

# Deciphering plant fungal infection using comparative genomics.

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### **Program**

#### 5<sup>th</sup> Conference on Physiology of Yeast and Filamentous Fungi June 4 - 7, 2013, Montpellier

#### Tuesday, June 4th 2013

17.30	Registration
18.30 - 20.00	Welcome cocktail at the Corum with the support of Pernod-Ricard

#### Wednesday, June 5<sup>th</sup> 2013

8.00	Registration
8.30	Opening
	Session 1 – From genome sequence to cell physiology and
	morphology
	Chairs: David Archer and Sylvie Dequin
9.00	Invited lecture
	Gianni Liti (CNRS, Nice, France)
	Yeast cell physiology: insights from natural variation
9.35	Warren Albertin (ISVV, Villenave d'Ornon, France)
	Leading role of post-translational modifications in the control of
	metabolic and life-history traits
9.55	Valentina Cappelletti (Fondazione Edmund Mach, San Michele all'Adige,
	Italy)
	Systems biology approach for the identification of genetic determinants
	of colony morphology switch in natural S. cerevisiae
10.15 – 10.45	Coffee / Tea break
10.45	Invited lecture
	Zheng Zhao (DSM, Wageningen, The Netherlands)
	Exploring fungal genome diversity for industrial product formation
11.20	Agustina Llanos (INRA, Toulouse, France)
	Regulation of the expression of glycoside hydrolase-encoding genes in
	Penicillium funiculosum
11.40	Robert Bischof (VUT, Vienna, Austria)
	Differences of the lactose and lignocelluloses induced transcriptome of
	T. reesei
12.00 - 13.30	Lunch
13.30 – 15.00	Poster session

	Session 2 – Metabolic engineering and synthetic biology
	Chairs: Jack Pronk and Arthur Kruckeberg
15.00	Invited lecture
	Eckhard Boles (Goethe University, Frankfurt, Germany)
	Re-engineering of glucose transporters into xylose transporters for
	improved co-fermentation of mixed-sugar hydrolysates with $S$ .
	cerevisiae
15.35	Frank Koopman (Delft University of Technology, Delft, The Netherlands)
	De novo production of the flavonoid naringenin in engineered
	Saccharomyces cerevisiae
15.55	Uffe Mortensen (Technical University of Denmark, Lyngby, Denmark)
	Efficient platforms for secondary metabolite production in
	Saccharomyces cerevisiae
16.15 – 16.45	Coffee / Tea break
16.45	Invited lecture
	Jean-Marc Daran (Delft University of Technology, Delft, The Netherlands)
	Improving production of β-lactam antibiotics by Penicillium
	chrysogenum - Metabolic engineering based on transcriptome analysis
17.20	Laurent Boitard (ESPCI, PARIS, France)
	Droplet-based micro/millifluidics for the analysis ans screening of fungi
17.40	Jette Thykaer (Technical University of Denmark, Lyngby, Denmark)
	Regulatory aspects of acid formation in Aspergillus niger
18.00	End

# Thursday, June 6<sup>th</sup> 2013

9.00	Chairs: Isabel Sá Correia and Marie-Françoise Gorwa-Grauslund Invited lecture Gertien Smits (University of Amsterdam, The Netherlands) The smallest signal: protons as second messenger of environmental status in yeasts Daniel Gonzalez Ramos (Delft University of Technology, Delft, The Netherlands)
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9.35	
	A combination of genome-scale analyses and evolutionary engineering
	of butanol tolerance in <i>Saccharomyces cerevisiae</i> reveal an essential role
	of protein degradation
9.55	Catherine Tesnière (INRA, Montpellier, France)
9.55	Nitrogen excess triggers yeast cell death in lipid-limited must
10.15 – 10.45	Coffee / Tea break
10.45	Invited lecture
	David Archer (University of Nottingham, United Kingdom)
	Responses of yeasts and filamentous fungi to the stress of exposure to
	weak-acid preservatives
11.20	Antonio Pedro Gonçalves (ICBAS-University of Porto, Porto, Portugal)
	Calcium and cell death in Neurospora crassa
11.40	Anna Eliasson Lantz (Technical University of Denmark, Lyngby, Denmark)
	Saccharomyces cerevisiae population heterogeneity dynamics in
	response to growth rate and glucose perturbations
12.00 – 13.30	Lunch
13.30 – 15.00	Poster session
	Session 4 – System-based understanding of cell physiology
	Chairs: Merja Penttilä and Eckhard Boles
15.00	Invited lecture
	Jens Nielsen (Chalmers University, Gothenburg, Sweden)
	Advancing metabolic engineering of fungal cell factories through
	systems biology
15.35	Bas Teusink (University Amsterdam, Amsterdam, The Netherlands)
	Cracking the TPS mystery in yeast glycolysis
15.55	Markus Bisschops (Delft University of Technology, Delft, The Netherlands)
	The role of Rim15 in Saccharomyces cerevisiae at near-zero growth
40.45 40.45	rates
16.15 – 16.45	Coffee / Tea break
10.45	
17 20	
17.20	
17.40	
	pH controls invasive fungal growth by reprogamming MAPK
	phosphorylation status
18.00	End
	Gala dinner at "domaine des Moures" with the support of JeanJean
16.45 17.20 17.40	

# Friday, June 7<sup>th</sup> 2013

	Consider 5. Dhysiology in relation to natural hebitate
	Session 5 – Physiology in relation to natural habitats
	Chairs: Jean-Marie François and Antonio di Pietro
9.00	Invited lecture
	José Sampaio (Universidade Nova de Lisboa, Lisbon, Portugal)
	Surveying wild lineages of Saccharomyces to understand patterns of
	domestication
9.35	Thomas Walther (INSA, Toulouse, France)
	Metabolic phenotypes of Saccharomyces cerevisiae mutants with altered
	trehalose-6-phosphate dynamics
9.55	Jean-Luc Legras (INRA, Montpellier, France)
	First insights into adaptation of yeast to anthropic niches using
10.15 10.15	comparative genomics
10.15 – 10.45	
10.45	Invited lecture
	Gerhard Braus (University Göttingen, Germany)
	Coordination of fungal secondary metabolism and development in different habitats
11.20	Ulrich Terpitz (University Würzburg, Würzburg, Germany)
11.20	Biophysical analysis of the fungal rhodopsin CarO of Fusarium fujikuroi
11.40	Joost van den Brink (CBS-KNAW Fungal Biodiversity Centre, Utrecht, the
11.40	Netherlands)
	Biodiversity of Chaetomiaceae for efficient plant biomass degradation
12.00 – 13.30	•
12.00	Session 6 – Organelles, trafficking and secretion
10.00	Chairs: Gerhard Braus and Diethard Mattanovich
13.30	Invited lecture
	Brigitte Gasser (University of Natural Resources and Life Sciences Vienna, Austria)
	Folding and secretion of heterologous proteins in yeasts – A genome scale
	perspective
14.05	Claudia Schmidt (Graz University of Technology, Graz, Austria)
11.00	Regulation of the yeast triacylglycerol lipase Tgl3p by formation of non-
	polar lipids
14.25	Tatiana Aguiar (Universidade do Minho, Braga, Portugal)
11.20	Unique transcriptional responses of <i>Ashbya gossypii</i> to endoplasmatic
	reticulum stress
14.45	Invited lecture
	Markku Saloheimo (VTT Technical Research Centre of Finland, Finland)
	Protein production studies in <i>Trichoderma reesei</i> : intracellular
	production strategies as an alternative for challenging target proteins
15.20	Tran-Trung Nguyen (CNRS, Orsay, France)
	PaYHM2, the Podosopora anserina ortholog of Saccharomyces cerevisiae
	Yhm2p mitochondrial carrier is an essential gene in filamentous fungus
15.40	Benjamin Nitsche (Berlin University of Technology, Berlin, Germany)
	Exploiting transcriptomic signatures of Aspergillus niger to uncover key
	genes important for high protein traffic through its secretory pathway
16.00	Poster awards and closing
16:30	End