

## *Tentative Programme*

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### 5<sup>th</sup> joint meeting of the DPG working group „Viruskrankheiten der Pflanzen“ and the “Nederlandse Kring voor Plantevirologie”, 8<sup>th</sup> to 9<sup>th</sup> April Hamburg

Wednesday 8. April 2009	
8:00 – 9:00	<b>Registration, Poster up</b>
9:00 – 9:20	<b>Introductory remarks, Stephan Winter &amp; Günter Adam</b>
9:20 – 12:00	<b>Virus and viroid characterization</b> Moderation: R. van der Vlugt
9:20 – 09:40	<b>Biosafety in Europe</b> <u>B. J.M. Verduin</u> Wageningen University and Research Centre, Binnenhaven 11, 6709 PD Wageningen, The Netherlands
9:40 – 10:00	<b>Nucleotide sequence of an aphid-transmissible potexvirus from parsley and construction of an infectious full-length cDNA clone</b> <u>W. Menzel</u> <sup>1</sup> , E. Maiss <sup>1</sup> , K. Richert-Poeggeler <sup>2</sup> and H.J. Vetten <sup>2</sup> <sup>1</sup> Leibniz University of Hannover, Institute of Plant Diseases and Plant, Hannover; <sup>2</sup> Julius Kuehn Institute, Institute of Epidemiology and Pathogen Diagnostics, Braunschweig
10:00 – 10:20	<b>Cloning and phylogenetic analyses of putative plant cryptic viruses</b> <u>T. Lesker</u> <sup>1</sup> , T. Myrach <sup>1</sup> , W. Menzel <sup>1</sup> , H.-J. Vetten <sup>2</sup> , E. Maiss <sup>1</sup> <sup>1</sup> Leibniz Universität Hannover, Inst. Pflanzenkrankheiten und Pflanzenschutz, Herrenhäuser Str. 2, 30419 Hannover, Germany. <sup>2</sup> Julius-Kühn Institut, Bundesforschungsinstitut für Kulturpflanzenforschung - Institut für Epidemiologie und Pathogendiagnostik, Messeweg 11/12, 38104 Braunschweig, Germany
10:20 – 10:40	<b>Detection of defective forms of Barley dwarf virus</b> <u>J. Schubert</u> <sup>1</sup> , A. Habekuss <sup>2</sup> , Y. Quian <sup>3</sup> <sup>1</sup> JKI, Institute of Biosafety of Genetically Modified Transgenic Plants and <sup>2</sup> Institute of Resistance Research and Stress Tolerance, <sup>3</sup> Sheijiang University China, Institute of Biotechnology
10:40 – 11:00	<b>Coffee break</b>
	Moderation: S. Winter
11:00 – 11:20	<b>A distinct tospovirus species infecting <i>Alstroemeria</i> sp. in Colombia</b> A. Hassani-Mehraban <sup>1</sup> , <u>M. Botermans</u> <sup>2</sup> , K. Verhoeven <sup>2</sup> , E. Meekes <sup>3</sup> , J. Saaijer <sup>1</sup> , R. Goldbach <sup>1</sup> and R. Kormelink <sup>1</sup> <sup>1</sup> Laboratory of Virology, Wageningen University, 6709 PD, Wageningen, The Netherlands <sup>2</sup> Plant Protection Service, P.O. Box 9102, 6700 HC Wageningen, The Netherlands <sup>3</sup> Naktuinbouw, P.O. Box 40, 2370 AA Roelofarendsveen, The Netherlands

11:20 – 11:40	<p><b>Pepper chat fruit viroid: biological and molecular characterization of a new viroid species from <i>Capsicum annuum</i></b></p> <p><u>J.Th.J. Verhoeven</u><sup>1</sup>, C.C.C. Jansen<sup>1</sup>, J.W. Roenhorst<sup>1</sup>, M. de la Peña<sup>2</sup> and R. Flores<sup>2</sup></p> <p><sup>1</sup> Plant Protection Service, Wageningen, The Netherlands  <sup>2</sup>Instituto de Biología Molecular Celular de Plantas (UPV-CSIC), Universidad Politécnica de Valencia, Valencia, Spain</p>
11:40 – 12:00	<p><b>Cassava brown streak virus: A new Ipomovirus with unusual genome features</b></p> <p><u>S. Winter</u></p> <p>DSMZ-Deutsche Sammlung von Mikroorganismen und Zellkulturen, Abteilung Pflanzenviren, Inhoffen Straße 7b, 38124, Germany.</p>
12:00 – 13:10	<b>Lunch</b>
13:10 – 14:30	<b>Occurrence of viruses and viroids</b> Moderation: H.- J. Vetten
13:10 – 13:30	<p><b>Transmission of Tulip breaking virus by aphids in tulip: invisible risks require adapted risk monitoring and crop protection strategies.</b></p> <p><u>M. de Kock</u><sup>1</sup>, I. Stijger<sup>1</sup>, M. Lemmers<sup>1</sup>, K. Pham<sup>1</sup>, M. van Dam<sup>1</sup></p> <p><sup>1</sup>Wageningen UR – Applied Plant Research, The Netherlands</p>
13:30 – 13:50	<p><b>Epidemiological evidence that vegetatively-propagated solanaceous plant species act as sources of <i>Potato spindle tuber viroid</i>-inoculum for tomato</b></p> <p>J.Th.J. Verhoeven, M. Botermans, C.C.C. Jansen &amp; <u>J.W. Roenhorst</u>*</p> <p>*Plant Protection Service, PO Box 9102, 6700 HC Wageningen, the Netherlands</p>
13:50 – 14:10	<p><b>Pepino mosaic virus: epidemiology, economic impact and pest risk analysis (PEPEIRA)</b></p> <p><u>R. A.A. van der Vlugt</u><sup>1</sup></p> <p><sup>1</sup>Plant Research International, P.O. Box 16, NL-6700 AA Wageningen, The Netherlands</p>
14:10 – 14:30	<p><b>Occurrence of <i>Iris yellow spot virus</i> in the Dutch onion crops and confirmation of transmission by <i>Thrips tabaci</i>.</b></p> <p><sup>1</sup>K. Hoedjes, <sup>2</sup>K.Verhoeven, <sup>1</sup>R. Goldbach and <sup>1</sup>D. Peters</p> <p><sup>1</sup>Laboratory of Virology, Wageningen University, Binnenhaven 11, 6709 PD Wageningen  <sup>2</sup>Plant Protection Service, Postbus 9102, 6700 HC Wageningen, The Netherlands</p>
14:30 – 16:30	<b>Poster session</b>

<b>16:30 – 17:10</b>	<b>Virus technologies</b> Moderation: G. Adam
16:30 – 16:50	<b>Tobacco mosaic virus surface mutants for nanotechnology applications</b> F.Geiger <sup>1</sup> , A.Müller <sup>1</sup> , H. Jeske <sup>1</sup> , C. Wege <sup>1</sup> , J. Spatz <sup>2</sup> <sup>1</sup> Universität Stuttgart, Institute of Biology, Department of Molecular Biology and Plant Virology, Pfaffenwaldring 57, 70569 Stuttgart, Germany <sup>2</sup> Max-Planck-Institute for Metals Research, Department of New Materials and Biosystems, Heisenbergstraße 3, 70569 Stuttgart, Germany
16:50 – 17:10	<b>Engineered Tobacco mosaic virus mutants produced in planta exhibit distinct physical characteristics and result in different types of metallization products</b> A. Kadri <sup>1</sup> , E. Maiß <sup>2</sup> , N. Amsharov <sup>3</sup> , S. Balci <sup>3</sup> , A.M. Bittner <sup>3</sup> , K. Kern <sup>3</sup> , H. Jeske <sup>1</sup> , C.Wege <sup>1</sup> <sup>1</sup> Universität Stuttgart, Institute of Biology, Department of Plant Molecular Biology and Plant Virology, Pfaffenwaldring 57, 70550 Stuttgart, Germany <sup>2</sup> Leibniz Universität Hannover, Institut für Pflanzenkrankheiten und Pflanzenschutz, Herrenhäuser Straße 2, 30419 Hannover, Germany <sup>3</sup> Max-Planck-Institut für Festkörperforschung, Heisenbergstraße 1, 70569 Stuttgart, Germany
<b>17:10 – 18:10</b>	<b>Resistance</b> Moderation: T. Kühne
17:10 – 17:30	<b>DI DNA mediated resistance against Beet curly top virus (BCTV) in Beta vulgaris</b> <u>J. Horn</u> <sup>1</sup> , B. Schäfer <sup>1</sup> , P. Wyant <sup>1</sup> , B. Krenz <sup>1</sup> , H. Jeske <sup>1</sup> <sup>1</sup> Universität Stuttgart, Biologisches Institut, Abteilung Molekularbiologie und Virologie der Pflanzen, Pfaffenwaldring 57, 70550 Stuttgart, Deutschland
17:30 – 17:50	<b>RNAi-mediated resistance to Potato spindle tuber viroid in transgenic tomato expressing the viroid hairpin DNA construct</b> <u>G. Krczal</u> <sup>1</sup> , N. Schwind <sup>1</sup> , M. Zwiebel <sup>1</sup> , A. Itaya <sup>2</sup> , B. Ding <sup>3</sup> , M.-B. Wang <sup>4</sup> , M. Wassenegger <sup>1</sup> <sup>1</sup> RLP Agrosience GmbH, AIPlanta-Institute for Plant Research, Breitenweg 71, 67435 Neustadt Germany <sup>2</sup> Department of Plant Cellular and Molecular Biology and Plant Biotechnology Center, Ohio State University, Columbus, Ohio, USA <sup>3</sup> Department of Plant Cellular and Molecular Biology and Plant Biotechnology Center, Ohio State University, Columbus, Ohio, USA <sup>4</sup> CSIRO Division of Plant Industry, PO Box 1600, Canberra, ACT 2601, Australia

17:50 – 18:10	<p><b>RNAi-mediated transgenic tospovirus resistance broken by intraspecies NSS complementation</b></p> <p><u>A. Hassani-Mehraban</u><sup>1</sup>, A. B. Brenkman<sup>2</sup>, N. J. F. van den Broek<sup>2</sup>, R. Goldbach<sup>1</sup> and R. Kormelink<sup>1</sup></p> <p><sup>1</sup>Laboratory of Virology, Wageningen University, Binnenhaven 11, 6709 PD Wageningen, The Netherlands; <sup>2</sup>Department of Metabolic and Endocrine Diseases and Netherlands Metabolomics Centre, University Medical Centre, 3508 AB, Utrecht, The Netherlands</p>
<b>18:10 – 18:40</b>	<b>Societies business hour</b>
<b>19:30 -</b>	<b>Dinner</b>

<b>Thursday 9. April 2009</b>	
<b>8:30 – 12: 15</b>	<p><b>Gene function</b></p> <p>Moderation: H. Jeske</p>
8:30 – 8:50	<p><b>Protein-protein interaction screen of a sugar beet cDNA library with the beet necrotic yellow vein virus pathogenicity factor P25 identifies proteins possibly involved in virus pathogenicity and plant resistance response</b></p> <p><u>H. Thiel</u><sup>1</sup> and M. Varrelmann<sup>1</sup></p> <p><sup>1</sup> Institute of Sugar Beet Research, Department of Phytopathology, Holtenser Landstr. 77, D-37079 Göttingen, Germany</p>
8:50 – 9:10	<p><b>The potato virus X replicase linker region between methyltransferase and helicase domain is involved in RNA recombination</b></p> <p>H.-K. Draghici<sup>1</sup> and <u>M. Varrelmann</u><sup>1,2</sup></p> <p><sup>1</sup> Department of Crop Sciences, Section Plant Virology, University of Göttingen, Grisebachstrasse 6, D-37077 Göttingen, Germany</p> <p><sup>2</sup> Institute of Sugar Beet Research, Department of Phytopathology, Holtenser Landstr. 77, D-37079 Göttingen, Germany</p>
9:10 – 9:30	<p><b>A single C/U nucleotide substitution changing alanine to valine in the <i>Beet necrotic yellow vein virus</i> P25 protein promotes increased virus accumulation in roots of mechanically inoculated, partially resistant sugar beet seedlings</b></p> <p><u>R. Koenig</u><sup>1</sup>, S. Loss<sup>2</sup>, J. Specht<sup>2</sup>, M. Varrelmann<sup>3</sup>, P. Lüddecke<sup>2</sup> and G. Deml<sup>2</sup></p> <p><sup>1</sup> c/o JKI Braunschweig, <sup>2</sup> JKI Braunschweig, <sup>3</sup> Institut für Zuckerrübenforschung, Göttingen</p>
9:30 – 9:50	<p><b>Similarities in the capsnatching mechanism of Tomato spotted wilt virus and Influenzavirus during genome transcription</b></p> <p><u>C. Geerts-Dimitriadou</u><sup>1</sup>, R. Goldbach<sup>1</sup>, and R. Kormelink<sup>1</sup></p> <p><sup>1</sup>Laboratory of Virology, Wageningen University, Binnenhaven 11, 6709 PD Wageningen, Netherlands</p>

9:50 – 10:10	<b>Coffee break</b>
Moderation: R. Kormelink	
10:10 – 10:30	<p><b>A plastidal heat shock cognate 70 kDa protein interacts with <i>Abutilon mosaic virus</i> movement protein and affects viral DNA accumulation</b></p> <p>B. Krenz<sup>1</sup>, V. Windeisen<sup>1,†</sup>, C. Wege<sup>1</sup>, H. Jeske<sup>1</sup>, <u>Tatjana Kleinow</u><sup>1</sup></p> <p><sup>1</sup>Institute of Biology, Department of Molecular Biology and Plant Virology, Universität Stuttgart, Pfaffenwaldring 57, 70550 Stuttgart, Germany;  <sup>†</sup> Present address: Biochemistry Center (BZH), Heidelberg University, Im Neuenheimer Feld 328, 69120 Heidelberg, Germany</p>
10:30 – 10:50	<p><b>Plant geminivirus Rep protein interferes with the control of fission yeast cell cycle</b></p> <p>K. Kittelmann<sup>1</sup>, P. Rau<sup>1</sup>, B. Gronenborn<sup>2</sup>, H. Jeske<sup>1</sup></p> <p><sup>1</sup>Universität Stuttgart, Institute of Biology, Department of Molecular Biology and Plant Virology, Pfaffenwaldring 57, 70550 Stuttgart, Germany  <sup>2</sup>Institut des Sciences du Végétal, CNRS, 91198 Gif-sur-Yvette, France</p>
10:50 – 11:10	<p><b>Geminiviral minichromosome dynamics</b></p> <p>T. Paprotka<sup>1</sup>, H. Jeske<sup>1</sup></p> <p><sup>1</sup>Universität Stuttgart, Molekularbiologie und Virologie der Pflanzen, Pfaffenwaldring 57, 70550 Stuttgart</p>
11:10 – 11:30	<p><b>Molecular characterization of a putative PSTVd binding protein, the CDC5 homolog of tomato (SICDC5)</b></p> <p>C. Timmermann<sup>1</sup>, R. Werner<sup>2</sup>, N. Bolle<sup>3</sup>, H.-P. Mühlbach<sup>1</sup></p> <p><sup>1</sup>Universität Hamburg, Biozentrum Klein Flottbek, Ohnhorststrasse 18, 22609 Hamburg  <sup>2</sup>Universität Lübeck, Faculty of Medicine, Ratzeburger Allee 160, 23538 Lübeck  <sup>3</sup>University of Kiel, Institute of Botany and Botanical Garden, Ohlshausenstr. 40, 24098 Kiel</p>
11:30 – 11:50	<p><b>Tenuiviral RNAi suppressor terminates a longstanding enigma: Are human viruses targets of RNAi?</b></p> <p><u>E. Schnettler</u><sup>1</sup>, W. deVries<sup>2</sup>, R. Kormelink<sup>1</sup>, B. Berkhout<sup>2</sup> and R. Goldbach<sup>1</sup></p> <p><sup>1</sup>Laboratory of Virology, Wageningen University, Wageningen, The Netherlands <sup>2</sup>Laboratory of Experimental Virology, Academic Medical Center, University of Amsterdam, Amsterdam, The Netherlands</p>
11:50 – 12:15	<b>Wrap up of the meeting</b>

**Analysis of the hosta virus X (*Potexvirus*, *Flexiviridae*) distribution in infected plants using transmission electron microscopy**

K. Richert-Poeggeler<sup>1</sup>, C. Maass<sup>1</sup>, S. Schuhmann<sup>1</sup>, J. Engelmann<sup>1</sup>, D.-E. Lesemann<sup>1</sup>, K. Kobayashi<sup>2</sup>, B. Lockhart<sup>3</sup>  
<sup>1</sup>Julius Kühn-Institut, Inst. for Epidemiology and Pathogen Diagnostics, D-38104 Braunschweig, Germany  
<sup>2</sup>Iwate Biotechnology Research Center, Dep. of Life Science, Group of Plant Pathology, Kitakami 024-0003, Iwate, Japan  
<sup>3</sup>Univ. of Minnesota, Dep. of Plant Pathology, St. Paul 55108-6030, MN, USA

**Localisation and quantification of all four RNAs of European mountain ash ringspot-associated virus (EMARAV) in mountain ash (*Sorbus aucuparia* L.)**

N. Schlatermund<sup>1</sup>, N. Mielke<sup>1</sup>, H.-P. Mühlbach<sup>1</sup>  
<sup>1</sup>University of Hamburg, Biocentre Klein Flottbek and Botanical Garden, Ohnhorststr. 18, 22609 Hamburg, Germany

**Complete nucleotide sequence of Celery latent virus**

I. Eikenberg<sup>1</sup>, W. Menzel<sup>1</sup>, H.-J. Vetten<sup>2</sup>, and E. Maiss<sup>1</sup>  
<sup>1</sup>Leibniz Universität Hannover, Inst. Pflanzenkrankheiten und Pflanzenschutz, Herrenhäuser Str. 2, 30419 Hannover, Germany. <sup>2</sup>Julius-Kühn Institut, Bundesforschungsinstitut für Kulturpflanzen - Institut für Epidemiologie und Pathogen Diagnostik, Messeweg 11/12, 38104 Braunschweig, Germany

**Optimization of a mRFP-based bimolecular fluorescence complementation system for investigation of Plum pox virus protein interactions in *Nicotiana benthamiana***

E. Scholz and E. Maiss,  
Leibniz Universität Hannover, Inst. Pflanzenkrankheiten und Pflanzenschutz, Herrenhäuser Str. 2, 30419 Hannover, Germany,

**First steps for detection of *Barley yellow dwarf* in aphids**

N. Drechsler<sup>1\*</sup>, Th. Thieme<sup>1</sup>, A. Habekuß<sup>2</sup>, J. Schubert<sup>3</sup>  
<sup>1</sup>BTL Sagerheide and <sup>2</sup>JKI, Institute of Resistance Research and Stress Tolerance and <sup>3</sup>Institute of Biosafety of Genetically Modified Transgenic Plants

**Can dried material from a herbarium serve as source for plant virus RT-PCR and ELISA?**

S. Preuschhof, C. Heinze, P. Willingmann and G. Adam  
Biocenter Klein Flottbek; University of Hamburg

**Interceptions of pospiviroids in solanaceous crops in the Netherlands**

A.W. Werkman, J.Th.J. Verhoeven, and J.W. Roenhorst  
Plant Protection Service, P.O. Box 9102, 6700 HC Wageningen, The Netherlands

**Hairpin structure within the *Tomato yellow ring tospovirus* S RNA segment: a potential target for RNA silencing**

A. Hassani-Mehraban, D. Lohuis, H. Hemmes, R. Goldbach, and R. Kormelink  
Laboratory of Virology, Wageningen University, Binnenhaven 11, 6709 PD Wageningen, the Netherlands

**Some of the variability of Beet necrotic yellow vein virus P25 pathogenicity factor previously allocated to geographically distinct isolates can already be retrieved in single representative A- and B-type soils**

K. Bornemann<sup>1</sup> and M. Varrelmann<sup>1</sup>

<sup>1</sup>Institute of Sugar Beet Research, Department of Phytopathology, Holtenser Landstr. 77, D-37079 Göttingen, Germany

**Cherry leaf roll virus (CLRv) - genome organisation of the RNA1**

S. von Barga<sup>1</sup>, J. Langer<sup>1</sup>, A. Rumbou<sup>1</sup>, J. Gentkow<sup>2</sup>, und C. Büttner<sup>1</sup>

<sup>1</sup>Institute of Horticultural Sciences, Humboldt-Universität zu Berlin, Lentzeallee 55/57, D-14195 Berlin, Germany; <sup>2</sup>present address: Leibniz-Institute of Plant Biochemistry, Weinberg 3, D-06120 Halle, Germany

**Occurrence of EMARAV and CLRv in tree species native to Finland**

N. Arndt<sup>1</sup>, S. von Barga<sup>1</sup>, E. Grubits<sup>1</sup>, R. Jalkanen<sup>2</sup>, C. Büttner<sup>1</sup>

<sup>1</sup>Institute of Horticultural Sciences, Humboldt-Universität zu Berlin, Lentzeallee 55/57, D-14195 Berlin, Germany; <sup>2</sup>Metla, Finnish Forest Research Institute, Rovaniemi, Finland

**Developing of diagnostic multiplex RT-PCR assays for the detection of soil-borne mosaic viruses and their natural vector *Polymyxa graminis***

V. W. Fomitcheva<sup>1</sup>, U. Kastir<sup>1</sup>, A. Habekuss<sup>2</sup> and T. Kuehne<sup>1</sup>

Federal Research Centre for Cultivated Plants – Julius Kühn-Institut, <sup>1</sup>Institute for Epidemiology and Pathogen Diagnostic, <sup>2</sup>Institute for Resistance Research and Stress Tolerance

**Sequencing of apple stem pitting isolates and generation of an infectious full-length cDNA clone**

A. Arntjen<sup>1</sup> and W. Jelkmann<sup>1</sup>

<sup>1</sup>Julius Kühn– Institut, Institut für Pflanzenschutz in Obst- und Weinbau, Dossenheim

**Antiviral RNAi counter defence by ambisense RNA plant viruses**

E. Schnettler<sup>1</sup>, H. Hemmes<sup>1</sup>, R. Huisman<sup>1</sup>, R. Kormelink<sup>1</sup> and R. Goldbach<sup>1</sup>

<sup>1</sup>Laboratory of Virology, Wageningen University, Wageningen, The Netherlands

**Does the TSWV S RNA-encoded hairpin structure play a role in translation?**

C. Geerts-Dimitriadou<sup>1</sup>, R. Goldbach<sup>1</sup>, and R. Kormelink<sup>1</sup>

<sup>1</sup>Laboratory of Virology, Wageningen University, Binnenhaven 11, 6709 PD Wageningen, Netherlands

**A generic (RT)-PCR test for caulimoviruses**

A.M. Dullemans & R.A.A. van der Vlugt

WUR-Plant Research International BV, P.O. Box 16, 6700 AA Wageningen, The Netherlands

**Abutilon mosaic virus as a stable and attenuated vector for virus-induced gene silencing and limited phloem-specific protein expression**

B. Krenz, C. Wege, and H. Jeske

University of Stuttgart, Department of Molecular Biology and Plant Virology, Pfaffenwaldring 57, D-70550 Stuttgart, Germany

**Revision of taxonomy of the virus causing Augusta disease in tulips in The Netherlands.**

K. Pham<sup>1</sup>, M. Lemmers<sup>1</sup>, J. van Doorn<sup>1</sup> and T. Derks<sup>1</sup>.

<sup>1</sup>Wageningen UR – Applied Plant Research, The Netherlands

### **Towards nanoscaled Tobacco mosaic virus-based carrier-rods exposing biological functionalities**

S. Mangold<sup>1</sup>, D. Brodbeck<sup>1</sup>, A. Müller<sup>1</sup>, F. Geiger<sup>1</sup>, A. Kadri<sup>1</sup>, R. Kontermann<sup>2</sup>, H. Jeske<sup>1</sup>, C. Wege<sup>1</sup>  
<sup>1</sup>Universität Stuttgart, Institute of Biology, Department of Molecular Biology and Plant Virology, Pfaffenwaldring 57, 70569 Stuttgart, Germany. <sup>2</sup>Universität Stuttgart, Institute of Cell Biology and Immunology, Allmandring 31, 70569 Stuttgart, Germany

### **Barley Yellow Dwarf Virus detection and assessment of virus spread in susceptible and resistant barley plants**

V. Spamer<sup>1</sup>, C. Obermeier<sup>1</sup>, W. Friedt<sup>1</sup>  
<sup>1</sup>Justus-Liebig-University, Department of Plant Breeding, IFZ Research Center for Biosystems, Land Use and Nutrition, Heinrich-Buff-Ring 26-32, 35392 Giessen, Germany

### **Changes in Barley Proteome after Infection with BYDV**

K. Steckbauer<sup>1</sup>, W. Friedt<sup>2</sup>, A. van Bel<sup>1</sup>  
<sup>1</sup>Institute of General Botany / Plant Cell Biology Research Group, Senckenbergstr. 17, 35390 Giessen, Germany  
<sup>2</sup>Institute of Agronomy and Plant Breeding, Heinrich-Buff-Ring 26-32, 35392 Giessen, Germany

### **Applying of multiplex RT-PCR analysis for the detection of soil-borne viruses in different cereals in the early stages of disease development**

U. Kastirr<sup>1</sup>, V. Fomitcheva<sup>1</sup>, V. Papke<sup>1</sup>, B. Schmiedchen<sup>2</sup>  
<sup>1</sup>JKI, IEP, Erwin-Baur-Straße 27,06484 Quedlinburg, Germany. <sup>2</sup>KWS Lochow GmbH, Zuchtstation Petkus, Merzdorfer Straße 38,15837 Baruth/Mark, Germany

### **Developing of diagnostic multiplex RT-PCR assays for the detection of soil-borne mosaic viruses and their natural vector *Polymyxa graminis***

V. W. Fomitcheva<sup>1</sup>, U. Kastirr<sup>1</sup>, A. Habekuss<sup>2</sup>, T. Kühne<sup>1</sup>  
<sup>1</sup>JKI/IEP, Erwin-Baur-Straße 27,06484 Quedlinburg, Germany. <sup>2</sup>JKI/IRS, Erwin-Baur-Straße 27,06484 Quedlinburg, Germany

### **Phenotypic aberrations caused by Cassava geminiviral RNA silencing suppressors in transgenic *N. benthamiana*.**

S. Naseem, and S. Winter  
DSMZ-Deutsche Sammlung von Mikroorganismen und Zellkulturen, Abteilung Pflanzenviren, Inhoffenstraße 7b, 38124, Germany.

### **Characterisation of the eukaryotic translation initiation factor eIF4E from Cassava genotypes with resistance and susceptibility to Cassava brown streak virus**

M. Kollenberg and S. Winter  
DSMZ-Deutsche Sammlung von Mikroorganismen und Zellkulturen, Abteilung Pflanzenviren, Inhoffen Straße 7b, 38124, Germany.

### **Generation of full infectious virus clones of Sri Lankan cassava mosaic virus and Indian cassava mosaic virus for resistance studies in Cassava**

T. Makesh Kumar<sup>2</sup> and S. Winter<sup>1</sup>  
<sup>1</sup>DSMZ-Deutsche Sammlung von Mikroorganismen und Zellkulturen, Abteilung Pflanzenviren, Inhoffenstraße 7b, 38124, Germany. <sup>2</sup>Central Tuber Crops Institute, Thiruvananthapuram, India