

Program Overview

Satellite meeting of the [Euphresco ERA-Net](#) pilot project – [PhytFire](#)

*Phytosanitary diagnostic, on-site detection and epidemiology tools for *Erwinia amylovora**

Monday, July 1st (ETH Zürich, Campus Zentrum, LFW D12)

12.30-13.30: Welcome & Introductions with New Partner Presentations

PhytFire Project Labs: Switzerland, Austria, Germany, Spain, Portugal, Turkey, Ukraine, Russia ([Natalia Drenova](#) & Konstantin Kornev), Estonia ([Helena Lasner](#)), Lithuania ([Ilona Kibildiené](#))

New cooperators (supported by Swiss SNF grants):

Galiya Zharmukhamedova (Kazakhstan)	Lili Nacheva (Bulgaria)
Inga Moročko-Bičevska (Latvia)	Milan Ivanovic (Serbia)
Artur Mikiciński (Poland)	Joanna Puławska (Poland)
Piotr Sobiczewski (Poland)	Zahra Ghahremani (Iran)

13.30-14.00: Project Aims-Progress, Dissemination & Training Activities

[Ulrike Persen](#) (AGES, Vienna, Austria)

13.30-14.00: Detection Methods & Ring-Trials

[Maria López](#) (IVIA, Valencia, Spain)

[Ilona Kibildiené](#) (IVIA, Latvia) – SNF grantee

14.00-14.30: Flower Monitoring In Orchards

[Annette Wensing](#) (Julius-Kühn Institute, Dossenheim, Germany)

14.30-15.00: Vector Monitoring

[Helena Lasner](#) (Estonia) – SNF grantee

15:00-15:30: Coffee break

15:30-16:00: Asymptomatic Infections & Environmental Fitness

[Maria López](#) (IVIA, Valencia, Spain)

16:00-16:30: Pathogen Source Tracking

[Fabio Rezzonico](#) (ZHAW, Wädenswil, Switzerland) & [Andreas Bühlmann](#) (Agroscope, Wädenswil, Switzerland)

[Konstantin Kornev](#) & [Nataliya Drenova](#) (Moscow, Russia) – SNF grantee

16:30-17:00: Technology Transfer & Capacity Building Opportunities

[Hatice Ozaktan](#) (Ege University, Izmir, Turkey)

[Nursen Ustun](#) (Plant Protection Research Station, Bornova, Izmir)

17:00-18:00: Plan Collaborative Research & Scientist Exchange 2013-2015

All participants engaged

19.30-21.30: *PhytFire Networking Dinner*

Tuesday, July 2nd (ETH Zürich, Campus Zentrum, HG G60)

09.30-12.15: ProfiCrops Integrierte Programm Feuerbrand satellite meeting with Swiss stakeholders

German: http://www.fireblight2013.org/uploads/files/Flyer_ISHS_IP_Feuerbrand_D.pdf

French: http://www.fireblight2013.org/uploads/files/Flyer_ISHS_IP_Feuerbrand_F.pdf

ISHS Fire Blight 2013 (ETH Zürich, Campus Zentrum, HG E7)

Tuesday, July 2nd

09.00-12.30 Registration, poster set-up & meet-and-greet coffee

12.15-13.15 Stand-up lunch (together with ProfiCrops)

13.30 Welcome addresses

14.00-15.40 Keynote Session 1 (Chair: B. Duffy)

14.00 Key01 Fire blight: barriers to control in the past and present; future control strategies
Tim Smith (Washington State University, USA)

15.00 Key02 Addressing concerns surrounding antibiotic use for control of fire blight
Virginia Stockwell (Oregon State University, USA)

15.40-16.20 Coffee break (opportunity to view posters)

16.20-17.40 Keynote Session 2 (Chair: B. Duffy)

16.20 Key03 The biopesticide innovation chain: template for development of microbial agents from discovery to registration
Antonet Svircev (Agriculture & Agri-Food, Canada)

17:00 Key04 Host resistance to *Erwinia amylovora* – germplasm, breeding, genetics
Andreas Peil (Julius Kühn-Institut Dresden, Germany)

19.30-22.00 Social dinner – Bauschänzli Beer Garden, Zürich on the lake.

Wednesday, July 3rd

9.00-10.40 Phytosanitary Control Strategies (Chair: U. Persen & H. Ozaktan)

9.00 T01-01 Control of fire blight in Baden-Württemberg at the end of the streptomycin era
A. Fried, E. Schell, E. Moltmann, A. Wensing

9.20 T01-02 Fire blight control strategy in Belgium
H. Schoofs, T. Deckers, W. Verjans, K. Vrancken, R. Valcke

9.40 T01-03 Phytosanitary strategy against fire blight in Switzerland
H. Dreyer

13th ISHS International Fire Blight Workshop

10.00 T01-04 Distribution, characteristics and diagnostic methods for fire blight (*Erwinia amylovora*) in the Russian Federation
A. Kharchenko, A. Kuznetsova, M. Balandina, M. Erohova, J. Kulakova, N. Kvashnina, E. Shneider, N. Drenova

10.20 T01-05 Necrotrophic survival of *Erwinia amylovora* in apple leaf tissue
P. Sobiczewski, A. Mikiciński, A. Stębowska

10.40-11.10 Coffee break (opportunity to view posters)

11.10-12.40 Biological and Chemical Control 1 (Chair: G. McGhee & A. Svircev)

11.10 T02-01 Strategy for non-antibiotic fire blight control in U.S.-grown organic pome fruit
K.B. Johnson, T.N. Temple, R.B. Elkins, T.J. Smith

11.40 T02-02 Field results for the efficacy of fire blight control agents in the last 15 years in Germany
S. Kunz

12.00 T02-03 Development of antagonistic bacteria for field control of fire blight
C. Hübert, H. Junge, K. Dietel, A. Wensing, W. Jelkmann

12.20 T02-04 The strange case (reports) of Dr. *P. agglomerans* and Mr. *Enterobacter* sp.
F. Rezzonico, T.H.M. Smits, M. Tonolla, V. Pflüger, B. Duffy.

12.40-14.00 Lunch (opportunity to view posters)

14.00-15.30 Biological and Chemical Control 2 (Chair: K. Johnson & E. Montesinos)

14.00 T03-01 Prospects and limitations of synthetic antimicrobial peptides for fire blight control
E. Badosa, L. Montesinos, L. Feliu, M. Planas, E. Bardají, E. Montesinos

14.30 T03-02 Gram-positive bacteria producing antimicrobial peptides as efficient biocontrol agents of fire blight
A. Bonaterra, J. Cabrefiga, I. Mora, G. Roselló, J. Francés, E. Montesinos

14.50 T03-03 Sensitivity of *Erwinia amylovora* in Illinois apple orchards to antibiotics and copper
A.G. Jurgens, M. Babadoost

15.10 T03-04 How does *Erwinia amylovora* face up to stress by copper?
B. Águila-Clares, E. Marco-Noales, M.M. López, G.W. Sundin

15.30-16.00 Coffee break (opportunity to view posters)

16.00-17.30 Epidemiology and Decision Support Systems (Chair: V. Pflüger & M. López)

16.00 T04-01 Use of real-time PCR for *Erwinia amylovora* detection during bloom and potential for integration in fire blight disease forecast in Québec
V. Phillion, A. Fortin, D. Leclerc, V. Joubert, M.-O. Duceppe, V. Toussaint, B. Mimee

16.30 T04-02 Use of loop-mediated isothermal amplification of *Erwinia amylovora* DNA to monitor efficacy of inoculum sanitation for fire blight suppression
T.N. Temple, R.B. Elkins, K.B. Johnson

13th ISHS International Fire Blight Workshop

- 16.50 T04-03 Bacteria commonly isolated from the phyllosphere of fire blight-susceptible hosts in Australia
R. Mann, K. Plummer, B. Rodoni
- 17.10 T04-04 Real-time and conventional PCR allow detection of *Erwinia piriflorinigra*s, a new pathogenic species causing necrosis of pear blossoms and its distinction from the fire blight pathogen, *Erwinia amylovora*
S. Barbé, E. Bertolini, M. Roselló, P. Llop, M.M. López

17.30-19.30 Poster Session & wine-cheese-chocolate social

Thursday, July 4th

9.00-10.30 Pathogen Genetics and Genomics 1 (Chair: F. Rezzonico & V. Stockwell)

- 9.00 T05-01 Small RNAs play big: role of bacterial small RNAs in regulating *Erwinia amylovora* pathogenesis
Q. Zeng, G.W. Sundin
- 9.30 T05-02 *Title t.b.d.*
B. Busch (Sponsor talk: GATC)
- 9.50 T05-03 Multidrug efflux in *Erwinia amylovora*
D. Pletzer, H. Weingart
- 10.10 T05-04 The role of *Erwinia amylovora* CRISPR/Cas system in resistance to phage infection
A. Yagubi, A.J. Castle, A.M. Svircev

10.30-11.00 Coffee break (opportunity to view posters)

11.00-12.40 Pathogen Genetics and Genomics 2 (Chair: J. Puławska & B. Rodoni)

- 11.00 T06-01 An alternative sigma factor cascade regulates expression of the type III secretion system in *Erwinia amylovora*
Y. Zhao, V. Ancona, W. Li, J.-H. Lee
- 11.20 T06-02 Investigating the molecular basis of fire blight by structural and functional genomics of *Erwinia amylovora*
S. Benini, J.D. Bartho, M. Salomone-Stagni, M. Toccafondi
- 11.40 T06-03 MALDI-TOF as tool to distinguish species in *Erwinia* and related genera
Pflüger V., Rezzonico F., Pothier J., Smits T.H.M., Duffy B.
- 12.00 T06-04 6-thioguanine biosynthesis of *Erwinia* species
A. Wensing, A. Beck, M. Gernold, S. Epple, R. Jansen, W. Jelkmann, K. Geider

12.30-13.10 ISHS Business Session – election of next meeting venue & discussion of the future framework for our group

13th ISHS International Fire Blight Workshop

13.10-14.10 Lunch (opportunity to view posters)

14.10-15.50 Plant-Microbe Interactions (Chair: J. Vanneste & R. Vögele)

- 14.10 T07-01 Biphenyls and dibenzofurans – fire blight-induced phytoalexins of apple and pear
C. Chizzali, B. Liu, K. Richter, H. Flachowsky, A. Peil, M.-V. Hanke, L. Beerhues
- 14.30 T07-02 Proteome investigation of the plant pathogen *Erwinia amylovora*
M. Holtappels, R. Valcke
- 14.50 T07-03 Differential transcriptome analysis of *Malus x robusta* 5 after inoculation with the virulent *Erwinia amylovora avrRpt2_{EA}* deletion strain ZYRKD3-1 and the non-virulent wild type strain Ea1189
I. Vogt, K. Richter, A. Dahl, M.-V. Hanke, H. Flachowsky, A. Peil
- 15.10 T07-04 Pathogenicity and infection strategies of the fire-blight pathogen *Erwinia amylovora* in *Rosaceae*: state of the art
K. Vrancken, M. Holtappels, H. Schoofs, T. Deckers, R. Valcke
- 15.30 T07-05 Cyclic di-GMP regulates the expression of virulence factors in *Erwinia amylovora*
L.F. Castiblanco, A.C. Edmunds, C.M. Waters, G.W. Sundin

16.00-22.00 Excursion to Agroscope (Wädenswil) and BBQ

Friday, July 5th

9.00-10.50 Germplasm Resources and Host Resistance Breeding (Chair A. Peil & P. Sobiczewski)

- 9.00 T08-01 Breeding for fire blight resistance and sterility in *Cotoneaster*
R. Contreras, J. Rothleutner, V.O. Stockwell
- 9.30 T08-02 Breeding high quality apples with fire blight resistance
M. Kellerhals, I.O. Baumgartner, L. Leumann, L. Lussi, A. Patocchi
- 9.50 T08-03 Overview of cultivar testing and pathogenesis of apple with respect to a tolerance against *Erwinia amylovora*
M. Joos, R. T. Vögele
- 10.10 T08-04 Fire blight resistance breeding for real customers
Markus Kobelt (Sponsor talk: Lubera AG)

10.40-11.20 Coffee break (opportunity to view posters)

13th ISHS International Fire Blight Workshop

11.20-12.40 Host Genetics and Genomics (Chair: M. Malnoy & R. Contreras)

- 11.20 T09-01 FB_MR5 is an apple gene providing resistance to fire blight
G.A.L. Broggini, Th. Kost, J. Fahrentrapp, A. Patocchi, Th. Wöhner, H. Flachowsky, A. Peil, M.-V. Hanke, C. Gessler
- 11.40 T09-02 Investigation on fire blight resistance in the cross population of 'Idared' x *Malus x robusta* 5 with different *Erwinia amylovora* strains
Th. Wöhner, K. Richter, M.-V. Hanke, G.A.L. Broggini, H. Flachowsky, A. Peil
- 12.00 T09-03 Accelerated introgression of fire blight resistance from *Malus x robusta* 5 and other wild germplasm into elite apple germplasm
I.O. Baumgartner, A. Patocchi, L. Lussi, A. Peil, M. Kellerhals
- 12.20 T09-04 Evidence of a major QTL for fire blight resistance in the apple wild species *Malus fusca*
O. Emeriewen, A. Kilian, M.-V. Hanke, M. Malnoy, A. Peil
- 12.40-13.00 Closing remarks & announcement of the host for the next International Fire Blight Meeting in 2016**
- 13.00 End of meeting**