

IS-MPMI Reporter

International Society for
Molecular Plant-Microbe Interactions

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Time to Renew Your IS-MPMI Membership

Renewal invoices were recently mailed to all members that have a January 1 membership term. For uninterrupted membership service, please remit payment to IS-MPMI headquarters by November 15, 2005

IS-MPMI REPORTER DEADLINE

Deadline for submitting items for the next issue is January 5, 2006.

Submission of materials as electronic files, either on disk or as e-mail attachments, will speed processing. For information on submitting electronic images contact Joel Berg at jberg@scisoc.org.

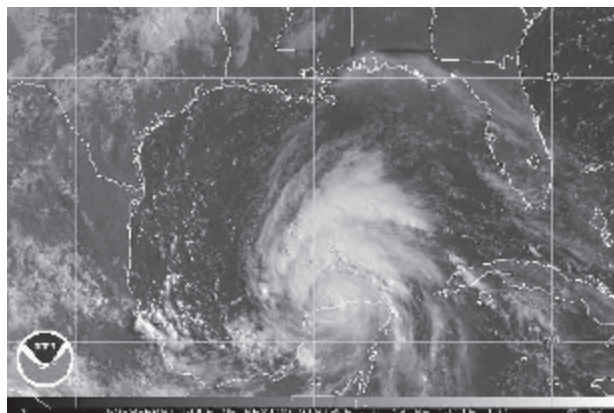
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Hurricane Emily Results in Congress Postponement

On Friday morning, July 15, two days before the scheduled start of the XII International Congress on Molecular Plant-Microbe Interactions, Congress Organizer Federico Sanchez sat in his hotel room in Cancun, Mexico watching the latest weather forecast on T.V. Hurricane Emily, a category 3 storm packing 115 mile per hour winds, was predicted to make landfall in Cancun late Sunday or early Monday. With some nine hundred attendees scheduled to attend the six-day Congress in Cancun, and an estimated 150 to 170 of them already there, Sanchez was understandably concerned.

He had discussed the hurricane warning the day before with management from the Fiesta Americana Grand Coral Beach (the official hotel for the Congress). "They were not particularly concerned at that point," says Sanchez. "They told me very calmly that they receive at least 20 hurricane warnings per year and only a few turn out to be of major concern to Cancun, most of them end up in Cuba and Puerto Rico or pass by and go to Florida. The last hurricane to hit Cancun in July was in 1880 and that most hurricanes strike during the hurricane season, which didn't start until the end of August."



Hurricane Emily passed over the Yucatan Peninsula on Monday, July 18, 2005, upsetting plans for the XII International Congress. Photo courtesy of the National Oceanic and Atmospheric Administration/Department of Commerce.

The weather forecasts for Cancun had noted that hurricane projections made days in advance could be unreliable because of the erratic nature of hurricane movement. It was possible that Hurricane Emily could miss Cancun all together, and in fact, change course dramatically in just a few hours. But Sanchez knew that soon hundreds of people would be boarding planes headed for Cancun and a decision had to be made.

By Friday morning Fiesta Americana management were significantly more concerned and had been meeting most of the morning making plans for Hurricane Emily's potential arrival. Sanchez had already been in contact with IS-MPMI President Jonathan Walton and had arranged a meeting with the Fiesta Americana management and the Congress organizing committee.

When they met at 1:00 p.m. Fiesta Americana management told Sanchez that by law the hotel facilities had to be used as a refuge and that they were preparing for the worst. They were making arrangements for hotel guests to be housed in the conference ballroom where the IS-MPMI Congress was to be held. Recalls Sanchez, "The personal safety of the Congress attendees was my major priority at that moment! Locals were very afraid because they still had the tragic memory of hurricane Gilbert, which devastated Cancun in September of 1988, and Emily was predicted to have similar if not identical weather enhancing conditions. There was no question that the right thing to do was to postpone the Congress."

Congress Postponement continued on page 2

Congress Postponement *continued from page 1*

By this time it was early afternoon. Announcements were posted on the Congress website and on the IS-MPMI website and emails were sent to Congress attendees and IS-MPMI members notifying them of the cancellation. Says Sanchez, "We did what we could given the fact that communications were not as easy as they would have been had I been in my office. I was working out of a hotel in a city expecting the possibility of mass devastation. Needless to say, phone lines were in constant use."

Having done what he could to contact attendees who had not yet left for the Congress, Sanchez turned his attention to finding and assisting those attendees who had already arrived. Attempts were made to contact all attendees staying at the hotels associated with the Congress (the Fiesta Americana, Hyatt Regency and NH Krystal) and those attendees that had used the airport transportation service. An informational meeting was set up at the Fiesta Americana for that evening at 7:00 p.m. and another meeting was scheduled for the next day, Saturday, July 16.

Posters regarding the cancelled Congress and the informational meetings were posted at the Hyatt Regency and NH Krystal. Unfortunately, not all of the hotels were cooperative. Says Sanchez, "In one case we found that posters were systematically removed by hotel staff who argued that other tourists will be scared away from their hotel."

Sanchez and the Congress organizers did what they could to help those attendees who wanted to leave. They reserved as many seats as possible on flights leaving Cancun and helped students cover unanticipated expenses. They also rented three buses to take attendees inland out of the hurricane's path. Around 11 p.m. on Saturday, Sanchez, his wife and Co-Organizer Carmen, and about 125 Congress attendees boarded buses bound for Mexico City. About 30 attendees opted to stay. After a long, 25 hour bus ride, attendees were taken to a hotel near the Mexico City airport and a hospitality desk was set up to assist them in arranging flights home.

When Hurricane Emily struck Cancun, it was with category 4 force — the second highest on the scale of intensity

— with winds of 135 mph. The storm made landfall just north of Tulum on Monday, with the eye of the storm passing over the island of Cozumel, south of Cancun. All together about 30,000 tourists were moved inland to better-protected hotels, or packed into emergency shelters in community centers and schools. Cancun's international airport was closed for at least 48 hours.

While Sanchez regretted the inconvenience that many attendees encountered due to the cancellation of the Congress, he is convinced that it was the right thing to do. "It could have been disastrous," says Sanchez. "I was not willing to take any risks with people's lives by suggesting that they should fly into a hurricane."

Although exhausted by the experience, Sanchez took a brief one-week vacation before starting plans for the rescheduled Congress that will be held December 14-18, 2005 at the original Fiesta Americana site. "The hotel was very accommodating, honoring our original agreement and charging us as minimally as possible for any losses," says Sanchez. Most importantly, almost all of the original speakers agreed to return in December and new posters and abstracts have been added.

Unfortunately, the change in dates has meant that some people who originally planned to attend can no longer come, says Sanchez. "But we've also heard from many more who can now attend because of the new dates," he adds. Prior registrants need to complete the confirmation form online at the Congress website (<http://www.ibt.unam.mx/cancun2005/index.html>). New attendees must also register online and are being asked to make payment by November 30, 2005.

Sanchez is anticipating some reduction in attendance, though he says that the number of new registrants has been encouraging and might end up outnumbering the number of cancellations. Cancun is at its best in December, says Sanchez, with daytime temperatures averaging 83F. "Best of all," he adds, "there will be no need to worry about hurricanes!"

Thanks To You,

IS-MPMI Is

Growing!

You are the single most important source of new member referrals.

Keep the momentum going.

Tell a colleague about membership in IS-MPMI.

Information is available online at www.ismpminet.org



International Society for Molecular
Plant-Microbe Interactions

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 members at different career stages and chosen randomly.

Correction: In Issue 1, 2005, of the IS-MPMI Reporter, it was erroneously noted that Dimitrios I. Tsitsigiannis was a student member of IS-MPMI. He is actually a postdoc and has been since July 2004. We regret this mistake and send our apologies to Mr. Tsitsigiannis for this error.

Student



Cynthia Damasceno

Department of Plant Biology
Cornell University
Ithaca, NY, U.S.A.

I was first introduced to molecular plant-pathogen interactions during my undergraduate and MS degree work in the Federal University of Viçosa, Brazil, one of the best institutions devoted to agricultural sciences in Latin America. I received

my MS degree in the field of genetics and breeding in 2001 and began working as a research assistant for a local biotech company, applying PCR-based techniques to detect and quantify transgenic plant materials in food. After one year, I decided to pursue a Ph.D. degree at Cornell University in the field of plant pathology and was awarded a scholarship from the Brazilian National Council for Scientific and Technological Development (CNPq).

Currently, I am pursuing my Ph.D. studies in Jocelyn Rose's lab (Dept. of Plant Biology, Cornell University). The research interests in the Rose lab are centered on the structure, function, and metabolism of plant cell walls and their pivotal role in growth, development, and interactions with pathogens. The apoplastic compartment can be seen as a 'molecular battleground' in which mechanisms for attack, defense, and counterdefense are deployed by both host and pathogen. Therefore, I am very interested in the importance of secreted proteins for plant-pathogen interactions and the application of proteomics to characterize plant extracellular protein populations during pathogenesis. My work focuses on late blight disease (*Phytophthora infestans*) of tomato, and I am directly involved in cell wall proteomics/secretome research in our lab, in which I compare apoplastic protein populations in infected and noninfected tomato leaves, using two-dimensional gels and DIGE technology.

I am also currently studying a class of proteins termed glucanase inhibitor proteins (GIPs) that are secreted by *Phytophthora* pathogens into the plant cell wall during infection. GIPs were first reported in *P. sojae* (Rose et al. 2002) and show homology to serine proteases, although they lack proteolytic function. It is hypothesized that GIPs are used by the pathogen as a counterdefense mechanism because they specifically bind and inhibit the activity

of plant extracellular endo- β -1,3-glucanases (EGases), blocking the release of glucan elicitors. In order to further understand the GIP-EGase interactions, I am investigating: (1) the identity of the GIP-EGase pairs that interact in planta; (2) the molecular basis of GIP action and specificity; and (3) the evolutionary relationship between GIPs and functional serine proteases from *P. infestans*.

My interest in joining the IS-MPMI last year was due to the possibility of interaction with fellow researchers working in the same field. I have always found that collaborations are a great way to do science, and the IS-MPMI community seems very receptive and well organized. I was very impressed with the efficiency of the work done by the organizers to reschedule the MPMI meeting. Needless to say, I am very enthusiastic about attending the meeting for the first time in December and presenting my recent findings. I also look forward to meeting and talking with other members of this society and keeping myself informed of new developments in our field.

Postdoctoral



Johan Kers

Department of Plant Pathology
Cornell University
Ithaca, NY, U.S.A.

I am currently a Ph.D. candidate in the Department of Plant Pathology at Cornell University in Ithaca, NY. After completing a Bachelor's degree in biology at Dordt College (Sioux Center, Iowa) in 1996, I began working as a research technician in the laboratory of George Lazarovits

at Agriculture Canada in London, Ontario, studying the efficacy of organic amendments for the biological control of soilborne plant diseases.

Many days spent monitoring field research plots and enumerating soil microbial populations in the lab developed my interest in plant-microbe and microbe-microbe interactions. In 1998, I continued my tenure in the Lazarovits lab as a M.Sc. student enrolled at the University of Western Ontario. My thesis project involved the development of genetically marked strains of *Streptomyces scabies* (a causal agent of potato scab) as a tool to study the population ecology of these plant-pathogenic bacteria.

Meet IS-MPMI Members continued on page 4

Meet IS-MPMI Members *continued from page 3*

Then in 2001, I moved to Cornell University and joined the laboratory of Rosemary Loria as a Ph.D. student.

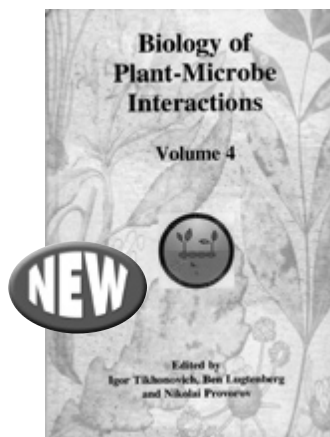
My work in the Loria lab has largely focused on the molecular mechanisms of pathogenicity in *Streptomyces* spp. A highlight of my research has been the discovery of a new biosynthetic function for prokaryotic nitric oxide synthases. Plant-pathogenic streptomycetes produce nitric oxide using nitric oxide synthases for the biosynthesis of a nitrated phytotoxin (Kers et al. 2004, *Nature* 429:79-82). In addition, I have been involved in the discovery and characterization of a large, mobile pathogenicity island conserved among plant pathogenic streptomycetes that is responsible for the emergence of new pathogenic species in agricultural soils (Kers et al. 2005, *Mol. Micro.* 55:1025-33).

I have recently accepted a postdoctoral fellowship in the laboratory of Stanley Cohen at Stanford University, where I plan to study novel bacterial mechanisms for environmental sensing and gene regulation.

MPMI meetings and publications have been a great help to me in my professional development as a scientist. The common mechanisms used by prokaryotes to communicate with and manipulate eukaryotes has made the contributions of other plant-microbe researchers invaluable for the interpretation of my research as well as for my understanding of this field in general. IS-MPMI provides great opportunities to meet and learn from other members of this field.

NEW from IS-MPMI

www.ismpminet.org



2004; 6 x 9 hardcover; 633 pages; 160 black and white illustrations, figures, and photos (est.); ISBN 0-9645625-3-6 (3 pounds); Item No. 62536
\$139

Biology of Plant-Microbe Interactions, Volume 4

Edited by Igor Tikhonovich, Ben Lugtenberg and Nikolai Provorov

This new volume provides a comprehensive summary of the current status of research in plant-microbe interactions as presented at the 11th International Congress on Molecular Plant-Microbe Interactions. These papers include information on nearly all the major crops cultivated throughout the world and on the major trends in the modern research of plant-microbe interactions, including molecular dialogue of partners, integration of plant and microbial metabolic pathways, and development of novel cellular and tissue structures during interactions.

This volume is useful for a wide audience of researchers specializing in molecular biology, genetics, different areas of microbiology and plant science, agrochemistry, and soil biology. The review papers written by the leading specialists in molecular plant-microbe interactions will be useful for specialists and students in agricultural production and related specialties.

Partial contents:

Introductory papers: Molecular plant-microbe interactions: new bridges between past and future; Plant-microbe interactions: fundamental and applied research in Russia; Signaling and recognition in plant-pathogen systems; Cellular mechanisms of plant-microbe interactions; Plant-virus interactions; Bacterial virulence; Type III secretion in pathogenic bacteria; Virulence in plant-fungal pathosystems; Local/systemic resistance; Mechanisms of plant defence; Evolution of plant defence; Co-evolution and breeding in fungal pathosystems; Molecular plant-nematode interactions; Biocontrol of pathogens; Signaling in beneficial plant-microbe interactions; Developmental impacts of plant-microbe symbioses; Hormonal regulation of plant-microbe interactions; Biochemistry of beneficial plant-microbe interactions; Diversity of plant-microbe interactions; Mycorrhizae; Plant symbiotic genes; Microbial tools for plant engineering; Plant-microbe molecular entity in soil; Microbes in sustainable agriculture; Appendix; Authors index; Subject index

International Society for Molecular Plant-Microbe Interactions

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#M8073-9/05

IS-MPMI member Anne Osbourn wins "Dreamtime" Fellowship

Anne Osbourn, senior researcher at the John Innes Centre, Norwich, U.K., has just finished a one-year "Dreamtime" Fellowship sponsored by the U.K. National Endowment for Science, Technology, and the Arts. Anne, a long-time member of IS-MPMI, has served the society as a senior editor of MPMI and as a member of the IS-MPMI Board of Directors. During her fellowship year, Anne joined the University of East Anglia's School of Literature, where she interacted with poets and other cultural luminaries as well as producing her own body of poetry.

One of the outcomes of Anne's fellowship year is a new program, called SAW (Science, Art, and Writing), designed to introduce young children to science through art and poetry. In explaining the motivation behind SAW, Anne says, "I want people to think of science as their friend, rather than as a threatening evil. But I know science can be cold and clinical. Scientists have a duty to communicate their science to the society in which it impacts. Yet science leaves so much to be said about itself and there is so much miscommunication and trust."

The first product of SAW is a beautiful 60-page collection of art and poetry created by school children in response to photographs of natural phenomena including planets, ammonites, pollen grains, leaves, dust mites, lightning, and even *E. coli*.

More information about SAW can be found by contacting Anne (annie.osbourn@sainsbury-laboratory.ac.uk) or at the SAW website (www.sawtrust.org).

Upcoming Meetings

December 8–10, 2005. Asian Conference on Emerging Trends in Plant-Microbe Interactions. Chennai, India. E-mail: gmanick@vsnl.com or anandalgae@hotmail.com for more information.

December 14–18, 2005. XII International Congress on Molecular Plant-Microbe Interactions. Cancun, Mexico. Contact: Professor Federico Sánchez, federico@ibt.unam.mx or visit <http://www.ibt.unam.mx/cancun2005/> for more information.

Welcome New Members

The following members joined IS-MPMI between April 1, 2005 and September 15, 2005. Please join us in welcoming them to the Society!

Robert Ascenzi

BASF Plant Sciences LLC
Res Triangle Park, NC, U.S.A.

Attila Kereszt

University of Queensland
St Lucia, Brisbane, QLD, Australia

Gail M. Teitzel

University of Chicago
Chicago, IL, U.S.A.

Vasudevan Balaji

Tel Aviv University
Tel Aviv, Israel

Xinyan Li

Kansas State University
Manhattan, KS, U.S.A.

Max Teplitski

University of Florida
Gainesville, FL, U.S.A.

Sebastien Duplessis

INRA
Champenoux, France

Zhonglin Mou

University of Florida
Gainesville, FL, U.S.A.

Cyril Zipfel

John Innes Centre
Norwich, United Kingdom

Steve Hill

BASF Corp
Res Triangle Park, NC, U.S.A.

Maike C. Rentel

University of California
Berkeley, CA, U.S.A.

Hikomichi Ishihara

Colorado State University
Fort Collins, CO, U.S.A.

Felice Scala

University Degli Studi Di Napoli
Portici, Italy

Postdoctoral Position in Plant-Microbe Interactions — MSU-DOE PLANT RESEARCH LABORATORY, Michigan State University

The MSU-DOE Plant Research Laboratory (PRL) has a postdoctoral position available immediately in Dr. Sheng Yang He's laboratory. Candidates should plan to employ state-of-the-art technologies to investigate important problems in compatible plant-*Pseudomonas syringae* interactions. We are especially interested in identifying individuals who have a strong background in molecular genetics, plant-microbe interactions, and/or plant pathology.

The PRL (<http://www.prl.msu.edu/>), with funding from the U.S. Department of Energy, provides an excellent environment for training postdoctoral students in plant biology and plant-microbe interactions. Michigan State University, with unusual breadth and depth in the plant sciences, provides a stimulating atmosphere with excellent genomics facilities and colleagues for high-quality research.

Applicants should have a Ph.D. degree by the time he or she starts postdoctoral research in the PRL. To assure consideration, applications should be received by October 15, 2005. Applications should include a curriculum vitae, a brief description of future interest, and names of three referees. Questions regarding this position or electronic submission of applications should be directed to hes@msu.edu or materials may be sent to: Sheng Yang He, <http://www.prl.msu.edu/he.shtml>, MSU-DOE Plant Research Laboratory, Michigan State University, East Lansing, MI 48824. Michigan State University is an equal opportunity/affirmative action employer.

Postdoctoral Position—Functional Analysis of Symbiosome Membrane Proteins from *Medicago truncatula* Root Nodules

A nitrogen-fixing root nodule is a novel plant organ formed by a symbiotic interaction between rhizobia and its legume host plant. Within the nodule, a plant-derived membrane called the symbiosome membrane encloses the bacteria and creates a unique biochemical compartment within the plant cell. The goal of this project is to characterize the function of individual symbiosome membrane proteins in the development and function of *Medicago truncatula* root nodules. The research team at the University of Delaware has established methods for symbiosome membrane isolation, protein characterization, detailed microscopic analysis of nodule development, and *Medicago* transformation. The postdoctoral researcher participating in this project will address the scientific question with a multidisciplinary approach combining proteomics, microscopy, cell biological, and molecular biological techniques. This project will be carried out in the Delaware Biotechnology Institute, a modern, well-equipped research facility at the University of Delaware (<http://www.dbi.udel.edu/>). The position is available in October 2005, for a period of 24 months. Candidates

should have a Ph.D. in plant biology or closely related field, extensive experience in plant molecular biology, and the ability to work well as part of a team. Applicants should send a curriculum vitae and names and addresses of three references to Kathleen Turner at ktturner@udel.edu.

Graduate Student Assistantships—Plant-Virus Interactions in *Arabidopsis* Northern Illinois University, Plant Molecular Biology Center, DeKalb, Jozef Bujarski Laboratory

Four-year graduate student assistantships are available to conduct research on the role of host genes and their functions during RNA virus genetic RNA-RNA recombination and replication. The PI has developed an experimental system of *Arabidopsis thaliana* that supports RNA recombination and replication of *Brome mosaic bromovirus* (BMV), a model (+) stranded RNA virus (see Dzianott, and Bujarski, *Virology* 318:482-92). Both homologous and nonhomologous RNA-RNA crossovers can be studied with this system. Also, we have discovered a novel subgenomic RNA in BMV, and its role during RNA recombination is another subject of extensive studies. Additional funds for research and travel to professional meetings will also be available. Motivated individuals (with background in microbiology, genetics, chemistry, or plant science) are invited to apply. Please submit a curriculum vitae and a letter describing your goals and interests to: Dr. Jozef Bujarski (jbujarski@niu.edu). Excellent facilities and an outstanding environment are available at our Plant Molecular Biology Center. More information can be found on <http://www.bios.niu.edu/pmbc/pmbc.html>.

Faculty Position in Plant Pathology/Mycology

The Department of Plant Pathology at Iowa State University is seeking to fill a faculty position in plant pathology/mycology at the assistant, associate, or full professor level. The successful candidate will join a large, dynamic, highly interdisciplinary group of researchers studying soybean diseases from a variety of perspectives. He or she will be expected to establish a vigorous, externally funded, independent research program on fungal diseases of soybean. In the event that Asian soybean rust becomes a significant threat in Iowa, the candidate will be expected to include this disease in his or her research program. The candidate may use any of a variety of research approaches, from field to molecular, to address fundamental questions in the chosen pathosystem(s). The position will be a 12-month appointment with 80% research and 20% teaching responsibilities. Teaching includes a course in mycology and active participation in graduate education. The position is accompanied by an exceptional start-up package and excellent opportunities for competitive funding. Candidates must have a Ph.D. or comparable terminal degree in plant pathology, mycology, or a related field and excellent written and oral communication skills. Prior experience in soybean research is not required. Candidates at the associate professor and full professor

levels must have a demonstrated record of excellence in research, teaching, and graduate training. Applicants for full professor must have a national reputation in scholarship. To guarantee consideration, complete applications should be received by November 1, 2005. Applications must include a cover letter, curriculum vitae, statements of research and teaching interests, and reprints of up to three publications. Please send applications and have three letters of recommendation sent to: Plant Pathology/Mycology Search Committee, Dept. of Plant Pathology, 351 Bessey Hall, Iowa State University, Ames, IA 50011, U.S.A. E-mail applications will not be accepted. Iowa State University is an Equal Opportunity/Affirmative Action employer. Applications from women and minority candidates are encouraged. For further information contact Charlotte Bronson (cbronson@iastate.edu) or Thomas Baum (tbaum@iastate.edu), chair of the search committee. The Department of Plant Pathology at Iowa State University has strong, well-funded, nationally and internationally recognized research programs representing the complete spectrum of the discipline of plant pathology. Research programs extend from applied field-based research to fundamental cellular and subcellular research. In 2004, the average grant dollars garnered per faculty member exceeded \$350,000. Iowa State University is among the nation's leading universities in research and technology transfer accomplishments. The university is especially strong in the plant sciences, plant molecular biology, agricultural biotechnology, plant and animal genomics, bioinformatics, agricultural product and market development, biorenewables, and food safety and security. Iowa State's nearly 2,000-acre, park-like campus is located in Ames, Iowa. Ames is ranked as the second most livable small city in the nation by the New Rating Guide to Life in America's Small Cities.

**Postdoctoral Position in Fungal Molecular Biology—
Department of Botany and Center for Integrated
Fungal Research, North Carolina State University,
Raleigh, NC**

A postdoctoral position is available to identify and characterize genes involved in resistance of *Cercospora* fungi to a light-activated toxin that they produce for parasitism of plants. Cercosporin generates singlet oxygen and superoxide when exposed to light, and has almost universal toxicity to cells. The producing fungus, however, is immune. In previous work, we identified a gene encoding a zinc cluster transcription factor (CRG1) that is required for resistance of the fungus to its own toxin. We used subtractive hybridization to create a library of genes differentially regulated between the wild type and a *crg1* disruption mutant and have completed

sequencing and initial characterization of our clones. The postdoctoral position will focus on characterizing selected genes and determining their role in cercosporin resistance by targeted gene disruption, expression in sensitive fungi, and regulation and cellular localization studies. Our ultimate goal is to investigate the utility of such genes in engineering plants for toxin and disease resistance. Additional information about the laboratory may be found at <http://www.cals.ncsu.edu/botany/faculty/mdaub/mdaub.html> or by E-mail to margaret_daub@ncsu.edu. Information on the Center for Integrated Fungal Research may be found at <http://www.cifr.ncsu.edu/>. Applicants must have a Ph.D. in plant pathology, mycology, or related life sciences discipline and be proficient in standard molecular biology techniques, including cloning and PCR-based techniques. Experience with filamentous fungi, including transformation and gene disruption, is strongly preferred. Experience with microarrays is a plus. Applicants must have strong oral and written communication skills and the ability to work independently. Position is available October 1. Please send letter of interest, curriculum vitae, and names and contact information for three references to: Dr. Margaret Daub, Department of Botany, North Carolina State University, Raleigh, NC 27695-7612 or by E-mail to margaret_daub@ncsu.edu. NC State University is an equal opportunity and affirmative action employer.

**Post Doctoral Associate—AES Rice Research &
Extension Center, USDA-ARS Dale Bumpers National
Rice Research Center, Stuttgart, AR.**

Postdoctoral Molecular Plant Pathologist, 12 month non-tenure track position. Located at the DBNRRRC (<http://www.dbnrrc.ars.usda.gov/>) in Stuttgart, AR in cooperation with University of Arkansas Rice Research and Extension Center. Duties include planning, conducting and publishing basic and applied research on the examination of stability of rice blast resistance and development of molecular strategies to control rice blast and sheath blight diseases. The selected candidate is expected to use modern molecular genetics and plant pathology techniques to identify and characterize novel resistance genes for rice improvement through biotechnology. Go to <http://hr.uark.edu/employment/listingsjob.sp?ListingID=3414> for a complete description including qualifications for the position. Interested applicants should send their resume, official college transcript and three letters of recommendation from knowledgeable associates to: Dr. Yulin Jia, c/o Ms. Dee Henderson USDA-ARS DB NRRRC, 2890 Hwy 130 E, PO Box 1090, Stuttgart, AR 72160 870-672-9300. CLOSING DATE: October 21, 2005 or until a suitable candidate is identified.

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Tobacco Transcription Factor WRKY1 Is Phosphorylated by the MAP Kinase SIPK and Mediates HR-Like Cell Death in Tobacco. F. L. H. Menke, H.-G. Kang, Z. Chen, J. Mee Park, D. Kumar, and D. F. Klessig.

Two Classes of Highly Similar Coiled Coil-Nucleotide Binding-Leucine Rich Repeat Genes Isolated from the *Rps1-k* Locus Encode *Phytophthora* Resistance in Soybean. H. Gao, N. N. Narayanan, L. Ellison, and M. K. Bhattacharyya.

A New Hypothesis on the Strategy for Acquisition of Phosphorus in Arbuscular Mycorrhiza: Up-Regulation of Secreted Acid Phosphatase Gene in the Host Plant. T. Ezawa, M. Hayatsu, and M. Saito.

Natural Variation in the *Arabidopsis* Response to the Avirulence Gene *hopPsyA* Uncouples the Hypersensitive Response from Disease Resistance, W. Gassmann.

Role of Methylophony During Symbiosis Between *Methylobacterium nodulans* and *Crotalaria podocarpa*. P. Jourand, A. Renier, S. Rapior, S. Miana de Faria, Y. Prin, A. Galiana, E. Giraud, and B. Dreyfus.

Suppression of Root Nodule Formation by Artificial Expression of the *TrEnodDRI* (Coat Protein of White clover cryptic virus 1) Gene in *Lotus japonicus*. M. Nakatsukasa-Akune, K. Yamashita, Y. Shimoda, T. Uchiumi, M. Abe, T. Aoki, A. Kamizawa, S.-i. Ayabe, S. Higashi, and A. Suzuki.

Aspergillus Infection Inhibits the Expression of Peanut 13S-HPODE-Forming Seed Lipoxygenases. D. I. Tsitsigiannis, S. Kunze, D. K. Willis, I. Feussner, and N. P. Keller.

Identification of a Tomatinase in the Tomato-Pathogenic Actinomycete *Clavibacter michiganensis* subsp. *michiganensis* NCPPB382. O. Kaup, I. Gräfen, E.-M. Zellermann, R. Eichenlaub, and K.-H. Gartemann.

RNA Interference of Dual Oxidase in the Plant Nematode *Meloidogyne incognita*. M. Bakhietia, W. Charlton, H. J. Atkinson, and M. J. McPherson.

Potato Homologs of *Arabidopsis thaliana* Genes Functional in Defense Signaling—Identification, Genetic Mapping, and Molecular Cloning. K. M. Pajeroska, J. E. Parker, and C. Gebhardt.

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Bacterial Type Two Secretion System Secreted Proteins: Double-Edged Swords for Plant Pathogens. G. Jha, R. Rajeshwari, and R. V. Sonti.



Recent Advances in Studies on Structure and Symbiosis-Related Function of Rhizobial K-Antigens and Lipopolysaccharides. A. Becker, N. Fraysse, and L. Sharypova.

A Pattern Recognition Tool for Quantitative Analysis of In Planta Hyphal Growth of Powdery Mildew Fungi. U. Seiffert and P. Schweizer.

Gene Profiling of a Compatible Interaction Between *Phytophthora infestans* and *Solanum tuberosum* Suggests a Role for Carbonic Anhydrase. S. Restrepo, K. L. Myers, O. del Pozo, G. B. Martin, A. L. Hart, C. R. Buell, W. E. Fry, and C. D. Smart.

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In Memory



Milton Gordon, 1930-2005

Milton Gordon was a highly respected researcher and long-time member of IS-MPMI. He was previously profiled in Issue 1, 2004, of the IS-MPMI Reporter. His wife Elaine sent the following obituary to IS-MPMI headquarters.

Milton P. "Milt" Gordon of Seattle died in his home on July 5, 2005. For three years, Milt had been declining physically with Multiple Systems Atrophy (MSA), a degenerative neurological disease

known as Shy-Drager Syndrome. During the past year, he coped bravely with the daily measures required of him to stay alive as his muscles and bodily functions deteriorated. Even in his last year, his impish smile and mild manner were evident, along with his ability to see the humorous side of things, characteristics for which he was well known. He remained alert and caring until his final breaths.

Milt worked at the University of Washington as a professor in the Department of Biochemistry until 2003, when, following a 45-year career, he was awarded the title professor emeritus. Even in his final days of life, he maintained a lively interest in his research, which dealt with the genetic engineering of plants—research that opened new vistas in biotechnology. When, beginning in April 2004, he could no longer attend research conferences; he requested tapes and listened to recordings of the presentations. He even provided input on a grant report written by a junior colleague.

For the past 30 years, Milt and his colleague, Gene Nester, had collaborated to prove that a simple bacterium could transform plant cells by introducing genes for growth hormones. This discovery of a simple technique for using *Agrobacterium tumefaciens*, a natural genetic engineer, to introduce foreign genes into plants has now become a common method for the genetic engineering of plants. "This biological process is similar to the Ford management invading the Chrysler factory and making the Chrysler factory produce Fords," Milt explained. Other scientists have subsequently used this technique to make plants

more nutritious as well as herbicide and insect resistant. "I hope I leave this world a better place," Milt said of his work. "We're using genetic engineering procedures to create plants that are custom-made to destroy environmental pollutants. The materials are taken up by the plants and rendered harmless. I hope that genetic engineering will one day be as important to agriculture as the plow or tractor. Genetic engineering is the basis for a new agricultural revolution. It's a partial answer to world hunger."

Milt and Gene also pioneered discoveries that unraveled the molecular basis of plant cell transformation by *Agrobacterium tumefaciens* and its role in crown gall tumor formation. This research received international recognition. Milt was elected to the Academy of Microbiology for his research, informally known as "the green solution to pollution." Milt's work was honored with the Milton P. Gordon Lectureship, established by his colleagues, students, and long-time friends. In December 2004, he was able to attend the first of what is to be an annual lecture. "I've had the best possible career—great colleagues and students," Milt said.

The compliment was returned. Toby Bradshaw, who was one of Milt's postdocs and, later, a research assistant said of Milt, "In all the 11 years, 10 hours plus a day, I sat at my desk and worked in the laboratory outside Milt's office, I never heard him raise his voice, and never heard an unkind word cross his lips, though the temptation must have been strong at times."

Bradshaw continued, "Everyone who knows Milt will attest to his unflagging sense of humor, optimism, and ability to foster creativity and independence in his postdocs and students. He was one of the rare people who can take more pleasure in the success of others than in his own successes, which were many. He loved everything about science and was motivated purely by curiosity about how the world works. He generously shared with all of us. I've never known a better human being."

More information on Milton Gordon's life and career, including information on his doctoral students can be found at <http://depts.washington.edu/biowww/miltongordon>

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