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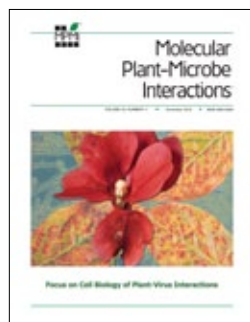
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IS-MPMI Members
Invited to Kyoto!

Ko Shimamoto, chair of the Organizing Committee for the IS-MPMI 2011 XV International Congress, invites all members to attend the 2011 Congress, which will be held for

the first time in East Asia. See page 7 for full details from the chair.

MPMI's Impact Factor on the Rise!



The 2009 Institute for Scientific Information (ISI) Impact Factors were recently released, and *Molecular Plant-Microbe Interactions'* (MPMI's) one-year impact factor rose to 4.407, an increase of nearly 6.6%! According to Thomson Reuter's *Journal Citation Reports (JCR)*, which publishes the ISI Impact Factors, a journal's impact factor is the average number of times its recent articles were cited in the *JCR* cover year. Recent articles are those published in the two years preceding the *JCR* cover year. Impact factors are calculated yearly for those journals that are indexed in *JCR*. The impact factor is useful in understanding the significance of absolute citation frequencies. A separate calculation is a journal's five-year impact factor. MPMI's five-year impact factor made an impressive increase of more than 12.5% to 4.844. Thank you to all journal authors, reviewers, and editors! Your efforts contribute to the continued success of the journal. Become a part of the success story, publish in MPMI. ■

MPMI Focus Issue Editorial Overview:
Cell Biology of Plant-Virus Interactions

MPMI Senior Editors John P. Carr and Biao Ding



John Carr



Biao Ding

Viral infection has long been a powerful experimental system for fundamental discoveries in biology, ranging from molecular mechanisms of gene expression at the cellular level to cell-to-cell communication at the organismal level. In early molecular studies on plant viral infection, the central focus was on the identification of viral factors responsible for replication, cell-to-cell and long-distance movement, elicitation of plant defense responses, and induction of symptoms. Findings from these studies laid the foundation for subsequent investigations of the host factors involved in these processes. The research discoveries themselves and the cutting-edge multidisciplinary research tools that were developed have firmly established the cell biology of plant-virus interactions as a vibrant field of current biological research. They have significantly advanced, and will continue to have an impact on, investigations of basic biological principles far beyond virology. The November 2010 MPMI Focus Issue will showcase these exciting developments with five invited reviews and nine research papers, covering replication, movement, resistance, and inter-viral interaction mechanisms. It is our special privilege and honor to introduce these articles below.

The ability to replicate in a host cell is central to the ability of a virus to initiate infection of the whole plant. The viral proteins responsible for viral genomic amplification have long been well known. To fully understand viral replication mechanisms requires knowledge of the host factors. In the issue, Ishibashi and colleagues discuss a series of host factors that function positively or negatively in viral replication, based on studies from the *Tobacco mosaic virus (TMV)* model system. Host factors involved in the replication of other plant viral model systems have also been identified. The TMV analysis presented illustrates the

MPMI Focus Issue Editorial Overview continued on page 4

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IS-MPMI REPORTER DEADLINE

The deadline for submitting items for the next issue is December 15, 2010.

Share your news, accomplishments, and upcoming meeting details with your colleagues. Submit articles, announcements, and any ideas you may have for the next issue. You can send an e-mail (ismpmireportereditor@scisoc.org) or submit your item online (www.ismpminet.org/newsletter/submissionform.asp).

Send items to:

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Felice Cervone

A Letter from the President

Our society, founded 20 years ago, has continuously grown during these years, having an important impact on the scientific community. Similarly, our biannual congress, so far alternately located in Europe and North America, has become more and more attractive for scientists all over the world, with a steady increase of attendance, particularly young scientists. Next year, we will start a new tradition, with the 2011 Congress being held in Kyoto, Japan, as recognition of the growing scientific contributions of our Asian colleagues to the field of plant-microbe

interactions. Kyoto is a charming city full of life and tradition, with a 1,200-year history. Established as Japan's capital and emperor's residence from 794 until 1868, it preserves the signs of its culture as testimonials of time. Ancient temples and shrines as well as private houses make this city unique in many ways. Kyoto is a great place for dining out and also has beautiful natural surroundings where many festivals and ceremonies take place. In the past, I personally experienced the beauty of the city and its wonderful cuisine during a couple of visits.

The local Organizing Committee of the XV Congress, chaired by **Ko Shimamoto** from the Nara Institute of Science and Technology, and composed of **Tomonori Shiraishi**, Okayama University; **Naoto Shibuya**, Meiji University; **Masayoshi Kawaguchi**, National Institute for Basic Biology; **Shinji Tsuyumu**, Shizuoka University; **Tetsuro Okuno**, Kyoto University; **Tsutomu Kawasaki**, Kinki University; **Ken Shirasu**, RIKEN; **Tohru Teraoka**, Tokio University of Agriculture; **Yasuyuki Kubo**, Kyoto Prefectural University; and **Kazuya Akimitsu**, Kagawa University, is organizing a terrific program that will highlight the latest research in pathogenic and symbiotic interactions.

Eight plenary sessions will cover important topics, such as the mechanisms controlling the interactions of plants with insects, nematodes, and parasitic plants; recognition and signaling; the biology of effector proteins; and the biotechnological applications of studies in plant-microbe interactions.

Twenty-one concurrent sessions will also be organized, covering important topics, such as symbiotic and saprophytic plant-bacterium interactions; plant-oomycete interactions; mycorrhizal symbiosis; plant-nematode interactions; and plant-virus/viroid interactions; as well as nonhost resistance; plant responses; evolution of virulence susceptibility and resistance; role of cell wall, quorum sensing, and plant hormones in plant-microbe interactions; systems biology; and biocontrol.

Speakers will represent the most prestigious scientists in the different fields of plant-microbe interactions and most of them will be chosen from the authors of the submitted abstracts. Tell your colleagues about the Kyoto Congress and, please, do not forget to renew your membership to receive benefits and reduction in the 2011 Congress registration fee. Participate and enjoy the cutting-edge science in plant-microbe interactions presented at the XV Congress in Kyoto, August 2–6, 2011. ■

Gregory B. Martin Named 2010 Noel T. Keen Awardee



Gregory B. Martin

This year, the recipient of The American Phytopathological Society's (APS's) Noel T. Keen Award for Research Excellence in Molecular Plant Pathology is IS-MPMI member **Gregory B. Martin**. This award recognizes those APS members who have made outstanding contributions and demonstrated sustained excellence and leadership in research that significantly advances the understanding of molecular

aspects of host-pathogen interactions, plant pathogens or plant-associated microbes, or molecular biology of disease development or defense mechanisms.

Martin, who has worked in the field of plant-microbe interactions for more than 20 years, said that "it was a great feeling to be given an award that honors the career of **Noel T. Keen**. He was a visionary person in the molecular plant pathology field, and I was fortunate to have known him during the early years of my career." He went on to express his gratitude for being honored to be in "the great company of the previous plant pathologists who've been given this award."

Martin, born in 1956 in Lansing, MI, received his B.S. (1979), M.S. (1984), and Ph.D. (1989) degrees from Michigan State University (MSU). Subsequently, Martin was a National Science Foundation-supported post-doctoral fellow in the Department of Plant Breeding at Cornell University (CU) (1989–1992) and an assistant professor (then associate professor) in the Department of Agronomy at Purdue University (PU) (1992–1998).

In 1993, the cloning of the tomato *Pto* gene—the first recognitional resistance gene to be cloned—was published in *Science* by Martin based on his work as a post-doctoral fellow with **Steven Tanksley** at CU. The cloning came nine years after the cloning of the first pathogen avirulence gene by **Brian Staskawicz** and Keen. Notably, Keen was one of the first individuals who welcomed Martin to the field, encouraging his early work.

Martin's discovery inaugurated a new era in the study of pathosystems involving gene-for-gene interactions in which both the determinative host and pathogen proteins could be studied directly with the tools of biochemistry and structural biology.

Martin explained that his research program has maintained *Pto* and its signaling pathway as its centerpiece and that model system has been successful in revealing a world of complex molecular interactions and new paradigms for molecular plant pathology.

"A surprising discovery associated with the initial identification of *Pto* was that it encoded a cytoplasmic

protein kinase," Martin stated. At Purdue, Martin and his post-doctoral associates **Jian-min Zhou** and **Xiaoyan Tang** pursued that clue and used yeast two-hybrid techniques to demonstrate that *Pto* physically interacts with AvrPto, the cognate avirulence (type III effector) protein produced by *Pseudomonas syringae* pv. *tomato*. "By constructing mutations in *Pto* and *avrPto* and observing that loss of physical interaction between the proteins resulted in loss of defense activation, we provided a molecular explanation for gene-for-gene specificity."

In 1998, Martin joined the Boyce Thompson Institute for Plant Research in Ithaca, NY, where he now holds a joint appointment as the Boyce Schulze Downey chair and professor in the Department of Plant Pathology and Plant-Microbe Biology at CU.

Currently, Martin's lab continues to study the molecular basis of disease resistance and susceptibility using the interaction of tomato with *P. syringae* pv. *tomato* as their model system. On the plant side, they are focusing on the identification and characterization of genes that play a key role in immunity. On the bacterial side, they are studying the mechanisms that type III effector proteins use to interfere with the plant immune response.

His contributions to the field are vast.

The elegance and rigor of Martin's group helped to connect molecular plant pathology with the broader research community that is studying bacterial pathogenesis, innate immunity, and signal transduction in higher eukaryotes.

Specifically, his lab has made discoveries related to the molecular basis of how plants recognize and activate defenses against bacterial pathogens and how pathogens undermine the plant immune system.

"My lab has studied the roles of two host protein kinases, Pto and Fen, in order to understand how they both recognize pathogen effectors and also act with other host proteins to activate immune signaling pathways. Our related work on two type III effector proteins, AvrPto and AvrPtoB, has contributed to the current understanding of the mechanisms that bacteria use to interfere with both PAMP- and effector-triggered immunity."

Throughout his career, Martin's research has focused on the mechanisms that bacteria use to infect plants and the mechanisms that plants have evolved to interfere with bacterial pathogens. The interaction of tomato with *P. syringae* pv. *tomato* has been the model system for this work. His research has been published in *Cell*, *Nature*, *Science*, *Proceedings of the National Academy of Sciences U.S.A.*, and the *EMBO Journal*, among many other journals.

Noel T. Keen Awardee continued on page 4

MPMI Focus Issue Editorial Overview *continued from page 1*

power of combining biochemistry, genetics, and cellular biology to make continuing advances on mechanistic studies.

Intracellular, cell-to-cell, and long-distance movement of viruses is necessary for establishing systemic infection. Two reviews are devoted to the movement mechanisms. Harries and colleagues focus on the role of the cytoskeletal elements (actin filaments and microtubules) and the cellular membrane systems for the intracellular movement of viral proteins and genomes. Benitez-Alfonso and colleagues focus on the plasmodesmal components and other host factors that interact with viral proteins for cell-to-cell and long-distance movement. Viral movement studies made seminal contributions for the discovery of intercellular macromolecular trafficking in plants. These review articles, and the research articles from Wright and coworkers on a multifunctional movement-facilitating protein from *Potato mop top virus* and the detailed studies of the cell biology of rhabdovirus-host interactions (see article by Min and coworkers) highlight the importance that viral movement studies have in continuing to lead the way in studies of macromolecular trafficking in plants.

Plants have evolved a variety of mechanisms to ward off viral infection. Padmanabhan and Dinesh-Kumar present exciting discoveries on the role of the nucleus, chloroplast, and endoplasmic reticulum in plant innate immunity. Studies on the chloroplast-derived signaling molecules, the interplay between the chloroplast and nucleus, and the endoplasmic reticulum quality control in defense responses will not only continue to deepen our knowledge of the cellular biology of plant resistance but also will continue revealing new insights into the basic biology of plant organelles and their interactions. In the same area, Sun and colleagues describe their work on the role of thioredoxin in regulating resistance to TMV and *Cucumber mosaic virus* (CMV), and Höller and colleagues report molecular and cellular evidence to link elevated

cysteine and glutathione metabolism with sulfur-induced resistance against TMV infection in tobacco. But perhaps the ultimate exploitation of the cell by viruses is infiltration into the genome, as carried out by pararetroviruses that can be transmitted vertically through the germ line but still retain the ability to re-emerge and cause serious disease as described by Iskra-Caruana and her colleagues.

Several other research papers included in the Focus Issue will highlight research advances in various areas of the cell biology of plant-virus interactions. In particular, a number of these studies highlight the importance of cellular translation factors in determining the outcomes of many plant-virus interactions, particularly those involving potyviruses. Jenner and colleagues report that *Turnip mosaic virus* can use multiple alleles of eukaryotic translation initiation factor 4E (eIF4E) and eIF(iso)4E encoded by multiple loci of the *Brassica rapa* genome to support replication. Nakahara and colleagues demonstrate that the P1 cistron of *Clover yellow vein virus* is involved in eIF4E-mediated recessive resistance in pea, while Hébrard and colleagues show that resistance or susceptibility of rice to *Rice yellow mottle virus* is determined by interactions of the VPg with the host translation factor eIF(iso)4G1. Mascia and colleagues present a molecular analysis of the interaction between CMV and *Potato virus Y* in mix infection in tomato, revealing distinct features from infections of other hosts, whereas Hema and colleagues demonstrate that there still remains much to learn about the packaging of viral RNA into virus particles in planta.

We thank all of the authors for their outstanding contributions of review and research articles. Regardless of your specific research interests, we hope you will find the special collection of articles to be valuable resources that bring you up to date on some major progresses in the cell biology of plant-virus interactions as well as illuminate where the field is advancing in the coming years. ■

Noel T. Keen Awardee *continued from page 3*

Over the years, Martin has been honored for his work, including the E. E. Down Award for Outstanding Plant Breeding Student (MSU, 1979), Herbert Newby McCoy Award for Outstanding Research (PU, 1997), ISI 3rd Most Highly Cited Paper in the category of Plant and Animal Science (2004), an ISI Most Highly Cited Author (Plant and Animal Science) (2004); fellow, American Association for the Advancement of Science (2005); Boyce Schulze Downey distinguished chair (2005); fellow, American Academy of Microbiology (2005); and Grand Marnier Foundation lecturer (Pasteur Institute, 2006). And, in 2010, Martin will be honored with the Noel T. Keen Award for Research Excellence in Molecular Plant Pathology.

Martin is very excited about the future of molecular plant pathology and notes that he is “particularly excited about the insights that both structural biology and the study of natural variation are bringing to our understanding of plant-microbe interactions. I have a close collaboration with the x-ray crystallographer **Jijie Chai** (National Institute of Biological Science, Beijing) focused on structure-function aspects of the complexes of type III effector with host proteins. And I have a long-standing collaboration with **Alan Collmer** (Cornell) in which we are taking advantage of the genetic diversity encompassed by the 13 wild species of tomato to understand mechanisms of host immunity and how they have evolved.” ■

Meet IS-MPMI Members

IS-MPMI's diverse membership spans the globe and includes professionals who have been in their field for decades, as well as those who are just starting out. To help members learn more about their colleagues, the *IS-MPMI Reporter* includes profiles of randomly chosen members at different career stages.



Muhammad Sohail Akram

Student Member

Muhammad Sohail Akram

University of Punjab
School of Biological Sciences
Lahore, Pakistan

I spent my early life in a small town located in the Punjab province of Pakistan, Gojra, where I completed high school and my bachelor's degree. In 2004, I completed my master's degree from the University of Punjab Department of Botany, and in July 2005, I started my Ph.D. degree under the supervision of **Javed Iqbal**. Iqbal's group is working on sugarcane tissue culture, transformation, and molecular markers of sugarcane diseases (red rot, rust, smut). I am trying to improve sugarcane transformation efficiency while comparing the biolistic and agrobacterium-mediated transformation methods for this important crop. The final objective is to produce insect-resistant cultivars and to use sugarcane as a bioenergy crop.

In January 2010, with a fellowship from the Higher Education Commission of Pakistan, I joined **Zhanyuan Zhang's** group at the University of Missouri, Columbia. Zhang's lab, one of the leading applied plant transformation labs, is trying to improve the transformation system for major crops, including maize and soybean. It was good research experience working in his group and getting international exposure in plant transformation technology. When comparing the United States and Pakistan, I would like to say, the field of crop biotechnology is still in its infancy (although progressing) in Pakistan, and there is much work and collaboration between the two countries required to bring it to a fruitful level.

My eight-month stay (January to August 2010) in the United States was highly interactive scientifically as well as socially. I used to visit multicultural community programs and met with students and scientists at the University of Missouri. I also attended various seminars/symposia, including the Sixth Annual Soybean Biotechnology Symposium and the Twelfth IAPB Congress/2010 SIVB meeting. It was also at that time when I became familiar with **Gary Stacey** (*MPMI* editor-in-chief) and IS-MPMI. It did not take much time to decide to join IS-MPMI; although small, it's one of the leading societies in plant-microbe interaction studies. I have an interest in plant-agrobacterium interaction studies and IS-MPMI is keeping me updated in this field and helping me to make new contacts in my research area. I wish IS-MPMI would start an education outreach program; one area I have much

interest in besides bench work and the big reason I have memberships with various societies.

Last, I would like to thank IS-MPMI for providing this opportunity. I joined this society at the start of 2010 and this relationship I hope, although it is not too old, will be long lasting. I did not yet attend any meetings of IS-MPMI but have already marked the calendar for the 2011 Congress in Japan. I hope to get funding from the society and meet you all there in the beautiful city of Kyoto.



Michael Ravensdale

Post-Doctoral/Early Career Member

Michael Ravensdale

CSIRO Plant Industry
Canberra, Australia

I am a post-doctoral researcher at CSIRO Plant Industry, working under the supervision of **Peter Dodds** and **Pete Thrall**. In general, we aim to develop a comprehensive

understanding of the co-evolution of host resistance and pathogen virulence in the flax/flax rust pathosystem. The interaction between flax and flax rust has been an important model system for understanding the genetic and molecular basis of host-pathogen interactions in plant diseases as well as for understanding co-evolution processes in natural disease systems. Primarily, I study how members of the AvrL567 effector protein family in flax rust interact with members of the L receptor protein family (L5, L6, and L7) in flax. However, I also study *Avr* evolution in flax rust isolated from natural populations of the Australian native *Linum marginale*. I have learned a great deal while working here at CSIRO, and I feel privileged to be part of such an outstanding group. Outside of work, I have tried to see as much of Australia as I can. As a food and beverage aficionado, many of my destinations have been the wine- and specialty-food-producing regions of Australia.

My career began in my home and native land, where I conducted my M.Sc. research in the labs of **Antoniet Svircev** and **Theo Blom** at Agriculture and Agri-Food Canada and the University of Guelph, respectively. While here, I isolated and characterized bacteriophages specific to *Pectobacterium carotovorum* and applied them as biological control agents of bacterial soft rot of calla lily. I started down this path after being inspired by **John Sutton** at the University of Guelph. He opened opportunities for me to become involved in academic research and encouraged me to pursue them as far as I

Meet IS-MPMI Members continued on page 6

Meet IS-MPMI Members *continued from page 5*

could. While it was long ago that I was an undergraduate in his third-year plant pathology class, I will never forget when he introduced me to *Pectobacterium* (in the form of a foul-smelling, soft-rotting potato) for the first time.

After graduating, I went on to conduct Ph.D.-level research in the labs of **Paul Birch** and **Ian Toth** at the Scottish Crop Research Institute (SCRI) and the University of Dundee, respectively. This work focused on characterizing a coronatine-like phytotoxin produced by *P. atrosepticum*. I determined that production of this toxin contributes to pathogen virulence and is regulated in a quorum sensing-dependent manner. I also identified JAZ1 as a potential target for this toxin. It was during this work that I honed my bioinformatic and molecular biological skills. I was very fortunate to work and study with the people in the Plant Pathology Programme at SCRI. I greatly enjoyed my time in Scotland, and while there I developed a taste for haggis and quality malt whisky (preferably cask strength).

I have been a member of IS-MPMI since 2007, when I registered for the congress in Sorrento, Italy. I was immediately impressed with the society and the passion, ambition, and focus of its members. I also attended the congress in Quebec City in 2009, where I was able to present some of the initial results from the flax system. These meetings have been very informative and productive for me, and I look forward to attending the next meeting in Kyoto! ■

Nomination Deadline Approaching for the Noel T. Keen Award for Research Excellence

The American Phytopathological Society (APS) is now accepting nominations for the Noel T. Keen Award for Research Excellence in Molecular Plant Pathology. **Noel T. Keen** was a former board member of IS-MPMI and a prolific scholar who made many major contributions to the field of molecular plant-microbe interactions on very diverse systems. Recipients of the Noel T. Keen Award receive a certificate and a cash prize derived from a fund established through the APS Foundation. For instructions on the application process, visit www.apsnet.org/members/awards/Pages/AwardsCallforNominations.aspx. Nominees must be APS members. Nomination packages should be submitted by November 1, 2010, as specified in the directions for consideration. Additional inquiries can be directed to **Stella M. Coakley** at stella.coakley@oregonstate.edu. ■

20 MPMI Articles from 20 Years Ago

We asked former *MPMI* Editor-in-Chief **Jonathan Walton** to look back at what was published in *MPMI* during the society's first year. Only six issues were published in 1991, and at that time, **Luis Sequeira** served as editor-in-chief.

Here are 20 papers from 1991 that were published at a time when the field of plant-microbe interactions was in its formative years. They reflect the development of the field.

In 1991, most articles published in *MPMI* were on bacterial and viral virulence and symbiosis factors and few were on fungi or oomycetes. The first plant resistance genes had not yet been cloned. Favored organisms were *Rhizobium*, *Agrobacterium*, *Erwinia*, and *Pseudomonas* spp. What are now known as pathogenesis-related (PR) proteins were a hot topic. Only a single paper published in *MPMI* in 1991 used *Arabidopsis thaliana* as a test organism; in this paper, Davis et al. screened 51 strains of *Pseudomonas* and *Xanthomonas* spp. (including *P. syringae* DC3000) with the aim of developing a model pathosystem.

Below are 20 articles selected by Walton from IS-MPMI's first year as a society in celebration of the society's twentieth anniversary. These articles are all available via open access online.

An Extracellular Glycoprotein from *Phytophthora megasperma* f. sp. *glycinea* Elicits Phytoalexin Synthesis in Cultured Parsley Cells and Protoplasts. J. E. Parker, W. Schulte, K. Hahlbrock, and D. Scheel. Pages 19-27.

Cloning and Characterization of cDNA of Avirulence Gene *avr9* of the Fungal Pathogen *Cladosporium fulvum*, Causal Agent of Tomato Leaf Mold. J. A. L. van Kan, G. F. J. M. van den Ackerveken, and P. J. G. M. de Wit. Pages 52-59.

Characterization of a DNA Region Required for Production of the Phytotoxin Coronatine by *Pseudomonas syringae* pv. *tomato*. S.-W. Ma, V. L. Morris, and D. A. Cuppels. Pages 69-74.

Isolation of a Gene Cluster from *Xanthomonas campestris* pv. *vesicatoria* that Determines Pathogenicity and the Hypersensitive Response on Pepper and Tomato. U. Bonas, R. Schulte, S. Fenselau, G. V. Minsavage, B. J. Staskawicz, and R. E. Stall. Pages 81-88.

Cloning of Genes Affecting Polygalacturonase Production in *Pseudomonas solanacearum*. C. Allen, Y. Huang, and L. Sequeira. Pages 147-154.

Genetic Evidence that Extracellular Polysaccharide Is a Virulence Factor of *Pseudomonas solanacearum*. T. P. Denny and S.-R. Baek. Pages 198-206.

Current Review: Infectious and Genetic Manifestations of Prion Diseases. S. B. Prusiner and D. Westaway. Pages 226-233.

Sense and Antisense RNA-Mediated Resistance to Potato Leafroll Virus in Russet Burbank Potato Plants.

L. M. Kawchuk, R. R. Martin, and J. McPherson. Pages 247-253.

Molecular Cloning and Detection of Chromosomal and Extrachromosomal DNA of Mycoplasma-like Organisms Associated with Witches'-Broom Disease of Pigeon Pea in Florida. N. A. Harrison, J. H. Tsai, C. M. Bourne, and P. A. Richardson. Pages 300-307.

A Lipopolysaccharide Mutant of *Bradyrhizobium japonicum* that Uncouples Plant from Bacterial Differentiation. G. Stacey, J.-S. So, L. E. Roth, B. Lakshmi S. K., and R. W. Carlson. Pages 332-340.

Diverse Signal Sensitivity of NodD Protein Homologs from Narrow and Broad Host Range Rhizobia. Z. Györgypal, E. Kondorosi, and A. Kondorosi. Pages 356-364.

At Least Six Avirulence Genes Are Clustered on a 90-Kilobase Plasmid in *Xanthomonas campestris* pv. *malvacearum*. R. De Feyter and D. W. Gabriel. Pages 423-432.

Nodulin Regulation in Common Bean Nodules Induced by Bacterial Mutants. J. E. Padilla, J. Miranda, and F. Sánchez. Pages 433-439.

Cloning of a Melanin Biosynthetic Gene Essential for Appressorial Penetration of *Colletotrichum lagenarium*. Y. Kubo, H. Nakamura, K. Kobayashi, T. Okuno, and I. Furusawa. Pages 440-445.

Tobacco Mosaic Virus Elicitor Coat Protein Genes Produce a Hypersensitive Phenotype in Transgenic *Nicotiana sylvestris* Plants. J. N. Culver and W. O. Dawson. Pages 458-463.

In situ Localization of *Rhizobium* mRNAs in Pea Root Nodules: *nifA* and *nifH* Localization. W.-C. Yang, B. Horvath, J. Hontelez, A. Van Kammen, and T. Bisseling. Pages 464-468.

Virulence of Selected Phytopathogenic Pseudomonads in *Arabidopsis thaliana*. K. R. Davis, E. Schott, and F. M. Ausubel. Pages 477-488.

The Movement of Viral-Like RNA Between Colonies of *Cryphonectria parasitica*. R. M. Martin and N. K. Van Alfen. Pages 507-511.

Host-Pathogen Interactions XXXIX: A Soybean Pathogenesis-Related Protein with β -1,3-Glucanase Activity Releases Phytoalexin Elicitor-Active Heat-Stable Fragments from Fungal Walls. K.-S. Ham, S. Kauffmann, P. Albersheim, and A. G. Darvill. Pages 545-552.

Transformation of the Oomycete Pathogen, *Phytophthora infestans*. H. S. Judelson, B. M. Tyler, and R. W. Michelmore. Pages 602-607. ■

XV International Congress on MPMI

Dear IS-MPMI Members,

I would like to invite all of the members of IS-MPMI to Kyoto next year. We have established the Organizing Committee for the next congress to be held in Kyoto, Japan, August 2–6, 2011. This will be the first IS-MPMI Congress held in East Asia. We will keep the tradition of having the most-updated, top science in the field of molecular plant-microbe interactions. We are now planning sessions and speakers for various scientific sessions. The website, <http://mpmi2011.umin.jp>, will be open in October 2010. Registration and abstract submission will start in early January 2011. We will post new information on the conference, such as confirmed speakers and planned sessions, as soon as they are decided.



Venue: Kyoto International Conference Center (ICC Kyoto)

Preliminary Program: We will have eight plenary sessions and 21 concurrent sessions

August 2: Registration and opening ceremony, opening lecture by **Shizuo Akira** of Osaka University on TLR, and the award lecture followed by a reception

August 3–4: Plenary sessions in the morning, concurrent sessions in the afternoon, and a poster session in the evening

August 5: Plenary sessions in the morning, concurrent sessions in the afternoon, and excursion

August 6: Concurrent sessions in the morning and plenary sessions in the afternoon, followed by the closing ceremony and congress dinner

I look forward to seeing you all in Kyoto next year!

Ko Shimamoto
Chair, Organizing Committee for the 2011 IS-MPMI
Congress in Kyoto
mpmikyoto2011@bs.naist.jp ■

Recently published research in *Molecular Plant-Microbe Interactions*

Find complete abstracts online with links to full-text articles at <http://apsjournals.apsnet.org/loi/mpmi>

July 2010, Volume 23, Number 7

Disruption of Two Defensive Signaling Pathways by a Viral RNA Silencing Suppressor.

Nitric Oxide Participates in the Complex Interplay of Defense-Related Signaling Pathways Controlling Disease Resistance to *Sclerotinia sclerotiorum* in *Arabidopsis thaliana*.

Involvement of Salicylate and Jasmonate Signaling Pathways in *Arabidopsis* Interaction with *Fusarium graminearum*.

ClpXP Protease Regulates the Type III Secretion System of *Dickeya dadantii* 3937 and Is Essential for the Bacterial Virulence.

The Hemibiotroph *Colletotrichum graminicola* Locally Induces Photosynthetically Active Green Islands but Globally Accelerates Senescence on Aging Maize Leaves.

Mutagenesis of 18 Type III Effectors Reveals Virulence Function of XopZ_{PXO99} in *Xanthomonas oryzae* pv. *oryzae*.

A Unique Glycine-Rich Motif at the N-terminal Region of *Bamboo mosaic virus* Coat Protein Is Required for Symptom Expression.

Expression Pattern Suggests a Role of MiR399 in the Regulation of the Cellular Response to Local Pi Increase During Arbuscular Mycorrhizal Symbiosis.

Pseudomonas syringae Two-Component Response Regulator RhpR Regulates Promoters Carrying an Inverted Repeat Element.

Effector-Triggered and Pathogen-Associated Molecular Pattern-Triggered Immunity Differentially Contribute to Basal Resistance to *Pseudomonas syringae*.

Combination of Fluorescent Reporters for Simultaneous Monitoring of Root Colonization and Antifungal Gene Expression by a Biocontrol Pseudomonad on Cereals with Flow Cytometry.

Transcriptome Analysis of the Barley-Deoxynivalenol Interaction: Evidence for a Role of Glutathione in Deoxynivalenol Detoxification.

Validation of a Candidate Deoxynivalenol-Inactivating UDP-Glucosyltransferase from Barley by Heterologous Expression in Yeast.



August 2010, Volume 23, Number 8

TECHNICAL ADVANCE—Methods to Study PAMP-Triggered Immunity Using Tomato and *Nicotiana benthamiana*.

Phytoalexin Accumulation in the Interaction Between Rice and the Blast Fungus.

β -Aminobutyric Acid Primes an NADPH Oxidase-Dependent Reactive Oxygen Species Production During Grapevine-Triggered Immunity.

PsSAK1, a Stress-Activated MAP Kinase of *Phytophthora sojae*, Is Required for Zoospore Viability and Infection of Soybean.

Silencing of WIPK and SIPK Mitogen-Activated Protein Kinases Reduces *Tobacco mosaic virus* Accumulation But Permits Systemic Viral Movement in Tobacco Possessing the *N* Resistance Gene.

A *cbb₃*-Type Cytochrome *C* Oxidase Contributes to *Ralstonia solanacearum* R3bv2 Growth in Microaerobic Environments and to Bacterial Wilt Disease Development in Tomato.

The Basic Leucine Zipper Transcription Factor Moatf1 Mediates Oxidative Stress Responses and Is Necessary for Full Virulence of the Rice Blast Fungus *Magnaporthe oryzae*.

Xanthomonas campestris pv. *vesicatoria* Effector AvrBsT Induces Cell Death in Pepper, but Suppresses Defense Responses in Tomato.

A Partial Chromosomal Deletion Caused by Random Plasmid Integration Resulted in a Reduced Virulence Phenotype in *Fusarium graminearum*.

Choline and Osmotic-Stress Tolerance Induced in *Arabidopsis* by the Soil Microbe *Bacillus subtilis* (GB03).

September 2010, Volume 23, Number 9

Host and Nonhost Resistance in *Medicago-Colletotrichum* Interactions.

The *Ustilago maydis* Forkhead Transcription Factor Fox1 Is Involved in the Regulation of Genes Required for the Attenuation of Plant Defenses During Pathogenic Development.

Age-Related Resistance of *Nicotiana benthamiana* Against Hemibiotrophic Pathogen *Phytophthora infestans* Requires Both Ethylene- and Salicylic Acid-Mediated Signaling Pathways.

RBOHF2 of Barley Is Required for Normal Development of Penetration Resistance to the Parasitic Fungus *Blumeria graminis* f. sp. *hordei*.

Methyl Esterase 1 (StMES1) Is Required for Systemic Acquired Resistance in Potato.

Rhodococcus fascians Impacts Plant Development Through the Dynamic Fas-Mediated Production of a Cytokinin Mix.

Transcription of Two Blue Copper-Binding Protein Isogenes Is Highly Correlated with Arbuscular Mycorrhizal Development in *Medicago truncatula*.

Effects of *galU* Mutation on *Pseudomonas syringae*–Plant Interactions.

A Competitive Index Assay Identifies Several *Ralstonia solanacearum* Type III Effector Mutant Strains with Reduced Fitness in Host Plants.

Diversity, Distribution, and Evolution of *Solanum bulbocastanum* Late Blight Resistance Genes.

BAX *INHIBITOR-1* Is Required for Full Susceptibility of Barley to Powdery Mildew.

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CURRENT REVIEW—Varied Movement Strategies Employed by Triple Gene Block–Encoding Viruses.

CURRENT REVIEW—Antiviral Role of Plant-Encoded RNA-Dependent RNA Polymerases Revisited with Deep Sequencing of Small Interfering RNAs of Virus Origin.

CURRENT REVIEW—Getting the Most from the Host: How Pathogens Force Plants to Cooperate in Disease.

Characterization of *MoLDB1* Required for Vegetative Growth, Infection-Related Morphogenesis, and

Pathogenicity in the Rice Blast Fungus *Magnaporthe oryzae*.

Laser Capture Microdissection of Uredinia Formed by *Melampsora larici-populina* Revealed a Transcriptional Switch Between Biotrophy and Sporulation.

Pseudomonas syringae Virulence Factor Syringolin A Counteracts Stomatal Immunity by Proteasome Inhibition.

Confocal Imaging of *Pseudomonas syringae* pv. *phaseolicola* Colony Development in Bean Reveals Reduced Multiplication of Strains Containing the Genomic Island PPHGI-1.

The *Arabidopsis* Downy Mildew Resistance Gene *RPP8* Is Induced by Pathogens and Salicylic Acid and Is Regulated by *W Box cis* Elements.

Regulation of Motility in *Erwinia carotovora* subsp. *carotovora*: Quorum-Sensing Signal Controls FlhDC, the Global Regulator of Flagellar and Exoprotein Genes, by Modulating the Production of RsmA, an RNA-Binding Protein.

Disruption of the *Bcchs3a* Chitin Synthase Gene in *Botrytis cinerea* Is Responsible for Altered Adhesion and Overstimulation of Host Plant Immunity.

Gluconate Metabolism Is Required for Virulence of the Soft-Rot Pathogen *Pectobacterium carotovorum*.

Regulatory Mechanisms of Exoribonuclease PNPase and Regulatory Small RNA on T3SS of *Dickeya dadantii*.

Role of Cyclic di-GMP in *Xylella fastidiosa* Biofilm Formation, Plant Virulence, and Insect Transmission. ■



Digital Version of the *IS-MPMI Reporter* Now Available!

Did you know that archived issues of the *IS-MPMI Reporter* can be accessed from 1993? Beginning with the No. 2 (June) 2010 issue, the *Reporter* has now been digitally enhanced for greater readability and searchability. In addition, the new page-reading tool allows users to conduct a keyword search of the entire issue. Flip page by page to read the full-color online issue with ease! As always, the table of contents for each issue will be available with an option to download a standard PDF for printing. Read the latest issue online at www.ismpminet.org/newsletter/October2010.asp. ■

Employment

Faculty Position with the Boyce Thompson Institute for Plant Research at Cornell University

The Boyce Thompson Institute (BTI), an independent not-for-profit research institute affiliated with Cornell University (CU), invites applications for a tenure-track faculty position at the assistant level. We seek candidates whose research addresses fundamental questions in plant biology and is synergistic with current research at BTI and CU. Particular areas of interest include, but are not limited to, structural biology, plant biochemistry, evolutionary genomics, and plant-microbe symbioses. BTI is located on the CU campus in Ithaca, a culturally diverse and vibrant town in the Finger Lakes region of New York. Our faculty members have access to state-of-the-art mass spectrometry, cell imaging, and plant growth facilities at BTI (<http://bti.cornell.edu>), as well as extensive life sciences facilities through the CU Life Sciences Core Laboratories Center (www.brc.cornell.edu). The successful candidate is expected to establish an outstanding extramurally funded research program and is encouraged to develop links to relevant departments at CU. Review of applications will begin November 1, 2010. BTI is an affirmative action, equal opportunity employer and is committed to increasing the diversity of its faculty and staff. Applications from women and minorities are encouraged. Applicants should submit a cover letter, detailed curriculum vitae, the names of three references, and a statement of research interests (two to three pages) to Maria J. Harrison, chair, BTI Faculty Search Committee, Boyce Thompson Institute, Tower Road, Ithaca, NY 14853 U.S.A. **E-mail:** BTI_Faculty_Search@cornell.edu; **Web:** <http://bti.cornell.edu>.

Post-Doctoral Scientist Interested in Plant Ionomics

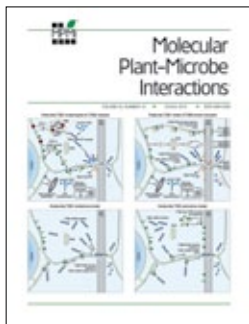
We are currently looking for a highly motivated, post-doctoral scientist to join our research on ionomics of mycorrhizal plants. Ionomics requires the application of elemental analysis technologies (e.g., ICP-MS) and their integration with both bioinformatic and genetic tools. The ideal candidate is interested in working on an international research team on fundamental biological processes in plant membrane transport-root symbiosis and has experience in ICP-MS and ideally plant genetics and plant molecular physiology (e.g., Rausch et al., *Nature*, 2001; Nagy et al., *Plant J.*, 2005; Drissner et al., *Science*, 2007). Our research group is well equipped with state-of-the-art ICP-MS technology (Agilent 7700 Series) and further MS equipment (ESI-MS Applied Biosystems, and micrOTOF-Q, Bruker [in planning]). The position is available immediately and the initial contract is for two years with optional extension and the possibility to develop to a junior group leader position. **Salary:** according TV-L E13. As the position is part of the "BioEnergy2021" program of the German Federal Ministry of Education and Research, the project offers an excellent scientific environment for successful research, networking, and career development. The laboratory is located in the Cologne Biocenter, a newly established integrative research and teaching facility for biological sciences at the University of Cologne. Please

send a letter of application outlining research experience and interests, curriculum vitae, publication list, transcripts, and letters of recommendation preferably by e-mail to nina.zellerhoff@uni-koeln.de or through the mail to Marcel Bucher. **Contact:** Marcel Bucher, Cologne Biocenter, University of Cologne, Zùlpicherstrasse 47b, D-50647 Cologne, Germany. **E-mail:** nina.zellerhoff@uni-koeln.de; **Web:** www.bucherlab.uni-koeln.de; www.fzjuelich.de/ptj/bioenergie2021.

Plant Pathology Department Chair, The Ohio State University

Applications are invited for the position of chair of the Department of Plant Pathology at The Ohio State University (OSU). The department consists of faculty, post-docs, students, and staff based on the OSU main campus in Columbus and the Ohio Agricultural Research and Development Center (OARDC) campus in Wooster. The position will be based on the Columbus campus. The chair, who reports to the vice president and executive dean of the College of Food, Agricultural, and Environmental Sciences, administratively leads a departmental program of research, teaching, extension, and international development. The chair fosters effective, collegial, cooperative, and productive relationships among students, staff, and faculty; works with other chairs and administrators to advance the vision and missions of the department; and promotes the department with state, national, and international organizations. The chair oversees the annual salary-adjustment process, performs annual reviews of faculty and senior staff, and provides leadership for professional development. The chair further provides administrative leadership, oversight, and maintenance of department financial and operational processing. Candidates must hold an earned doctorate in plant pathology or related field, be eligible for appointment as a tenured full professor, have the ability to administer and manage the fiscal and human resources in an academic department, and have demonstrated leadership qualities. The successful candidate will have a distinguished record of research, teaching, and/or extension, as well as a demonstrated ability to successfully develop external financial support. **Salary:** Commensurate with qualifications and experience. Review of applications will begin September 1, 2010, and continue until a qualified candidate is identified. OSU is an equal opportunity/affirmative action employer. Qualified persons are requested to submit a letter of application; a statement of the applicant's vision and administrative philosophy, as well as a summary of leadership experiences and qualifications; and a complete CV, including names, addresses, telephone numbers, and e-mail addresses of four references. Submit application materials to Larry Madden. **Contact:** Larry Madden, Search Committee Chair, Department of Plant Pathology, 201 Kottman Hall, The Ohio State University, Columbus, OH 43210 U.S.A. **Phone:** +1.330.263.3839; **E-mail:** madden.1@osu.edu; **Web:** <http://plantpath.osu.edu>. ■

Don't Miss These Current Reviews in the October Issue of *MPMI*



Read these Current Review articles in the October issue of *MPMI*.

Impact of RDR1 and RDR6 in Defense Against Viruses Is Summarized

In this review article, Feng Qu examines findings from the recent literature that support an active role for RDR1 and RDR6 in antiviral defense against a number

of viruses, including *Tobacco mosaic virus*, *Cucumber mosaic virus*, and *Turnip mosaic potyvirus*. These studies established that RDR1 and RDR6 function synergistically to contain RNA virus infections through the RNA silencing-based antiviral defense. Read "Antiviral Role of Plant-Encoded RNA-Dependent RNA Polymerases Revisited with Deep Sequencing of Small Interfering RNAs of Virus Origin" and find out where Qu sees the research going from here. <http://apsjournals.apsnet.org/doi/abs/10.1094/MPMI-06-10-0124>

Verchot-Lubicz et al. Look at Triple Gene Block-Encoding Viruses

This review article explains varied movement strategies employed by triple gene block (TGB)-encoding viruses. The authors highlight common features of the TGB proteins and salient differences in movement

properties exhibited by individual viruses encoding these proteins. They discuss common and divergent aspects of the TGB transport machinery, describe putative nucleoprotein movement complexes, highlight recent data on TGB protein interactions and topological properties, and review membrane associations occurring during subcellular targeting and cell-to-cell movement. They conclude that the existing models cannot be used to explain all TGB viruses and propose provisional *Potexvirus*, *Hordeivirus*, and *Pomovirus* models. They also suggest areas that might profit from future research on viruses harboring this intriguing arrangement of movement proteins. <http://apsjournals.apsnet.org/doi/abs/10.1094/MPMI-04-10-0086>

INRA Scientists Examine How Pathogens Force Plants to Cooperate in Disease

This review article addresses plant susceptibility and highlights a number of host processes that have been shown to be induced or subverted to facilitate infection. In particular, Hok et al. focus on those processes that appear to be manipulated by filamentous fungal and oomycete pathogens. An understanding of the molecular mechanisms underlying successful infection should make it possible to develop new crop protection strategies based on interference with compatibility to prevent disease. <http://apsjournals.apsnet.org/doi/abs/10.1094/MPMI-04-10-0103> ■

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July

- A Unique Glycine-Rich Motif at the N-terminal Region of *Bamboo mosaic virus* Coat Protein Is Required for Symptom Expression (<http://apsjournals.apsnet.org/doi/abs/10.1094/MPMI-23-7-0903>)
- Expression Pattern Suggests a Role of MiR399 in the Regulation of the Cellular Response to Local Pi Increase During Arbuscular Mycorrhizal Symbiosis (<http://apsjournals.apsnet.org/doi/abs/10.1094/MPMI-23-7-0915>)
- Validation of a Candidate Deoxynivalenol-Inactivating UDP-Glucosyltransferase from Barley by Heterologous Expression in Yeast (<http://apsjournals.apsnet.org/doi/abs/10.1094/MPMI-23-7-0977>)

August

- Phytoalexin Accumulation in the Interaction Between Rice and the Blast Fungus (<http://apsjournals.apsnet.org/doi/abs/10.1094/MPMI-23-8-1000>)

September

- Diversity, Distribution, and Evolution of *Solanum bulbocastanum* Late Blight Resistance Genes (<http://apsjournals.apsnet.org/doi/abs/10.1094/MPMI-23-9-1206>)

November

- Intracellular Transport of Viruses and Their Components: Utilizing the Cytoskeleton and Membrane Highways (<http://apsjournals.apsnet.org/doi/abs/10.1094/MPMI-05-10-0121>)
- Enhanced Glutathione Metabolism Is Correlated with Sulfur-Induced Resistance in *Tobacco mosaic virus*-Infected Genetically Susceptible *Nicotiana tabacum* Plants (<http://apsjournals.apsnet.org/doi/abs/10.1094/MPMI-05-10-0117>) ■

Welcome New Members

The following members joined IS-MPMI between May 1 and August 31, 2010.
Please join us in welcoming them to the society!

Janice De Almeida-Engler

INRA
Sophia Antipolis, France

Madhavi Dere

Virginia Tech
Blacksburg, VA, U.S.A.

Anne Genissel

INRA
Castanet Tolosan, France

Kappei Kobayashi

Iwate Biotechnology Research Center
Matsuyama, Ehime, Japan

Sandra Marisa Mathioni

Univ of Delaware
Newark, DE, U.S.A.

Dzarifah Mohamed Zulperi

Penn State Univ
State College, PA, U.S.A.

Bin Tian

Penn State Univ
State College, PA, U.S.A.

Hiroshi Uchiyama

Nihon Univ
Fujisawa, Japan

Martin Welch

Cambridge Univ
Cambridge, United Kingdom

Simon J. Williams

Univ of Queensland
Brisbane, QLD, Australia

Richard A. Wilson

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Lincoln, NE, U.S.A.

Bing Yang

Iowa State Univ
Ames, IA, U.S.A.

Celebrating a Milestone

For 20 years, IS-MPMI has been bringing people together through the sharing of research and new ideas. As our community continues to grow, please invite your colleagues to become part of IS-MPMI and experience the premier science and connections to scientists worldwide. Tell your colleagues to visit www.ismpminet.org/members/join.asp to learn more about the benefits of membership and download an application.

1990-2010

*Here's to another successful 20 years and more!
Thank you for your continued support.*



A Review of the 8th International Conference on *Pseudomonas syringae* Pathovars and Related Pathogens

Robert Jackson (r.w.jackson@reading.ac.uk), Gail Preston (gail.preston@plant-sciences.ox.ac.uk), and Dawn Arnold (dawn.arnold@uwe.ac.uk)

The 8th International Conference on *Pseudomonas syringae* Pathovars and Related Pathogens was recently held in Oxford between August 31 and September 3. More than 140 delegates from 25 countries and four continents attended

the conference. This conference has traditionally been held in Europe, and this was the first occasion for the United Kingdom to host it—so the challenge was on to make the conference as successful as previous occasions. Talks and posters were held in the Department of Physics Conference Centre, with accommodations and meals provided at Trinity College. After an opening lecture by **Gail Preston** on the scientific and educational history of Oxford, delegates enjoyed a wine and canapé reception in the University Natural History Museum—overlooked by the resident *Tyrannosaurus rex* and other dangerous diploid exhibits.

Three full days of talks were scheduled and the quality of talks was superb across the board. Day one focused on effector function and pathogenesis and plant responses, with a genomics workshop in the evening. **Alan Collmer** kicked off with an excellent overview of *P. syringae* effector biology, followed by an elegant disassembly and reassembly of *P. syringae* pv. *tomato* strains with various combinations of effectors. In this way, his lab has been able to dissect the precise phenotypic and functional roles of a number of effectors, and this approach promises much for further insight to the individual effector contributions. Collmer received a gift and a diploma from the society in recognition of his illustrious and continuing distinctions in *P. syringae* research. This was followed by an enlightening talk by **Darrell Desveaux**, who has discovered that effector HopZ1a targets microtubule networks; Desveaux actually used human cell lines to uncover the initial phenotype and translated this to the plant system. In the afternoon session, **Greg Martin** provided an update on AvrPto and AvrPtoB research and highlighted the discovery of ubiquitin ligase type III effectors in *Escherichia coli* O157. Meanwhile, **Jean Greenberg** has been examining



Lineup of delegates at Trinity College.

bacterial colonization of leaf surfaces, specifically focusing on the contribution of the type III secretion system to the process.

After the first poster session and a buffet dinner, a genomics

session was organized by **Magdalen Lindeberg**. Fuelled by beer and wine, the session was informal and there were discussions of various challenges thrown up by next-generation sequencing and data management. Top marks go to **David Baltrus** for his talk, entitled “Feasting on draft genomes: Finish what you can and microwave the leftovers,” telling us some of his lessons learned along the way when working with multiple draft genome sequences.



Alan Collmer (team DC3000) takes on Matteo Carboneschi (team I448A).

Bryan Swingle introduced a fantastic new methodology for introducing point mutations and doing gene deletions in *Pseudomonas* (and other) bacteria using simple oligonucleotides—this could be a pivotal advance for genetic engineering, or recombineering, plant pathogens. At 10 p.m., delegates retired to the beer cellar at Trinity College for challenges in table football—a prelude to the real thing the following day.



George Sundin and John Mansfield (team I448A) with their effector.

David Guttman started off the next morning with a lively presentation. He proved himself to be a future king of the PAMP world with his elegant evolutionary analysis to identify novel PAMPs on a whole cell level—this was done by genomic analysis of amino acid signatures to identify peptides under negative selection and then testing these peptides in various plant species to prove they triggered basal defenses. **Carolee Bull** took the mantle on continuing the famous **Norm Schaad-John Young** diagnostics and systematics “duel.” Besides telling us some smokin’ research on *Pseudomonas cannabina*, her flamboyant and humorous talk raised contentious issues on how bacteria should be classified—certainly it should keep us talking about it until the next meeting! **George Sundin**

maintained the momentum with an informative, humorous update on *P. syringae* plasmid research. In the afternoon, nine Ph.D. students competed for a Society for General

8th International *Pseudomonas syringae* Conference continued on page 14

Microbiology prize for the best oral presentation; despite very high-quality and split judgments between three candidates, **Karl Schreiber** from the University of Toronto was judged to have given the best talk.

The conference delegates then retired to the University Club for a football (soccer) match. Delegates received a dark blue T-shirt (for team DC3000) or white T-shirt (for team 1448A), and the battle of the syringaes commenced. Despite the colossal presence of Collmer, **Jim Alfano**, **Murray Grant**, and **Ian Toth** representing team DC3000, the team 1448A minnows led by **John Mansfield** proved that having less effectors counts for nothing when on the football pitch!

Stiff and sore the next day, the final day of talks was kicked off by **Boris Vinatzer**, who has done a wonderful population genetic analysis of global *P. syringae* pv. *tomato* strains, showing how different phylogenetic lineages have risen and fallen over time. **Francisco Cazorla** provided a nice insight to the molecular basis of mangotoxin production, and **Cayo Ramos** gave a particularly elegant talk on functional genomics of the olive pathogen *P. savastanoi* pv. *savastanoi*, with very nice imaging analysis of bacterial growth within olive knots. **Melanie Filiatrault** also showed how RNA sequencing (transcriptomics using next-generation sequencing) is the way forward not only for examining gene expression but also for identifying noncoding small RNAs.

Other notable talks in the conference were those of **Robert Dudler** and **Renier van der Hoorn** showing how syringolin A targets the host proteasome for overcoming plant defense and nicely illustrating how this can complement type III secretion in virulence. **Ingyu**

Hwang, Vittoria Catara, Lisa Schechter, and Stefania Tegli all provided interesting talks on quorum sensing and regulatory mechanisms in plant pathogens, an area that is relatively understudied.

On the final night, Mansfield gave an expert overview of how the field has moved forward and how we really need to consider how we can apply our research to the control of bacterial diseases in the field. A short celebration of Mansfield's achievements in the field and his continuing support despite recent retirement were marked by the award of a pair of silver-plated spoons and a diploma. A banquet in Trinity College followed, with excellent food, lashings of wine, and much merriment that continued on into the wee hours. The conference prizes were given out for best student talk (Schreiber) and best poster, which was awarded to **Valerie Nicaise** of The Sainsbury Laboratory. This prize was contributed by IS-MPMI and we are grateful for the society's support. We also wish to thank the delegates for their attendance and making the conference so stimulating and enjoyable. Additional photos of the conference can be found online at <http://pseudomonas-syringae.org>.

Of course, we look forward to the next meeting. With talks and chairing from **Carmen Beuzon, Emilia Lopez Solanilla, Pablo Rodriguez Palenzuela, Leire Bardaji, Jose Gutierrez-Barranquer, Alberto Macho, Cazorla, Ramos, and Jesus Murillo** (and not forgetting **Antonio de Vicente**, who was chief wine taster), it becomes clear who should host the next meeting—indeed, it's the World Cup champions, Spain. Dust off your sunnies and shorts and keep time in your diary for 2014—Malaga here we come!

Accompanying photos are courtesy of Glyn Barrett. ■



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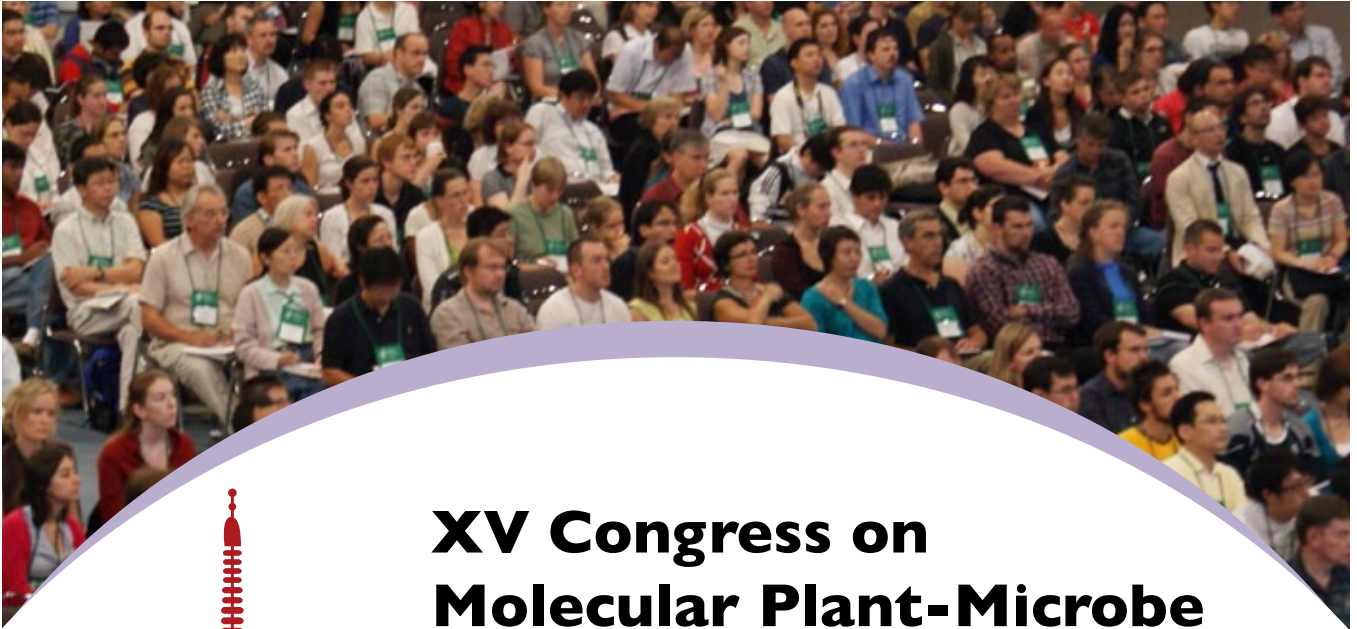
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COMING EVENTS

November 7–12, 2010

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www.ira.cinvestav.mx/gemini2010

December 7–9, 2010

2010 National Fusarium Head Blight Forum

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<http://scabusa.org/forum10.html>

August 2–6, 2011

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Kyoto, Japan

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