

COST FA 1208

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Pathogen-informed strategies for sustainable
broad-spectrum crop resistance

Workshop on experimental approaches for the
investigation of effector function

10th – 12th February 2015, Tel Aviv University,
Tel Aviv, Israel



Tuesday 10th February

Session 1: Protein-protein interaction analysis

Chair: G. Sessa

8:50-9:00 Opening remarks

9:00-9:45 **C. LURIN**, Yeast two-hybrid interaction mapping

9:45-10:30 **S. CUNNAC**, *Pseudomonas syringae* pv. *tomato* type III effector proteins binding partners identified in the defense-induced tomato proteome

Coffee break

10:30-11:00

11:00-11:45 **S. POPESCU**, An *in vivo* large-scale approach for the characterization of host-pathogen interactions

11:45-12:00 **B. SABELLECK**, Investigation of physical interactions between nonhost resistance proteins of barley and candidate secreted effector proteins from *Blumeria graminis* f.sp. *hordei*

12:00-12:15 **D. ORTIZ**, Functional analysis of the *Magnaporthe oryzae* effector protein AVR-Pia

12:15-12:30 **A. STIRNBERG**, Characterization of a novel effector gene essential for colonization of *Zea mays* by the smut *Ustilago maydis*

Lunch

12:30-14:00

Session 2: PTI/ETI suppression by pathogen effectors

Chair: F. Brunner

14:00-14:45 **F. BRUNNER**, PTI/MTI suppressor screens in protoplasts

14:45-15:30 **H. THORDAL-CHRISTENSEN**, Searching for effector targets in cereals

Coffee break

15:30-16:00

16:00-16:30 **G. SESSA**, Screening for *Xanthomonas campestris* type III effectors that suppress cell death associated with plant immunity

16:30-17:00 **F. BORNKE**, The *Xanthomonas campestris* type III effector Xopl proteolytically degrades proteasome subunit RPT6 to inhibit proteasome-mediated turnover of NPR1

17:00-17:15 **E. ROJAS**, Fungal LysM effectors: more than pathogen tools for host modulation

17:15-17:30 **Y. PETIT**, A two genes – for – one gene interaction between *Leptosphaeria maculans* and *Brassica napus*

17:30-17:45 **G. POPOV**, Identification of *Xanthomonas campestris* type III effectors that suppress PTI signaling

Dinner in Tel Aviv

18:00-21:00

Wednesday 11th February

Session 3: Identification of non-immunity related virulence targets

Chair: B. Szurek

8:30-9:00 **S. BURDMAN**, Genetic and functional analyses of *Acidovorax citrulli* effectors

9:00-9:30 **B. SZUREK**, TAL effectors targets: uncovering new host disease susceptibility determinants

Coffee break

9:30-10:00

10:00-10:15 **C. LOPEZ**, RNAseq analysis of cassava reveals similar plant responses upon infection with pathogenic and non-pathogenic strains of *Xanthomonas axonopodis* pv. *manihotis*

10:15-10:30 **Y. ZHAO**, Identification and functional characterization of a virulence effector of *Sporisorium reilianum*

10:30-10:45 **S. EVES-VAN DEN AKKER**, Identification and characterisation of a hyper variable apoplastic effector gene family of the potato cyst nematodes

10:45-11:00 **T. TU**, Functional analysis of the TALome of an African *Xanthomonas oryzae* strain reveals a new susceptibility gene candidate for bacterial leaf blight

Poster session & Lunch

11:00-12:00

Trip to Jerusalem (departure at 12:00) / Dinner in Abu Gosh

Thursday 12th February

Session 4: Innovative strategies to identify effector functions and targets

Chair: M. Valls

9:00-9:45 **M. VALLS**, Expression of effectors in yeast as heterologous system

9:45-10:30 **A. SAVIDOR**, Global and targeted proteomics for exploration of plant pathology

Coffee break

10:30-11:00

11:00-11:15 **M. EBERT**, Characterization of a novel *Cercospora beticola* effector protein

11:15-11:30 **F. NAVARRETE**, Functional screen of *Ustilago maydis* effector function

11:30-11:45 **A. SIWOSZEK**, Targeting barley powdery mildew effectors by peptide aptamers

11:45-12:00 **M. QUENTIN**, Characterization of *Meloidogyne incognita* nuclear effectors and identification of their plant targets

12:00-12:15 **Concluding remarks**

Lunch

12:15-14:00

Departure to the airport