
- O.59 Increasing diversity of vegetative compatibility types in *Cryphonectria parasitica* in the Eastern Black Sea Region of Turkey and its relation to sexual reproduction.** E. MANGİL<sup>1</sup> and O. ERİNCİK<sup>1</sup>
- O.60 Phenotypic, molecular and pathogenic characterization of *Phlyctema vagabunda*, causal agent of olive leprosy.** J. ROMERO<sup>1</sup>, M.C. RAYA<sup>1</sup>, L.F. ROCA<sup>1</sup>, C. AGUSTI-BRISACH<sup>1</sup>, J. MORAL<sup>1,2</sup> and A. TRAPERO<sup>1</sup>
- 18:45- 20.30 **GENERAL ASSEMBLY OF MPU. Main Rectorate Conference Hall**
- 21.00 **Congress Dinner. Bodegas Campos Restaurant**

**June 23, 2017**

**Field trip**