Programme ECFG12. Hotel Silken Al Andalus

Saturday, March 22

17.00-23.00 Satellite meetings. The 11th International *Aspergillus* Meeting (Asperfest)

Sunday, March 23

09.00-16.00 Satellite meetings

12.00-18.00 Registration

18.00-20.00 **Welcome address** (Lecture Hall Velázquez)

  **Opening Lecture**
  Chair: Miguel A. Peñalva

  KL1 γ-Tubulin: A multitasking cell organizer
  Berl Oakley

20.00-22.00 Welcome reception

Monday, March 24

09.00-12.00 The **Yanofsky plenary session** (Lecture Hall Velázquez)
  Chairs: Arthur Ram and Marc-Henri Lebrun

09.00-09.30 PS1.1 *Gene silencing, heterochromatin formation and DNA methylation in Neurospora*
  Eric Selker

09.30-10.00 PS1.2 *Early endosome motility spatially organizes polysome distribution*
  Gero Steinberg

10.00-10.30 PS1.3 *HookA is a novel dynein-endosome linker critical for endosome movement in vivo*
  Xin Xiang

10.30-11.00 Break

11.00-11.30 PS1.4 *Photobiology in model and clinical fungi*
  Jennifer Loros

11.30-12.00 PS1.5 *Light and time in Aspergillus nidulans*
  Reinhard Fischer

12.30-14.00 Lunch

14.00-16.00 **Poster session 1** (Manolo “Caracol” Hall)

16.00-19.00 **Concurrent sessions 1-3**

  **Unconventional gene regulation** (Lecture Hall Velázquez)
  Chairs: Rosa Ruiz-Vázquez and Joseph Strauss

16.00-16.20 CS1.1 *Histone de-methylases regulate primary and secondary metabolism in Aspergillus nidulans*
  Joseph Strauss

16.20-16.40 CS1.2 *Regulatory networks and regulators of chromatin structure governing global responses to changes in light and time*
  Jay Dunlap

16.40-17.00 CS1.3 *Heterochromatin controls γH2A localization and genome stability in Neurospora crassa*
  Zacharias Lewis
The functional characterization of the Neurospora crassa HAC-1 transcription factor reveals a crucial role for the unfolded protein response in plant cell wall deconstruction
Luís Larrondo

Regulation of endogenous functions by small RNAs in the pathogenic fungus Mucor circinelloides
Rosa Ruiz-Vázquez

Mechanisms of small non-coding RNA pathways in Neurospora
Yi Liu

RNAi-dependent epimutations evoke antifungal drug resistance in the zygomycete fungal pathogen Mucor
Silvia Calo Varela

Spliceosomal twin introns in fungal nuclear transcripts: structure and evolution
Michel Flipphi

Fungal development (Lecture Hall Aleixandre)
Chairs: Minou Nowrousian and Eduardo Espeso

Comparative genomics and transcriptomics to analyze fruiting body development
Minou Nowrousian

Tracking the evolution of perithecium morphology through transcriptomics
Frances Trail

Sexual development and female fertility in Trichoderma reesei
Monika Schmoll

A retinoic-acid biosynthetic enzyme involved in morphology and sexual development in Fusarium verticillioides
Violeta Díaz Sanchez

Deciphering the role of the Flb-apical complex in asexual development of Aspergillus
Eduardo Espeso

Regulation of morphogenesis during development in the filamentous fungus Aspergillus nidulans
Steven Harris

Investigating the role of the exocyst complex in appressorium-mediated tissue invasion by rice blast fungus Magnaporthe oryzae
Yogesh Gupta

Light-responsive transcription factors (LTFs) regulate differentiation and virulence in the gray mold fungus Botrytis cinerea
Julia Schumacher

Social fungal biology (Lecture Hall Turina)
Chairs: Natalia Requena and Barry Scott

Defining the line between mutualism and parasitism
Natalia Requena

Did1, a novel fungal histidine-rich effector-protein that binds to metal ions to perturb plant immunity
Alisa Zuccaro

The effector protein Missp7 of the mutualistic ectomycorrhizal fungus Laccaria bicolor interacts with Populus Jaz proteins
Claire Veneault-Fourrey

Trojan horse strategy and fair trade among symbioses: how one fungal species can invade thousands of plant species
Mathilde Malbrei

Cell fusion is required to maintain an Epichloë festucae symbiotic hyphal network in Lolium perenne
Barry Scott

Genomic analyses of Mortierella elongata and associated bacterial endosymbiont (Candidatus glomeribacter sp.)
Jessie Uehling
18.20-18.40 CS3.7 *Verticillium* transcription activator of adhesion Vta2 suppresses microsclerotia formation and is required for systemic infection of plant roots
Susanna A. Braus-Stromeyer

18.40-19.00 CS3.8 Phylogenomics of Hypocreales and the evolution of secondary metabolism
Joseph W Spatafora

19.00-20.00 Special lecture (Lecture Hall Velázquez)
Chair: Reyes González-Roncero

KL2 Chromatin structure as a mediator of transcription- and R-loop-associated genome instability
Andrés Aguilera

**Tuesday, March 25**

09.00-12.30 The *Clutterbuck* plenary session (Lecture Hall Velázquez)
Chairs: David Archer and Gillian Turgeon

09.00-09.30 PS2.1 The initiation of asexual development in *Aspergillus nidulans*
Unai Ugalde

09.30-10.00 PS2.2 *Aspergillus nidulans* septins in multicellular development
Michelle Momany

10.00-10.30 PS2.3 Morphological and metabolic adaptation to environmental conditions by *Penicillium marneffei* and its role in the host
Alex Andrianopoulous

10.30-11.00 Break

11.00-11.30 PS2.4 Evolution of sexual reproduction: a view from the fungal kingdom
Joseph Heitman (dedicated to the memory of Prof. Lorna Casselton)

11.30-12.00 PS2.5 Fruiting-body development in *Sordaria macrospora*-A matter of recycling
Stefanie Pöggeler

12.30-14.00 Lunch

14.00-17.00 Concurrent sessions 4-6

**Infecting the host** (Lecture Hall Velázquez)
Chairs: Regine Kahmann and Antonio Di Pietro

14.00-14.20 CS4.1 A secreted *Ustilago maydis* effector promotes virulence by targeting anthocyanin biosynthesis in maize
Shigeiuki Tanaka

14.20-14.40 CS4.2 Effector specialization in a lineage of the Irish potato famine pathogen
Sophien Kamoun

14.40-15.00 CS4.3 Hotspots of recombination shape the evolution of virulence in the wheat pathogen *Zymoseptoria tritici*
Daniel Croll

15.00-15.20 CS4.4 Characterization of a circadian clock in *Botrytis cinerea* and its role in pathogenesis using *Arabidopsis thaliana* as a plant model
Montserrat Hevia

15.20-15.40 Break

17.40-16.00 CS4.5 Chemotropic sensing in the fungal pathogen *Fusarium oxysporum*
David Turrà

16.00-16.20 CS4.6 Modulation of pathogenicity by pH regulation in the host
Dov Prusky

16.20-16.40 CS4.7 Investigating the role of tyrosine catabolism and pyomelanin production during in vivo growth in the human pathogen *Penicillium marneffei*
Kylie Boyce

16.40-17.00 CS4.8 Pathogenicity chromosomes in host-specific toxin-producing *Alternaria* species
Motoichiro Kodama
Sensing the environment (Lecture Hall Aleixandre)
Chairs: Alfredo Herrera-Estrella and Michael Brunner
14.00-14.20 CS5.1 An injury response mechanism conserved across kingdoms
Alfredo Herrera-Estrella
14.20-14.40 CS5.2 Interplay between self and nonself recognition mechanisms regulate chemotropic interactions and cell fusion in Neurospora crassa
N. Louise Glass
14.40-15.00 CS5.3 Class III peroxidases secreted by tomato roots trigger hyphal chemotropism in Fusarium oxysporum
Mennat El Ghalid
15.00-15.20 CS5.4 Composition of the MAK-2 MAP kinase cascade in Neurospora crassa
Stephan Seiler
15.20-15.40 Break
15.40-16.00 CS5.5 Cooperation of the GATA type transcription factors WCC and SUB1 in light-induced transcription
Michael Brunner
16.00-16.20 CS5.6 Light sensing in Phycomyces blakesleeanus
Alex Idnurm
16.20-16.40 CS5.7 The novel sensor-globin Fungoglobin is involved in low oxygen adaptation of Aspergillus fumigatus
Falk Hillmann
16.40-17.00 CS5.8 Genome-wide transcriptional response to ambient pH changes in Fusarium graminearum: A large metabolic reorganization controlled by Pac1
Christian Barreau

Putting fungi to work (Lecture Hall Turina)
Chairs: José Arnau and Peter Punt
14.00-14.20 CS6.1 Systems biology approaches for organic acid production in filamentous fungi
Peter Punt
14.20-14.40 CS6.2 Genetic characterization of itaconic acid biosynthesis in Ustilago maydis
Sandra Przybilla
14.40-15.00 CS6.3 Cellulase and hemicellulase regulation and production in Trichoderma reesei
Bernard Seiboth
15.00-15.20 CS6.4 The responses of Aspergillus niger to different lignocellulosic substrate
Paul Daly
15.20-15.40 Break
15.40-16.00 CS6.5 The first ribosomal peptide synthase pathway in filamentous fungi
Myco Umemura
16.00-16.20 CS6.6 Comparative genome-scale reconstruction of gapless metabolic networks
Mikko Arvas
16.20-16.40 CS6.7 Yarrowia lipolytica as a host for carotenoid production
John Royer
16.40-17.00 CS6.8 Streptomyces: the beauty of a filamentous industrial bacterium
Gilles van Wezel
17.00-20.30 Sightseeing tour

Wednesday, March 26

09.00-12.30 The Scazzocchio plenary session (Lecture Hall Velázquez)
Chairs: Paul Tudzynski and Merja Penttilä
09.00-09.30 PS3.1 Sensory perception in the mammalian host: Guiding invasive growth and rational therapeutic design
Elaine Bignell. The BMS lecture.
09.30-10.00 PS3.2 Transposable elements reshaping genomes and favoring the evolutionary and adaptive potential of fungal phytopathogens
Thierry Rouxel
10.00-10.30 PS3.3 Septin-mediated plant tissue invasion by the rice blast fungus *Magnaporthe oryzae*
Nick Talbot. *The EMBO Lecture.*

10.30-11.00 Break

11.00-11.30 PS3.4 Genomic analysis in the search for oxidoreductases of industrial interest
Ángel Martínez

11.30-12.00 PS3.5 The evolution of fungal chemodiversity

12.00-12.15 PS3.6 Fungal genomics resources of the US Department of Energy Joint Genome Institute
Igor Grigoriev

12.30-14.00 Lunch

13.30-14.00 JGI Orientation (Lecture Hall Aleixandre)

14.00-16.00 Poster session 2 (Manolo “Caracol” Hall)

16.00-19.00 Concurrent sessions 3

**Inside the fungal cell** (Lecture Hall Velázquez)
Chairs: Meritxell Riquelme and Steve Osmani

16.00-16.20 CS7.1 The ordered accumulation of vesicles at the spitzenkörper is regulated by the action of distinct RAB GTPases and the exocyst in *Neurospora crassa*
Meritxell Riquelme

16.20-16.40 CS7.2 Phosphatidylinositol phosphate gradients during fungal filamentous growth
Robert Arkowitz

16.40-17.00 CS7.3 Dual targeting of peroxisomal proteins
Michael Bölker

17.00-17.20 CS7.4 Inside an *A. gossypii* hypha: combining high-resolution electron tomography, video microscopy and proteomics
Peter Philippsen

17.20-17.40 Break

17.40-18.00 CS7.5 Mitotic regulation within a multicellular fungus
Steve Osmani

18.00-18.20 CS7.6 Autophagy controls nuclear dynamics during vegetative hyphal growth and fusion of *Fusarium oxysporum*
Carmen Ruiz Roldán

18.20-18.40 CS7.7 Interplay of phosphatases and kinases: STRIPAK and MAP kinases regulate cell differentiation in *Sordaria macrospora*
Ines Teichert

18.40-19.00 CS7.8 Cisternal maturation within the *Aspergillus nidulans* golgi visualized in vivo
Areti Pantazopoulou

**Fungal genomes: now what?** (Lecture Hall Aleixandre)
Sponsored by Pacific Biosciences
Chairs: Hanna Johannesson and Toni Gabaldón

16.00-16.20 CS8.1 Adaptive introgression slows down molecular degeneration of the mating-type chromosome in *Neurospora tetrasperma*
Hanna Johannesson

16.20-16.40 CS8.2 Data-driven comparative functional genomics in yeast
Maitreya J. Dunham

16.40-17.00 CS8.3 Insights into the evolution of the mycorrhizal symbiosis
Francis Martin

17.00-17.20 CS8.4 The genomic architecture of ectomycorrhizal symbiosis in the genus *Amanita*
Jaqueline Hess

17.20-17.40 Break

17.40-18.00 CS8.5 Got a genome? Get a phylome!: Fungi through the evolutionary lens
Toni Gabaldón
18.00-18.20  CS8.6 Early origins of the fungal cell wall and multicellularity in fungi
            Jason E Stajich
18.20-18.40  CS8.7 Combining population genomics, RNA-seq and miniature transposable
            element (MITE) presence to identify the AVR2 gene of the melon pathogenic
            fungus Fusarium oxysporum f. sp. melonis
            Sarah M. Schmidt
18.40-19.00  CS8.8 Insights on the evolution of mycoparasitism from the genome of
            Clonostachys rosea
            Magnus Karlsson

            DNA/RNA/protein interplay (Lecture Hall Turina)
            Chairs: Ane Sesma and Michael Feldbrügge
16.00-16.20  CS9.1 Multiple layers of regulation of fungal cleavage factor 1 proteins
            Ane Sesma
16.20-16.40  CS9.2 The FgPRP4 kinase is important for RNA processing, growth, and
            pathogenesis in Fusarium graminearum
            Jin-Rong Xu
16.40-17.00  CS9.3 Epigenetic control of effector gene expression in the plant pathogenic
            fungus Leptosphaeria maculans
            Isabelle Fudal
17.00-17.20  CS9.4 Regulatory crosslinks of the unfolded protein response control fungal
            development and pathogenicity
            Kai Heimel
17.20-17.40  Break
17.40-18.00  CS9.5 mRNA transport meets membrane trafficking
            Michael Feldbrügge
18.00-18.20  CS9.6 The coordination of mRNA degradation and translational repression
            Mark Caddick
18.20-18.40  CS9.7 The spf27-homologue num1 connects splicing and cytoplasmic trafficking
            processes in Ustilago maydis
            Jörg Kämper
18.40-19.00  CS9.8 Laser microdissection and transcriptomics of infection cushion
            development of Fusarium graminearum
            Schäfer Willi
19.00-19.30  Poster awards
19.30-20.30  Closing lecture (Lecture Hall Velázquez)
            Chair: Santiago Torres-Martínez

            KL3 Life and sex in the lab and in the field
            Enrique Cerdá-Olmedo

21.00  Conference dinner

**Thursday, March 27**

09.00-12.00  Departure
09.00-17.00  Satellite meetings. 4th workshop of the Mycorrhizal Genomics Initiative Consortium