

A three day international conference - Advances in Plant Virology

in conjunction with the
Society for General Microbiology

PROGRAMME

(BASIS Points have been applied for)

WEDNESDAY 1 APRIL 2009

12.30 Onwards CONFERENCE REGISTRATION

14.00 – 15.40 Chair: JOHN WALSH (University of Warwick, UK)

14.00 – 14.40 *Invited Speaker*
Tombusvirus-plant interactions: RISCy business
HERMAN SCHOLTHOF (Texas A&M University, USA)

14.40 – 15.00 The effects of CaMV Integration in Arabidopsis on the growth and fecundity of plants and the stability and expression of a GFP transgene
JULIE SQUIRES & PETER PALUKAITIS (Scottish Crop Research Institute, UK)

15.00 – 15.20 Exploiting the genetic diversity of natural barley germplasm for the discovery of novel eIF4E alleles conferring broad spectrum resistance to bymoviruses
BERNHARD J HOFINGER, CHRIS BASS, THOMAS BALDWIN, FREDERIC BEAUDOIN, KIM HAMMOND-KOSACK & KOSTYA KANYUKA (Rothamsted Research, UK)

15.20 – 15.40 Complete sequence and molecular analysis of a German isolate of apple stem grooving capillovirus
THIERRY WETZEL, ANNERIE LIEBENBERG, ALEXANDER KAPPIS, GABRIELE KRCZAL & WOLFGANG JARAUSCH (RLP Agrosociences, Germany)

15.40 -16.00 TEA

16.00 – 18.00 Chair: GEORGE LOMONOSSOFF (John Innes Centre, UK)

16.00 – 16.20 Live-cell imaging of viral RNA genomes using a Pumilio-based reporter
JENS TILSNER, OLGA LINNIK, NYNNE M CHRISTENSEN, KAREN BELL, IAN M ROBERTS, CHRISTOPHE LACOMME & KARL J OPARKA (University of Edinburgh, UK)

16.20 – 16.40 Detection and molecular epidemiology of Oat sterile dwarf virus
JON N E RAMSELL, ANNA LINNELL, INGRID ERIKSSON, JOHANNA HOLMBLAD, BARBARA EKBOM & ANDERS KVARNHEDEN (Uppsala Bio-Center, Sweden)

16.40 – 17.00 Proteolytic processing of the Cowpea Mosaic Virus coat polyprotein precursor and formation of virus-like particles in insect cell culture
KEITH SAUNDERS & GEORGE P LOMONOSSOFF (John Innes Centre, UK)

17.00 – 17.20 Incidence and occurrence of dsRNA elements in the opportunistic fungal pathogen *Aspergillus fumigatus*
ROBERT H A COUTTS, ATIF JAMAL, MUHAMMAD FARAZ BHATTI & ELAINE M. BIGNELL (Imperial College, London, UK)

17.20 – 17.40 Specialization of a phytovirus to its environment: experimental evidence for a cost of adaptation
CHIRAZ JRIDI, SARAH LEON, JEAN-LUC MACIA, YVON MICHEL & REMY FROISSART (Biologie et Génétique des interactions Plante/Parasite (BGPI), France)

17.40 – 18.00 Tomato torrado virus and tomato marchitez virus, new plant picorna like viruses infecting tomato
MARTIN VERBEEK, ANNETTE DULLEMANS, PAUL MARIS, JOHANNES van den HEUVEL & RENÉ van der VLUGT (Plant Research International, Netherlands)

THURSDAY 2 APRIL 2009

08.30 REGISTRATION & COFFEE

09.00 – 10.40 Chair: STUART MacFARLANE (SCRI, Dundee, UK)

09.00 – 9.40 *Invited Speaker*
Both plant and insect factors are specifically required for the success of CaMV spread through vector transmission. STÉPHANE BLANC (UMR BGPI, INRA-CIRAD-ENSAM, Montpellier, France)

09.40 – 10.00 Efficient *in vivo* system to study the homologous recombination mechanism of potato virus X - evidence for a predicted stem-loop structure determinant
MARK VARRELMANN & HEIDRUN-KATHARINA DRAGHICI (Inst of Sugar Beet Research, Germany)

10.00 – 10.20 Nucleotide bias in plant virus induced gene silencing
THIEN HO (NERC Centre for Ecology and Hydrology, UK)

10.20 – 10.40 Plant DNA viruses being silenced and suppressing silencing
THOMAS HOHN (University of Basel, Switzerland)

10.40 – 11.00 COFFEE

11.00 – 14.00 Chair: MARUTHI GOWDA (University of Greenwich, UK)

11.00 – 11.20 Extreme resistance to potyviruses in edible diploid potatoes of the Phureja-Stenotomum group
LESLEY TORRANCE (Scottish Crop Research Institute, UK)

11.20 – 11.40 A metagenomics approach for the identification and genome sequencing of plant viruses
RACHEL GLOVER, IAN ADAMS, WENDY MONGER & NEIL BOONHAM (Central Science Laboratory, York, UK)

11.40 – 12.00 The control of PVY in Dutch seed potato culture
GÉ VAN DEN BOVENKAMP, CHRIS CUPERUS, EISSE DE HAAN, PAUL PIRON, MARTIN VERBEEK & RENÉ VAN DER VLUGT (Plant Research International, Netherlands)

12.00 – 12.20 The aphid transmission of Potato virus YO, Potato virus YN and Potato virus A under Scottish field conditions
ADRIAN FOX, FIONA HIGHET & JON PICKUP (Scottish Agricultural Science Agency, UK)

12.20 – 12.40 Role of TGB1 in the cell-cell and long-distance movement of Potato mop-top virus
ALISON ROBERTS, GRAHAM COWAN, EUGENE SAVENKOV, ANGELIKA ZIEGLER, SEAN CHAPMAN, KATH WRIGHT & LESLEY TORRANCE (Scottish Crop Research Institute, UK)

12.40 – 13.00 Molecular determinants of the sweet potato virus disease (SPVD)
JARI VALKONEN, MINNA-LIISA RAJAMÄKI, WILMER C CUELLAR, KARIN REGINA, MILTON UNTIVEROS & JAN F KREUZE (University of Helsinki, Finland)

13.00 – 14.00 LUNCH

14.00 – 17:20 Chair: RENE van der VLUGT (Plant Research International, Netherlands)

14.00 – 14.40 *Invited Speaker*

Virus-resistant transgenic plants and potential risks associated with recombination
ARIANNA FRISCINA, MARCO MORRONI, CAMILLA TURTURO, LAURA CHIAPPETTA,
JEREMY R. THOMPSON, MIREILLE JACQUEMOND & MARK TEPFER (ICGEB Biosafety
Outstation, Italy)

Student Presentations

14.40 – 14.50 **Types of RNA2 and RNA3 of Potato mop-top virus in symptomless and spraing-expressing potato tubers**

JOHANNA MAURA, SATU LATVALA-KILBY, NEDA PUPOLA,
ASKO HANNUKALA & JARI P T VALKONEN (University of Helsinki, Finland)

14.50 – 15.00 **Potato mop-top virus in Sweden**

ULRIKE BEUCH, JONAS ÅKERBLOM, PAULA PERSSON & ANDERS KVARNHEDEN (Uppsala
Bio-Centre, Sweden)

15.00 – 15.10 **Arabis mosaic nepovirus and gene silencing**

LAURENCE DUPUIS (Institute for Plant Research, Germany)

15.10 – 15.20 **An evolutionary experimental approach to identify resistance breaking strains of *Bean yellow mosaic virus* in *Pisum sativum***

KAMILLA KNORR & ELIZABETH JOHANSEN (Univ. of Aarhus & Univ. of Copenhagen, Denmark)

15.20 – 15.30 **Cooperation between plant enemies - do raspberry viruses attract more aphid vectors?**

LINDSAY McMENEMY, S A MACFARLANE, S E HARTLEY & S N JOHNSON (Scottish Crop
Research Institute, Dundee, UK)

15.30 – 15:50 TEA

15.50 – 16.00 **A role for inositol hexakisphosphate in the maintenance of basal resistance to viruses and other pathogens**

BETTINA OTTO, ALEX M MURPHY, CHARLES A BREARLEY & JOHN P CARR (University of
Cambridge, UK)

16.00 – 16.10 **Molecular genetic analysis of beet polerovirus infection**

LAWRENCE PERCIVAL-ALWYN, PHILIPPA HALLSWORTH, FELICITA VIGANÓ,
MARK STEVENS & COLWYN M THOMAS (University of East Anglia, UK)

16.10 – 16.20 **Interactions between begomovirus, DNA and host in susceptible and resistant cotton species**

MUHAMMAD NAEEM SATTAR, MUHAMMAD SAEED & ANDERS KVARNHEDEN (Uppsala
Bio-Centre, Sweden)

16.20 – 16.30 **A plant virus movement protein forms ringlike complexes with the major nucleolar protein, fibrillarin, *in vitro***

JANE SHAW, ELISABETTA CANETTA, SANG HYON KIM, NATALIA O KALININA, ASHOK K
ADYA, JOHN W S BROWN & MICHAEL TALIANSKY (Scottish Crop Research Institute, UK)

16.30 – 16.40 **Virus-like particle production using a Cowpea Mosaic Virus-based vector system**

EVA THUENEMANN & GEORGE P LOMONOSSOFF (John Innes Centre, UK)

16.40 – 16:50 **Plant-virus-insect interactions: a new role for the 2b protein of cucumber mosaic virus?**

JACK WESTWOOD, MATTHEW LEWSEY, HEIKO ZIEBELL, DANIEL MACLEAN, ADAM
KLECZKOWSKI, MARK STEVENS, JOHN A WALSH & JOHN P CARR (Univ. of Cambridge, UK)

16.50 – 17.20 **A discussion on the future direction of plant virology**

ANDY MAULE (John Innes Centre, UK)

17.20 – 18.30 POSTERS

Detection and diagnosis of viruses, viroids and phytoplasmas in interesting or unusual hosts at the Virology plant clinic, Central Science Laboratory

VAL HARJU, ANNA SKELTON, WENDY MONGER, STEPHEN FORDE, MARK DALY, THOMAS NIXON, REBECCA
LAWSON, SAMANTHA BENNET, PAUL TAYLOR, ADRIAN FOX (Central Science Laboratory, UK)

Possible role of Brassica rapa translation initiation factors in broad-spectrum resistance to Turnip mosaic virus

CAROL JENNER, GUY BARKER & JOHN WALSH (University of Warwick, UK)

Screening for Mushroom Virus X

TOM NIXON (Central Science Laboratory, UK)

Overexpression of NtERF5 enhances resistance against TMV in N gene tobacco

JU-YEON YOON, SEUNG-KOOK CHOI & KI HYUN RYU (Seoul Women's University, Korea)

Pepino mosaic virus: epidemiology, economic impact and pest risk analysis (PEPEIRA)

RENÉ A A VAN DER VLUGT (Plant Research International, The Netherlands)

Applying P25 pathogenicity factor of beet necrotic yellow vein virus in yeast two-hybrid interaction hunt on the Rz2 sugar beet proteome identifies several candidate proteins possibly involved in virus pathogenicity or plant resistance

MARK VARRELMANN (Institute of Sugar beet Research, Germany) & HEIKE THIEL (University of Göttingen,
Germany)

Validation of diagnostic methods for the detection and identification of whitefly transmitted viruses of regulatory or quarantine concern to the EU.

J MORRIS, W A MONGER & N BOONHAM (Central Science Laboratory, UK)

Genome-wide miRNA profiling reveals a distinct pattern of miRNA expression in rice infected with a dsRNA virus

HENGMU ZHANG, JIAN YANG & JIAN-PING CHEN (Institute of Virology and Biotechnology, China)

Student Posters

Detection of *Begomovirus* and molecular characterization of whitefly populations from greenhouses in Cartago, Costa Rica

JOSÉ ANDRÉS VARGAS ASECIO (Universidad de Costa Rica, Costa Rica)

Genetic and biological diversity of cassava brown streak virus

MUSA ABARSHI, I U MOHAMMED, S E SEAL, M N MARUTHI (University of Greenwich, UK)

The incidence and diversity of Turnip yellows virus in oilseed rape in the UK

ELVIS ASARE-BEDIAKO, CAROL JENNER, MARK STEVENS & JOHN WALSH (University of Warwick, UK)

Differentiation of Cucumber *mosaic virus* isolates from *Musa* spp and associated crops in southern Nigeria

EMILY AYO-JOHN, EPHRAIM EKPO & JACKIE HUGHES (University of Agriculture, Nigeria)

***Crinivirus* and *Begomovirus* in single and mixed infections affecting important crops in Cartago, Costa Rica**

RUTH CASTRO VÁSQUEZ (Universidad de Costa Rica, Costa Rica)

Molecular characterisation of *begomoviruses* in tomato fruits

KADRI JUST, WALTER N LEKE, ANDERS KVARNHEDEN & ANNE LUIK (Estonian University of Life Sciences
(EMÜ), Estonia)

