

Fusarium Workshop Program

March 17, 2015; 9:00 AM - 4:00 PM; Nautilus Room

Introduction and welcome

09:00 Lotje van der Does, *University of Amsterdam*

Molecular Genetics/ Cell Biology. Chair, Lotje van der does

09:05- 09:20. **Doubling the Cell Wall – Unexpected Modification of the *Fusarium graminearum* Cell Wall Architecture due to Serine/Threonine Protein Kinase 1 Deletion.** Christian Voigt, *Biocenter Klein Flottbek, Hamburg, Germany*

09:20- 09:35. **Subcellular reorganization during trichothecene mycotoxin induction in *Fusarium graminearum*.** Marike J. Boenisch, *USDA ARS Cereal Disease Laboratory, St. Paul, MN USA*

09:35 – 09:50. **Interplay of MAPK and ROS signaling in chemotrophic growth of *Fusarium oxysporum*.** Daniela Dirschnabel, *Department of Genetics, University of Córdoba, Spain*

09:50 – 10:05. **Transcriptomics of oxidative stress response mediated by Fgap1.** Nadia Pons, *INRA, Villenave d’Ornon, France.*

10: 05 – 10:20. **Identification of genes defective in silencing by a forward genetics approach in *Fusarium graminearum*.** Lanelle R. Connolly, *Oregon State University, Corvallis, OR, USA*

10:20 – 10:35. Morning break

Genomics. Chair, H. Corby Kistler

10:35 – 10:50. **Dissecting *Fusarium* pathogenesis using a systems approach.** Greg DeJulio, *Department of Biochemistry and Molecular Biology, University of Massachusetts, USA*

10:50 – 11:05. **Whole genome comparisons in *Fusarium oxysporum* spp. reveal a three-speed genome, large scale losses and putative horizontal transfer events.** Like Fokkens, *Swammerdam Institute of Life Sciences, University of Amsterdam*

11:05 – 11:20. **Use of NGS to study genome plasticity in *Fusarium oxysporum*.** Antonio Di Pietro, *Department of Genetics, University of Córdoba, Spain*

11:20 – 11:35. **Completion of the genome sequence of the ascomycete fungus *Fusarium graminearum*.** Robert King, *Rothamsted Research, Harpenden, Herts, UK*

11:35- 11:50. **Revisiting the primary annotation of *Fusarium graminearum* PH-1.** Ulrich Güldener, *German Research Center for Environmental Health, Neuherberg, Germany.*

11:50 – 12:10. **Discussion on Community Annotation Efforts. Organization of *Fusarium* workshop for ECFG13.**

12:10 – 13:30 Lunch break

Host Pathogen Interactions. Chair, Martijn Rep

13:30 – 13:45. ***Fusarium graminearum* is able to synthesize auxin and to inactivate the ethylene precursor 1-aminocyclopropane-1-carboxylic acid (ACC).** Gerhard Adam, *University of Natural Resources and Life Sciences Vienna (BOKU). A-3430 Tulln, Austria.*

13:45 – 14:00. **Degradation of the phytoalexin benzoxazolinones is important for virulence in *Fusarium* pathogens infecting wheat.** Andrew Kettle, *C.S.I.R.O., Brisbane, Australia*

14:00 – 14:15. **Effector genes in cucurbit-infecting strains of *Fusarium oxysporum*.** Peter van Dam, *Molecular Plant Pathology, University of Amsterdam*

Secondary Metabolism – mycotoxins. Chair, Marike Boenisch

14:15- 14:30. **Molecular network of nitrate sensing and assimilation in *Fusarium fujikuroi*.** Andreas Pfannmüller, *University Münster, Germany.*

14:30 – 14:45. **The origin, distribution and evolution of Type A trichothecenes in the *Fusarium graminearum* species complex.** Amy Kelly, *USDA-ARS, Peoria, IL USA*

14:45 - 15:00. **Contributions of vertical descent, horizontal transfer and gene loss to the distribution of mycotoxin biosynthetic gene clusters in *Fusarium*.** Robert H. Proctor, *USDA-ARS, Peoria, IL USA*

15:00 – 15:15 Break

Population Genomics/ Metagenomics. Chair, Sarah Schmidt.

15:15 - 15:30. **Structure and function of *Fusarium* communities within the rhizosphere microbiome of two prairie plant species.** Nicholas LeBlanc, *University of Minnesota, St. Paul MN USA*

15:30 – 15:45. **Field populations of *Fusarium graminearum* revealed different recombination pattern.** Firas Talas, *Plant Pathology Institute of Integrative Biology, ETH Zurich*

15:45 – 16:00. **Population genomics and scans for selection in the plant pathogen *Fusarium graminearum*.** Christopher Toomajian, *Kansas State University, Manhattan, KS USA*