

## British Mycological Society and British Society for Plant Pathology Joint Presidential Meeting 2017

### Fungal Exploitation and Fungal Control

#### Monday 11<sup>th</sup> September

- 13.00 Lunch and registration
- 14.00 Welcome
- 14.15 Plenary - BSPP President Richard Oliver  
Translating understanding of plant pathogen control genetics into grower profits
- 15.00 Plenary - BMS President Pieter van West  
Title TBC
- 15.45 Coffee break
- 16.15 Plenary - Richard Michelmore  
The impact of new technologies on strategies to increase the durability of disease resistance
- 17.00 Plenary - Mark Lynas  
Anti-science and post-truth: why we got it so wrong about GMOs
- 17.45 Poster session and Drinks reception (Elsevier sponsored)
- 18.15 BSPP AGM Small lecture theatre
- 19.30 Dinner

Tuesday 12<sup>th</sup> September

Concurrent. BMS (Exploitation 1)

- 9.00 BMS Invited - Vera Meyer  
Moving from descriptive to predictive biology: Rational rewiring of the cell factory *Aspergillus niger*
- 9.30 BMS Invited - Scott Baker  
Fungi for biotechnology
- 10.00 Muhammad Akbar: A novel inoculation method of mycorrhizae in wheat fields has remarkable effects on crop yield and soil properties
- 10.20 Elena Geib: *Aspergillus niger* versus *Aspergillus oryzae*: Expression platforms for heterologous secondary metabolite production
- 10.40 Coffee
- 11.10 BMS Invited - Eckhard Thines  
Unravelling pyriculol biosynthesis and its regulation in the rice blast fungus *Magnaporthe oryzae*
- 11.40 Kristiina Hilden: Biochemical characterization of mannan-acting enzymes from the white-rot fungus *Dichomitus squalens*
- 12.00 Michaela Novdvorska: Pigment biosynthesis in *Penicillium roqueforti*, why be blue?

Concurrent BSPP

- BSPP Invited -Bruce McDonald  
Using population genomics to determine the genetic basis of pathogen adaptation in agro-ecosystems
- BSPP Invited -Lise Nistrup Jorgensen  
Why does IPM not lead to more reductions in fungicides?
- Vanessa McMillan: Identifying root resistance in take-all disease
- Yongju Huang: Ignored until recently- the story of the fungal pathogen *Leptosphaeria biglobosa*
- Coffee
- PH Gregory Student Competition Talks**
- 1)Corinne Arnold (JIC): Powdery Mildew: a tale of two fungicides
  - 2) Shaoli Das Gupta(RHUL): *Blumeria* metallo-protease like effector; A zincophore acting as a universal virulence factor in fungi?
  - 3) Kathryn Hales (Warwick): Understanding the ecology and epidemiology of *Pythium violae* to enable disease management in carrot crops.
  - 4) Sascha Jenkins (Warwick): Examining identity, phylogeny and pathogenicity factors in *Fusarium* species affecting pea.
  - 5) Chinthani Karandeni Dewage (Hertfordshire): Fine mapping of a major gene locus for resistance against *Pyrenopeziza brassicae* (light leaf spot) in *Brassica napus* and identification of candidate resistance genes
  - 6) Joseph Moughan (Rothamsted): From the field to the lab and back again: exploring legacy effects of root genetics and fungicide for take-all root disease control in wheat rotations.

- 12.20 Lunch  
13.30 Elsevier author workshop

**Concurrent. BMS (Control 1)**

- 14.30 BMS Invited - Axel Brakhage  
Melanin-dependent pathogenicity of *Aspergillus fumigatus*
- 15.00 Janet Quinn: Fungal SAPK pathways as mediators of virulence
- 15.20 Cindy Vallieres: Synergistic combinations targeting translation fidelity and diverse fungal pathogens.
- 15.40 Coffee
- 16.10 BMS Invited - Al Brown  
*Candida albicans* is a moving target for the immune system as it adapts to host signals
- 16.40 Rhys Farrer: Targeting infection mechanisms for two amphibian-infecting chytrid species.
- 17.00 **Posters session**  
  
BMS AGM Small lecture theatre
- 19.30 **Conference dinner**

**Concurrent BSPP**

- BSPP Invited - Vivianne Vleeshouwers  
Exploiting effectors in breeding and deployment of *R* genes in potato
- Franziska Trusch: The RxLR Motif of the Host Targeting effector AVR3a of *Phytophthora infestans* is cleaved before secretion
- Sarah Schmidt: Know your enemy-engineering resistance against Fusarium wilt in banana.
- Coffee
- BSPP Invited -Karl-Heinz Kogel  
The Agronomic Potential of Gene Silencing Application
- Laurence Bindschedler: Combining proteomics of haustoria and gene silencing to discover key players of virulence during barley powdery mildew infection

**Wednesday 13<sup>th</sup> September**

**Concurrent. BMS (Exploitation 2)**

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|-------|---|--|
| 9.00  | BMS Invited - Ronald de Vries<br>Diversity in plant biomass degradation approaches of fungi   | BSPP Invited - Sander Schouten<br>Direct and indirect effects of fungal endophytes on plant-parasitic nematodes                                  |
| 9.30  | <b>Kotta-Loizou Ioly: Mycoviruses as prospective enhancers of biocontrol agents</b>   | Christian Voight: Improving plant resistance to fungal pathogens by callose modification   |
| 9.50  | Stefany Solano: Genomic and genetic analysis of a basidiomycete yeast focused on the characterisation of MEL biosynthesis           | Andrew Taylor: Understanding the genetic control of pathogenicity and resistance for <i>Fusarium oxysporum</i> in Onion                          |
| 10.10 | <b>Sara Casado López: Intraspecies diversity and induction of the wood decay by the white rot fungus <i>Dichomitus squalens</i></b> | Ryan Ames: Understanding appressorium development in <i>Magnaporthe oryzae</i>   |
| 10.30 | 10.30 Coffee  |  |
|       | <b>Concurrent. BMS (Control 2)</b>  | <b>Concurrent BSPP</b>   |
| 11.00 | BMS invited - Alan Gange<br>Exploiting unspecialised endophytes for biological control of insects and plants                        | BSPP Invited - Neil Paveley<br>Integrated deployment of host resistance and fungicides: economics, efficacy and evolution                        |
| 11.30 | BMS Invited - Mike Bromley<br>Regulation of drug resistance in <i>Aspergillus fumigatus</i>   | BSPP Invited - Frank Van den Bosch<br>Integrated deployment of host resistance and fungicides: managing evolution of virulence and insensitivity |

12.00 Takanori Furukawa: Systematic functional annotation of transcription factors in the major mould pathogen *Aspergillus fumigatus*

Andrew Leader: Fenpicoxamid (Inatreq™, active fungicide), a new fungicide with utility in cereals for control of *Zymoseptoria tritici* (Septoria leaf blotch) and other diseases

12.20 End of session

Avic Hall: Controlling Strawberry powdery mildews requires all year-round vigilance

12.40 Lunch

**Plenary Session and Close**

13.30 Plenary - Rob Johnson  
The Science of Quorn

14.00 Plenary - Natalia Requena  
Fungal weapons to manipulate plants

14.45 Prizes and Close