



EPSO workshop

“Environmental plant biology; molecular and ecological aspects of adaptation of plants to beneficial and pathogenic agents”

Amsterdam, Royal Dutch Academy of Arts and Sciences
Trippenhuis, Kloveniersburgwal 29

21 November – 22 November 2005



European Plant
Science Organisation

Program

Aim: Bring together a small group of European Scientists to discuss and exchange ideas on future directions of research on molecular and ecological aspects of adaptation of plants to beneficial and pathogenic agents” and its possible applications for sustainable production of food and feed crops.

After the meeting a white paper should be produced by the participants that will aid EPSO to suggest new directions in research within Europe at European and national level, such as the Strategic Research Agenda “Plants for the Future”.

Size of the meeting: 20-25 scientists

Monday 21 November 2005

9.15 – 9.30 **Pierre de Wit and co-organisers: “Introduction to the workshop”**

9.30-10.30 **Theme 1: Interactions between plants, arbuscular and ectomycorrhiza**

Speakers

Francis Martin, Nancy, France

From functional genomics to environmental genomics of ectomycorrhizal symbiosis: bridging the gap

Paola Bonfante, Turino, Italy

Roots, AM fungi and endobacteria: multiple interactions in the rhizosphere

10.30-11.00 **Coffee break**

11.00-12.30 **Theme 2: Interactions between plants and nitrogen fixing communities**

Speakers

Jens Stougaard, Aarhus, Denmark

Rhizobium-legume symbiosis

Katharina Pawlowski, Stockholm, Sweden

Nitrogen fixation outside the legumes

Alfred Puehler, Bielefeld, Germany

Ecology and molecular evolution of alfalfa nodulating *Sinorhizobium meliloti* strains

12.30-13.30 **Lunch**

13.30-15.00 **Theme 3: Interactions between plants and plant growth stimulating bacteria and fungi**

Speakers

Jos Vanderleijden, Leuven, Belgium

Rhizosphere bacterial signalling: A love parade beneath our feet

Jos Raaijmakers, Wageningen, The Netherlands

Cyclic lipopeptide surfactants: versatile molecules in the interactions between beneficial bacteria, fungal pathogens and plants

Matteo Lorito, Portici, Italy

	Biological control with non-pathogenic fungi
15.00-15.30	Coffee break
15.30-17.00	Theme 4: Interactions between plants and pathogenic bacteria
	Speakers
	Ulla Bonas , Halle, Germany <i>Xanthomonas campestris</i> pv. <i>vesicatoria</i> interaction with the host plant
	John Mansfield , London, UK Bacterial virulence and basal resistance – lessons from <i>Pseudomonas syringae</i>
	Christian Boucher , Castanet tolosan, France Integrated approach of <i>Ralstonia solanacearum</i> pathogenicity determinants and of their plant targets
17.00-18.00	Refreshments
20.00	Dinner
Tuesday	22 November 2005
9.00-10.30	Theme 5: Interactions between plants and pathogenic fungi
	Speakers
	Marc-Henry Lebrun , Lyon, France <i>Magnaporthe grisea</i> -rice interactions
	James Brown , Norwich, UK Fitness costs of resistance and pathogenicity in fungal diseases of cereals
	Jane Parker , Cologne, Germany Intersection of obligate biotrophs with multi-layered plant defence
10.30-11.00	Coffee break
11.00-12.00	Theme 6: Interactions between plants and pathogenic nematodes
	Speakers
	Wim van der Putten , Heteren, The Netherlands Plant adaptation to parasitic nematodes in a multitrophic environment
	Pierre Abad , Sofia Antipolis, France Root-knot nematode parasitism and plant host response
12.00-13.00	Lunch
13.00-14.00	Theme 7: Multitrophic interactions between plants and biotic agents
	Speakers:
	Philippe Reymond , Lausanne, Switzerland Transcriptional responses of <i>Arabidopsis</i> after herbivore attack
	Marcel Dicke , Wageningen, The Netherlands Multitrophic interactions in plant-pathogen-herbivore systems
14.00-15.00	Summarising discussion and plans for the future
15.00-15.30	Coffee Break
15.30-17.00	Writing of a draft white paper on “Environmental plant biology; molecular and ecological aspects of adaptation of plants to beneficial and pathogenic agents” and their possible applications for sustainable production of feed and food.
17.00	Departure