Program

06.09.2022 (TUES)

8:00 – 09:00
Registration

9:00 – 09:25
Welcome, Opening addresses

09:25 – 10:50
Session 1 - Overview of fire blight and *Erwinia amylovora*
Chair – George Sundin

- **Keynote: Fire Blight - issues, challenges and future prospects** (45 mins)
- Joanna Pulawska
- **An app for apples: citizen-led mapping of fire blight in Central Asia** (20 mins)
  Mirjam Kurz, Werner Tischhauser, Tinatin Doolotkeldieva, Mariia Cherniavskaia, Bolot Tagaev, Ormon Sultangaziev, Jarkyn Samanchina, Theo HM Smits, Fabio Rezzonico
- **Annual *Erwinia amylovora* population dynamics in fire blight cankers and effect of pome fruit host and environmental factors on pathogen survival** (20 mins)
  Ricardo Delgado Santander, Fatemeh Khodadadi, Željko Rađenovic, Christopher L. Meredith, Jon Clements, Srđan G. Aćimović

10:50 – 11:15
Coffee Break

11:15 – 12:40
Session 2 - Fire blight disease management
Chairs: S. Tianna DuPont, Kenneth B. Johnson

- **Keynote: Insights into fire blight management** (45 mins)
  Kenneth B. Johnson
- **Control of pear shoot blight and fire blight cankers with Regalia and antibiotics** (20 mins)
  Srđan G. Aćimović, Christopher Meredith
- **New sustainable treatment against fire blight disease in pears using quorum-sensing disruption** (20 mins)
  Mery Dafny-Yelin, David Gurevich, Shlomit Dor, Mayan Erov, Yoav Dan, Jehudith Clara Moy, Orly Mairesse, Lihi Adler-Abramovich, Livnat Afriat-Jurnou
- **Evaluation of Fire Blight Removal Strategies** (20 mins)
  S. Tianna DuPont, Kerik Cox, Ken Johnson, Kari Peter, Misbakhul Munir, Aina Baro

12:40 – 13:45
Lunch

Posters will also be available for viewing during coffee breaks

13:45 – 15:15
Session 2 - Fire blight disease management
Chair: Joanna Pulawska

- **Evaluation of biopesticides for the control of *Erwinia amylovora* in Apple and Pear** (20 mins)
  S. Tianna DuPont, Kerik Cox, Ken Johnson, Kari Peter, Misbakhul Munir, Aina Baro
- **Field testing of fire blight control strategies in Switzerland** (20 mins)
  Perrine Gravalon, Sandrine Kammerecker, Vanessa Reininger, Sarah Perren, Eduard Holliger
- **Monitoring of *Erwinia amylovora* abundance in blossoms to support timing of control measures** (20 mins)
  Stefan Kunz, Monika Schwarz, Frederic Bartoli, Sarah Hornig-Schwabe, Malin Hinze, Maurice Schild, Armin Weiß, Sonja Weißhaupt
- **Computer Vision-based Deep Learning for Fire Blight Recognition** (20 mins)
  Yeonghyeon Gu, Helin Yin, Dong Jin, Ri Zheng, Ji-Min Lee

15:15 – 15:40
Coffee Break

15:40 – 16:40
Session 2 - Fire blight disease management
Chair: Perrine Gravalon

- **Fire blight management system in Korea** (20 mins)
  Yong Hwan Lee, Dong Suk Park, Hyeonheui Ham, Eunjung Roh, Se-Weon Lee, Hyeonseok Oh, Mi-Hyun Lee, Yeon-Jeong Lim, Mihyung Kang, Uiseok Chae
- **Fire blight control in Korea: the status of burial control** (20 mins)
  Seong Hwan Kim, Ye Eun Kim, Hyeong Jin Noh, In Hee Jung, Eun Kim
- **Possible mechanisms that reduce sensitivity of *Erwinia amylovora* against oxytetracycline** (20 mins)
  Jung Ho Choi, Dong Hyuk Choi, Duck Hwan Park

07.09.2022 (WED)

9:00 – 09:40
Session 2 - Fire blight disease management
Chair: Stefanie Reim

- **Novel biocontrol agent RejuAgro to control fire blight, citrus greening, and citrus canker** (20 mins)
  Yang, Ching-Hong, Yu, Manda, Huang, Jian
- **Development of a digital monitoring system for fire blight in fruit orchards** (20 mins)
  Virginia Maß, Michael Pflanz, Martin Geyer, Pendar Alirezazadeh, Eric Fritzsche, Stefanie Reim, Johannes Seidl-Schulz, Matthias Leipnitz

9:40 – 10:25
Session 3 - Phage research against *Erwinia amylovora* and Disease Management cont'd
Chairs: Duck Hwan Park, Timothy Jenkins

Posters will also be available for viewing during coffee breaks

- **Keynote: Status of research on phage-mediated control of *Erwinia amylovora*** (45 mins)
  Parcey M, Gayder S, Castle AJ, Svircev AM

10:25 – 10:50
Coffee Break

10:50 – 12:30
Session 3 - Phage research against *Erwinia amylovora* and Disease Management cont'd
Chairs: Duck Hwan Park, Timothy Jenkins

- **A qPCR-based, population dynamics approach for the development of a bacteriophage-based biopesticide** (20 mins)
  Gayder Steven, Sandrine Kammerecker, Kellen KG Gervásio, André Henriques, Gloria Torres-Cortés, Szilvia Kőrösiné Papp, Tamás Kovács, Krisztina Raffai, Sixto Cabezón Largas, Borja de Santo Prietos, Lars Fieseler
- **The effects of *Aureobasidium pullulans* formulations and acibenzolar-S-methyl on the incidence and severity of fire blight floral infections** (20 mins)
  Mary Horner, Caitlin Donahoe, Jayne Wilton, Ian Horner
- **Formulation of a bacteriophage-based biopesticide against *Erwinia amylovora*** (20 mins)
  Kammerecker, Sandrine; Gayder, Steven; Gervásio, Kellen; Henriques, André; Torres-Cortés, Gloria; Kőrösiné Papp, Szilvia; Kovács, Tamás; Raffai, Krisztina; Cabezón Largas, Sixto; de Santos Prieto, Borja; Fieseler, Lars
- **Improvement of the citric acid buffer used for fire blight control with Blossom Protect™** (20 mins)
  Timothy Jenkins, Stefan Kunz, Armin Weiß, Jan Wunderle
- **Improving tissue processing, sensitivity and dynamic range of viability droplet digital PCR (v-ddPCR) for detection and quantification of *Erwinia amylovora* in fire blight cankers** (20 mins)
  Bidhan Chandra Dhar, Ricardo Delgado Santander, Srđan G. Aćimović

12:30 – 13:30
Lunch

13:30 – 15:15
Session 4 - Molecular biology and pathogen genome analyses
Chair: Fabio Rezzonico

- **Keynote**: **Evolution of *Erwinia amylovora* genome: what, how and why?** (45 mins)
  Ho-wen Yang, Awais Khan, Ken Johnson, Tianna Dupont, Youfu Zhao

15:15 – 15:40
Coffee Break

15:40 – 17:00
Session 4 - Molecular biology and pathogen genome analyses
Chair: Fabio Rezzonico

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- **Comparative genomics provides new insights into host specificity and evolutionary history of *Erwinia amylovora*** (20 mins)
  Christian Sprecher, Joël F. Pothier, Jochen Blom, Virginia O. Stockwell, Fabio Rezzonico, Theo H.M. Smits
- **Increasing genetic diversity suggests multiple independent introductions of fire blight in Central Asia** (20 mins)
  Fabio Rezzonico, Saikal Bobusheva, Nataliya Drenova, Mirjam Kurz, Zhulduzay Jumanova, Galiya Zharmukhamedova, Tinatin Doolotkeldieva, Theo H.M. Smits
- **Genome editing in Erwinia amylovora by rpsL counter-selection** (20 mins)
  Laura Binmöller, Ofere Francis Emeriewen, Andreas Peil, Annette Wensing, Wilhelm Jelkmann
- **RpoN regulon in *Erwinia amylovora* revealed by transcriptional profiling and *in silico* binding site analysis** (20 mins)
  Ho-wen Yang, Youfu Zhao

17:30 – 19:30
Dresden City Tour with the Red Double Decker Bus

08.09.2022 (THUR)

9:30 – 10:35
Session 5 – Host – *Erwinia amylovora* interaction
Chairs: Theo Smits, Youfu Zhao

- **Keynote: Host-*Erwinia amylovora* interaction** (45 mins)
  George Sundin
- **The Ams proteins and the amylovoran biosynthetic pathway in the phytopathogen *Erwinia amylovora*** (20 mins)
  Lavinia Carlini, Alfonso Esposito, Luca Mauro Invernizzi, Luca Ambrosino, Silvano Piazza and Stefano Benini

10:35 – 11:00
Coffee Break

11:00 – 12:20
Session 5 - Host-*Erwinia amylovora* interaction
Chairs: Theo Smits, Youfu Zhao

- **The complex and compartmentalized cyclic di-GMP signaling network is a global regulator of phase-transition and host colonization in *Erwinia amylovora*** (20 mins)
  Roshni R. Kharadi, George W. Sundin
- **Colonization of yeast-like fungi on apple flowers induces host immunity and prevents fire blight infection** (20 mins)
  Zeng Q**.**
- **Probing metabolite requirements for *Erwinia amylovora* disease establishment** (20 mins)
  Neil P. Schultes, Judith P. Sinn, Timothy W. McNellis

- **Glandular and non-glandular trichomes are colonization sites and host entry points of the fire blight pathogen on apple leaves** (20 mins)
  Millett F., Cui Z., Miller, K., Zeng Q**.**

Posters will also be available for viewing during coffee breaks

12:20 – 13:30
Lunch

14:00 – 18:00
Excursion Pillnitz Palace Park
JKI orchard and apple tasting
Poster Session (Schurichtbau)

18:00 –
Conference Barbecue including Wine Tasting

09.09.2022 (FRI)

9:30 – 10:35
Session 6 - Plant breeding and breeding research
Chairs: Andreas Peil, Ofere Francis Emeriewen

- **Keynote: The dichotomy of polygenic and monogenic resistance to fire blight: the case of wild and domesticated apple genotypes** (45 mins)
  Ofere Francis Emeriewen, Thomas Wöhner, Annette Wensing, Henryk Flachowsky, Andreas Peil
- **Advances in breeding fire blight resistant apple cultivars at Agroscope** (20 mins)
  Simone Buehlmann-Schuetz, Marius Hodel, Luzia Lussi, Giovanni AL Broggini, Andrea Patocchi, Markus Kellerhals

10:35 – 11:00
Coffee Break

11:00 – 11:40

- **Mapping novel QTL for fire blight resistance in the primary progenitor species of domesticated apples (*M. × domestica*)** (20 mins)
  Richard Tegtmeier, Awais Khan
- **Fire Blight resistance breeding in Dresden-Pillnitz** (20 mins)
  Andreas Peil, Ofere Francis Emeriewen, Klaus Richter, Monika Höfer, Henryk Flachowsky

11:40 – 12:30
Conclusion, Final Remarks, next meeting

12:30 – 13:30
Lunch

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