

Session I: Aspects of Forest Research



Prof Richard Buggs

Genomics for future trees

Richard Buggs is Senior Research Leader (Plant Health) at Royal Botanic Gardens Kew, and Professor of Evolutionary Genomics at Queen Mary, University of London. His group uses population genomic and phylogenomic methods to understand the genetic basis of plant resistance to pests and pathogens, and adaptation to present and future climates. His main study systems are ash, oak and birch trees, and southern Ethiopian crops.



Dr Adriana Puentes

Forest protection against insect pests: utilizing plant defence strategies to our favour

Dr a Puentes is a Senior Lecturer in forest protection against insect pests at the Dept. of Ecology, Swedish University of Agricultural Sciences in Uppsala, Sweden. Her broad interests lie in understanding the ecology and evolution of plant-herbivore interactions, and she has employed both a bi-trophic and tri-trophic perspective (including natural enemies of herbivores) in her studies. She is particularly interested in the key role that plant defences against biotic threats play in mediating interactions



Prof John Mackay

Stress response and resistance genomics in conifers

John MacKay is the Wood Professor of Forest Science at University of Oxford. He obtained a Ph.D. in genetics, B.Sc. and M.Sc. in forest sciences. He has worked at the Institute of Paper Science and Technology (USA) and at Laval University (Canada) and is presently the non-executive chair of the UK Conifer Breeding Cooperative. He is specialized in forest genomics and his interests include adaptation to environmental change, tree-insect interactions, genome evolution, and forest genetic resources for conservation and forest landscape restoration. He has authored 98 peer-reviewed publications and supervised 40 postgraduate students and research staff.

9.30 am – 17.15 pm **LG12 Old Gym**, University of Birmingham

Supported by:



Organized by:



UNIVERSITY OF
BIRMINGHAM

Session II: Enabling Tools in Plant Pathology



Prof Bart Thomma

To be confirmed



Dr Victoria Pastor and Dr Victor Flors

Targeted and non-targeted metabolomics to shed some light in plant-microbe interactions

Drs Pastor and Flors are researchers at the University Jaume I (Castello, Spain), in the Plant Physiology section, with a major interest in plant defence. Their research is mainly focused in seeking for the molecular mechanisms underpinning priming for plant defences against phytopathogens. Looking for those components improving plant resistance and resilience, will help food security in an environment of climate change.



Dr Marco Catoni

New approaches to study transposable element contribution to plant genome plasticity

Dr Catoni research is a Lecturer at the University of Birmingham studying plant epigenetics. He worked as a postdoc in the laboratory of Prof. Jerzy Paszkowski, initially at the University of Geneva (Switzerland) and then at The Sainsbury Laboratory (University of Cambridge). During his postdoc he applied high throughput genomics approaches and computational biology to investigate Arabidopsis epigenetic regulation and study the effect of transposable elements mobilization in plants.

9.30 am – 17.15 pm **LG12 Old Gym**, University of Birmingham

Supported by:



Organized by:



**UNIVERSITY OF
BIRMINGHAM**

Session III: Research in Tree Pathology

Prof Dawn Arnold

Detection and interaction of bacteria associated with Acute Oak Decline

After completing my PhD at the University of Bath in 1992 studying crook root disease of watercress, I then did a follow-up post doc at Bath on club root disease of brassicas. I moved to the University of the West of England, Bristol in 1994 as a post doc and I am now a Professor of Molecular Plant Pathology. At UWE I lead a group investigating *Pseudomonas syringae* pathogenicity and evolution. More recently my group has been working on tree pathogens with a focus on the bacteria associated with Acute Oak Decline.

Prof Luis Sampedro

Challenges with understanding the spatial and temporal patterns of tree constitutive and induced chemical defences

Our research group studies the responses to biotic stress in long lived plants. We are curious about the interactions among pine trees and their insect herbivores and pathogens, and how environmental factors (both biotic and abiotic), genetic variation within and between pine populations and other sources of phenotypic variation such as maternal effects can modulate those interactions. We try to understand how pine trees tolerate and resist insects and pathogens, joining approaches from quantitative genetics, evolutionary ecology, forest pathology, chemical ecology and forestry.

Prof Fred Asiegbu

Forest Tree Mycobiome: Friends or Foes

Professor of Forest Pathology at the Department of Forest Sciences, University of Helsinki, Finland. His research interests are broad and diverse and includes among others; Molecular tree-microbe interactions, forest tree microbiome, fungal genomics and population biology, biocontrol of forest pathogens, infection biology of phytopathogenic fungi and resistance biology of forest trees. More specific goals have been deciphering fungal pathogenicity factors by functional analysis of effector-like proteins of tree pathogenic fungi. A further research objective explores the impact of forest microbiome on tree health.

9.30 am – 17.15 pm **LG12 Old Gym**, University of Birmingham

Supported by:



EMBASSY
OF SPAIN
LONDON



Organized by:



UNIVERSITY OF
BIRMINGHAM

Session III: Research in Tree Pathology

Dr Hans Hoenicka

Priming-based approaches for resistance induction in forest trees species

Dr Hoenicka has been working on tree genomics, biotechnology and biosafety for many years. The development of strategies for a faster forest tree breeding is his most important research line. One highlight of his work was the development of the only functional early flowering system for poplars so far. This system allows shortening the reproductive phase from many years to only six months. He is evaluating the application of abiotic and biotic priming for resistance induction in tree species. Priming-based approaches in ash and elms against the ash dieback and the Dutch elm disease are currently his main research area.

Prof Alejandro Solla

Quantifying disturbance and resilience of Quercus ilex forests in response to global change stressors

Alejandro Solla has experience of about 20 years of teaching and 25 of research focusing on the study of pathology of trees. Primary interests lie in how the host trees respond to infection, with a view to finding provenances and genotypes that may be less susceptible to pathogens and could be used in forestry in the face of attack by alien invasive pathogens. He is having extensive collaborations within EU projects and networks, and techniques in use include a range of methods.

Dr Benoit Marcais

Landscape epidemiology of Hymenoscyphus fraxineus (ash dieback disease)

After a PhD at the INRA of Bordeaux on the influence of environmental conditions on the ink disease of oak (*Phytophthora cinnamomi*) obtained in 1992, Benoit Marcais was hired in the laboratory of forest Pathology of INRA-Nancy to work on involvement of rot root in oak decline (*Collybia fusipes*, *Armillaria gallica*). In the early 2000 he started to investigate the role of climate change on the emergence of forest diseases in France. In the last 10 years, the focus has been on the dispersal and impact of invasive forest pathogens such *Hymenoscyphus fraxineus*.

Prof Sandra Denman

To be confirmed

Supported by:



Organized by:



UNIVERSITY OF
BIRMINGHAM