

IN THIS ISSUE

New Dates for 11th International Congress 1
Potus and the Fish 2
New Post-Doc IS-MPMI Membership Now
Available
Calendar of Events 3
New Members 5
Employment 4-5
IS-MPMI Journal Articles

IS-MPMI REPORTER DEADLINE

Deadline for submitting items for the next issue is February 25, 2003.

Submission of materials as electronic files, either on disk or as e-mail attachments, will speed processing. Please submit black-andwhite or color photos generated from negatives. If your image was created digitally, please submit a laser print of the image and a disk containing the electronic graphics file (.tif and .eps formats are preferred).

For more information on submitting electronic images contact Kayleen Larson at klarson@uslink.net.

Send items to:

Senior Editor: Jonathan D. Walton Michigan State University, DOE – Plant Research Lab East Lansing, MI 48824 Phone: 517.353.4885 Fax: 517.353.9168 E-mail: walton@msu.edu

New Dates Set For 11th International Congress **On Molecular Plant-Microbe Interactions**

Organizers of the upcoming Congress on Molecular Plant-Microbe Interactions in St. Petersburg, Russia, have reduced the Congress duration by one day in order to concentrate on the program. The new dates for the Congress meeting are July 18-26, 2003. The closing ceremony will be on Friday, July 25 and the departure day will be Saturday, July 26.

The Congress is the biggest gathering of its kind and attracts a large number of attendees. The scientific program at this year's Congress will cover:

- Pathogenic fungi and bacteria
- Genetic colonization of plants (viruses, agrobacteria)
- Signaling and recognition
- Nodulation and mycorrhization
- Endophytes and epiphytes
- Functional and comparative genomics
- Gene expression, proteomics and metabolomics
- N2 fixation inside and outside the plant
- · Genetic and metabolic integration
- Diversity and evolution
- Biocontrol and stress adaptation
- Plant ecology and sustainability
- Improvement and application

This year's plenary speakers include:

Carol Bender (USA); Sir John Beringer (UK); Ton Bisseling (The Netherlands); Christian Boucher (France); William Broughton (Switzerland); Nick Brewin (UK); James Carrington (USA); Casey Crooks (UK); Jeff Dangl (USA); Jean Denarie (France); Yury Dyakov (Russia); Vivienne Gianinazzi-Pearson (France); Dieter Haas (Switzerland); Maria Harrison (USA); Sheng Yang He (USA); Hauke Hennecke (Switzerland); Ann Hirsch (USA); Sergey Inge-Vechtomov (Russia); Jonathan Jones (UK); Christina Kennedy (USA); Adam Kondorosi (France); Eva Kondorosi (France); Jan Leach (USA); Andrzej Legocki (Poland); Ben Lugtenberg (The Netherlands); Gregory Martin (USA); Eugene Nester (USA); Charles Opperman (USA); Anne Osbourn (UK); Martin Parniske (UK); Alfred Puhler (Germany); Barbara Reinhold-Hurek (Germany); Barry Rolfe (Australia); Paul Schulze-Lefert (Germany); Konstantin Skryabin (Russia); Stewart Smith (USA); Brian Staskawicz (USA); Jens Stougaard (Denmark); Paul Tudzynski (Germany); John Turner (UK); Carroll Vance (USA); Marc Van Montagu (Belgium); Jonathan Walton (USA); Valerie Williamson (USA); Pierre de Wit (The Netherlands)



St Petersburg

Important Date and Deadlines:

Preliminary online registration is continuing. Abstract submission: December 20, 2002 Hotel Pribaltiyskaya reservation: November 1, 2002 Hotel Ohtinskaya reservations: April 1, 2003 Transfer of payments: after May 1, 2003 - late registration. Visa support registration: April 15, 2003.

To register online and to find out more, visit the Congress's website at http://www.arriam.spb.ru/mpmi



St Petersburg

"In the interest of informing scientists throughout the world how they can contribute to the debate on important global problems, we reprint this recent editorial by Donald Kennedy, professor of biology at Stanford University, former president of Stanford, Commissioner of the U.S. Food and Drug Administration, and currently editor-in-chief of Science magazine. POTUS is the Secret Service code word for the President of the United States."

POTUS and the Fish

Donald Kennedy, editor in chief of Science

Summer is the time for fun-and as I write, looking at today's New York Times (8 July), there is the president of the United States having some. In a photograph above the fold, he is helping his daughter Jenna boat an impressively large fish. It is not named in the caption but is readily identifiable as Morone saxatilis, called striped bass by us New Englanders, though doubtless known to the White House chef by its Chesapeake name, rockfish. Everyone in the picture is having a wonderful time. But the president, without his knowl-



indeed: significant advances in the dates for first breeding in a number of bird species; changes in the dates at which British plants first flower; upward shifts in the distribution of Alpine flowering plants, at rates up to 4 meters of elevation per decade; and northward adjustments in the distribution of several species of North American butterflies. Such changes document the reality of global warming, though they are not necessary for that purpose, as we now have so much physical data (ranging from average global temperature to rates at

edge, has just captured a fish with a message.

In my summertime reverie, I imagined that the 43rd president might have turned to no. 41, who was driving the boat, and said "Gee, Dad-did you catch 'em like this when you were Jenna's age?" Although tempted to employ the usual fisherman's license to lie, former President Bush would have had to answer: "No. son. I don't remember that we did." In fact, when I was Jenna's age and studying fish biology at Woods Hole, it was almost a mantra that stripers (and blue-fish, another sportfishing favorite) were relatively scarce north of Cape Cod.

The recent northward redistribution surely delights the Bushes and other Gulf of Maine fishermen. More important, these changes in biogeography have many parallels, as the striper's message to the president is repeated elsewhere. On the West Coast, in the intertidal at Hopkins Marine Station near Monterey, California, old transects made in John Steinbeck's day have been reexamined, demonstrating a massive replacement of northern invertebrates by ones with a more southern distribution. On land, around the Bush estate in Kennebunkport, Maine, American cardinals, birds unknown in New England in my youth, now not only breed but even come to feeders in the dead of winter!

These observations typify a growing host of phenetic studies that have documented biological responses to global warming during the past century. The list is rich

which glaciers are receding or river ice breaks up) to show that it's happening. But examining the biological impacts is useful for at least two reasons.

The first is that it tells us something about what continuing change may portend. What is clear is that natural communities will not be displaced intact as the temperature rises. Each ecosystem depends on a kind of coevolved synchrony, in which flowers and pollinators, predators and prey, herbivores and their food plants not only depend on one another but also on one another's timing. If the flower isn't blooming, the butterfly can't pollinate it: result, no nectar for the insect, no seeds for the plant. Most of the studies show that different species respond at different rates, dismembering communities that once worked well together. It is something we should expect in estimating the impacts of climate change.

The second is that the biological effects tell us things directly that we can otherwise learn of only from someone else's numbers. Anyone my age (I'm 71) can document such changes as a result of personal experience. That's why it always surprises me when thoughtful outdoorsmen like the president don't buy into the reality of global warming right away, without requiring persuasion from bevies of advisers.

My impression is that President Bush is coming awake to this particular problem, and he probably doesn't need much help from me. Nevertheless, here is a suggestion.

The next time he meets with a group of old friends from the oil bidness who are still in denial about climate change, he should tell them a fish story. The message from Jenna's striper could just as well have come in a bottle from the scientific community: Climate change is real, and it's time to do something.

Footnote: For a follow-up comment on this editorial, that illustrates that life is not always so neat, see the letter by Sidney Pierce (and response by Kennedy) in Science 297:1995.

NEW Post-Doc IS-MPMI Membership Now Available.

The IS-MPMI members overwhelmingly approved a recent Bylaws Amendment ballot adding a new post-doctoral category of membership. Those in a post-doctoral position at an educational institution can now join IS-MPMI for a reduced annual membership rate of \$30. The new category was created to make it possible for more individuals in post-doctoral positions (who are frequently on limited incomes) to join IS-MPMI. Members are encouraged to share the news of this new membership option with anyone they know who might qualify. Post-docs interested in joining IS-MPMI can find out more at IS-MPMI's website www.ismpmi.org, or by contacting Denise Kessler at +1.651.454.7250, email: dkessler@scisoc.org



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NEW TITLE

Biology of Plant-Microbe Interactions, Volume 3

Partial Contents Keynote Address; Recognition of Pathogens by Plants; Defense Signal Transduction; Local/Systemic Resistance; Secretion avr/vir Factors; Plant-Virus Interactions; Plant-Rhizobium Interactions; Plant-Fungal Interactions; Plant-Nematode Interactions; Ecology and Population Biology of Plant-Associated Microbes; Novel Plant-Microbe Relationships; Cell Biology of Plant-Microbe Interactions; Functional Genomics and Biotechnology; Teaching Molecular Plant-Microbe Interactions; Subject-Author Index



International Society for Molecular Plant-Microbe Interactions 3340 Pilot Knob Road St. Paul, Minnesota 55121-2097 U.S.A.

Calendar of Events

8th International Congress of Plant Pathology (ICPP2003)

February 2-8, 2003, Christchurch, New Zealand "Solving Problems in the Real World", Contact: Helen Shrewsbury, Professional Development Group, PO Box 84, Lincoln University, Canterbury, New Zealand (shrewsbh@lincoln.ac.nz). Registration details and other information is available on the ICPP2003 website http://www.lincoln.ac.nz/icpp2003/.

11-th International Congress on Molecular Plant-Microbe Interactions

July 18-26, 2003, St. Petersburg, Russia Contact: http://www.arriam.spb.ru/mpmi/

Tenth Cell Wall Meeting, 2004,

August 29 - September 3, 2004, Sorrento, Italy

The aim of the Cell Wall Meeting is to bring together scientists whose research deals with any aspect of plant cell walls. As in the past, the meeting is completely open and there are no invited speakers. The organisers are committed to keeping the registration costs as low as possible to encourage especially students and young research scientists to attend the meeting. We also encourage industrial participation in order to establish links between cell wall research and potential downstream applications. The program will cover all aspects of cell walls from plants, as well as from algae and fungi (structure, biosynthesis, properties, relevance to industry, etc.). The meeting will be held at the "Hilton Sorrento Palace Hotel" with its Congress Center. The Conference Hall (Sala Sirene) is a comfortable and wellequipped center with a 600-seat auditorium. Sorrento is a lovely city located in Southern Italy, 30 km south of Naples. It is a traditional sea resort of about 20,000 inhabitants at the tip of the Sorrentine Peninsula. Contact: Prof. Felice Cervone, University of Rome "La Sapienza", Dipartimento di Biologia Vegetale, P.le Aldo Moro, 5, 00185 Rome, Phone +(39) 06 49912517, Fax +(39) 06 49912446, e-mail: 2004.cellwall@uniroma1.it

Assistant Professor

The Department of Biological Sciences for The University of North Texas (www.biol.unt.edu) invites applications for a tenure track position in biochemistry beginning September 2003. Successful candidates will be expected to contribute to a strong research program and participate in instruction at the undergraduate and graduate levels. We are especially interested in candidates having expertise in eukaryotic signal transduction, although candidates with expertise in other areas will be seriously considered. Located in the Dallas-Fort Worth metroplex, the University of North Texas is a growing institution with an enrollment of over 30,000 students. The department is growing rapidly, and has a strong research focus. Excellent research facilities, competitive salary and generous start-up funds are available. The Department offers undergraduate and graduate (M.S./Ph.D.) degrees in biology, biochemistry, molecular biology, and environmental sciences. Submit curriculum vitae, names of three references, reprints, and statement of research goals to: Dr. Rebecca Dickstein, Biochemistry Search Committee, Department of Biological Sciences, P.O. Box 305220, University of North Texas, Denton, TX 76203-5220. Review of applications will begin on November 15, 2002, and continue until a suitable candidate is found. The University of North Texas is an Equal Opportunity/Affirmative Action Institution committed to diversity in its employment and educational programs, thereby creating a welcoming environment for everyone.

Postdoctoral Fellowship

Postdoctoral Fellowship in plant molecular biology is available at the University of Pretoria. The project concerns the improvement of maize for fungal resistance in a consortium with international partners and is funded by the European Union (see http://www.up.ac.za/academic/ botany/safemaiz.html). The research will involve design and development of innovative approaches in plant biochemistry and molecular analysis of transgenic plants. Candidates should have a Ph.D. in molecular biology or a related discipline, with experience in state-of-the-art plant transformation and molecular techniques. Demonstrated laboratory expertise through recent publications in quality international journals and a high level of computer literacy are essential. This is an opportunity to join a dynamic and well-equipped laboratory within the stimulating environment of the Botany Department, Forestry and Agricultural Biotechnology Institute (FABI) in the Faculty of Natural and Agricultural Sciences at the University of Pretoria (see http://www.up.ac.za/academic/botany/ berger.html). The remuneration is highly competitive, since it is a contract position funded by the European Union. Pretoria is an attractive destination for those interested in experiencing life in South Africa. It is the Capital City, is host to most Embassies and is well known for the seasonal displays of Jacaranda Trees. Pretoria is on the doorstep of the bushveld game parks, home of the Big Five (http://www.southafrica.net). The weather is good all year round and most days are sunny and warm. The position is for two years and can be filled immediately (1 November 2002). The closing date for applications is November 15, 2002, although the position will remain open until a suitable candidate is found. Please apply by emailing or faxing a complete CV with contact details of three referees (including phone numbers and email addresses) to Prof. Dave Berger, Room 6-26, Agricultural Sciences Building, University of Pretoria, Pretoria, 0002, South Africa (Fax: +27-12-362 5327; Email: dberger@postino.up.ac.za). Telephone +27-12-420 4634.

Postdoctoral Positions

Postdoctoral positions are available January 2003, to join a research group investigating the arbuscular mycorrhizal symbiosis (PI: M.J.Harrison) Current efforts focus on signaling, development and regulation of the symbiosis and the mechanisms underlying phosphate and carbon transport between symbionts. Projects available include functional genomic, genetic and biochemical dissection of development and regulation of the symbiosis and mycorrhizal-specific phosphate transport. Requirements: a Ph.D. degree, expertise in molecular biology, genetics or biochemistry and a strong publication record. To apply: Send a letter summarizing research interests, a CV and names of 3 references to Boyce Thompson Institute, Tower Road, Ithaca, NY 14853, Attn: Human Resources, Job # 2002-08, or e-mail cv to Human Resources, lbp8@cornell.edu. For further information about the projects/lab, contact Maria Harrison (mjharrison@noble.org).

Faculty Positions

The Department of Biochemistry and Cellular and Molecular Biology and the Department of Microbiology within the Division of Biology at the University of Tennessee, Knoxville are currently seeking four tenure track assistant professors. Distinguished young investigators with expertise in the particular areas outlined below are especially encouraged to apply. All positions are to begin August 2003. Interested candidates should send a resume, a description of research experience and of the proposed research program, and the names of three individuals who can provide letters of reference to the indicated contact person:

Assistant Professors (2), Molecular Cell Biology: Candidates should be using modern molecular techniques to solve current problems in cell biology. Applications from individuals with research emphases in neurobiology, cell signaling, plant biology, cell division/cell cycle and nucleic acid/chromosome dynamics would be especially welcome. However, applications from outstanding individuals in all areas of cell biology will be considered. Julia Collins, Cell Biology Search Committee, BCMB Department, M407 WLS, University of Tennessee, Knoxville, TN 37996-0840. Review of applications will begin on December 1, 2002 and continue until the positions are filled. Assistant Professor, Microbial Ecology: Candidates should be using modern methods of molecular biology to answer basic questions about the interaction among microorganisms and their processes in the environment. Applications from individuals with research emphases in signal transduction, quorum sensing and cellcell communication, environmental security, engineered microbial processes, global change, biofilms, and environmental pathogens would be especially welcome, but applications from outstanding individuals in all areas of microbial ecology will be considered. Gary S. Sayler, Professor and Chair of the Microbial Ecology Search Committee, Microbiology Department, M409 WLS, University of Tennessee, Knoxville, TN 37996-0845. Review of applications will begin on November 15, 2002 and continue until the position is filled.

Assistant Professor, Cellular Microbiology. The successful candidate is expected to establish an externally funded research program on basic questions of interactions between microbes and host cells. Research emphasis might include molecular signaling, signal transduction, cytoskeletal reorganization, intracellular trafficking, cell differentiation, and cell death as influenced by the microbe. Investigators studying the relationships between pathogenic bacteria, fungi, or protozoa and animal or plant hosts are especially encouraged to apply. David Brian, Chair, Cellular Microbiologist Search Committee, Department of Microbiology, M409 Walters Life Sciences, University of Tennessee, Knoxville, TN 37996-0845. Review of applications will begin November 15 and continue until the position is filled.

The University of Tennessee is an EEO/AA/Title IX/Section 504/ADA/ADEA institution and does not discriminate on the basis of race, sex, color, religion, national origin, age, disability or veteran status in provision of educational programs and services or employment opportunities and benefits. This policy extends to employment by and admission to the University.

NEW MEMBERS

Welcome New Members

The following members joined IS-MPMI between July 1, 2002 and October 31, 2002. Please join us in welcoming them to the Society!

Bonnie S. Bertolet San Francisco State Univ, San Francisco, CA

Wen-Ling Deng Cornell Univ, Ithaca, NY

Savithramma P. Dinesh-Kumar Yale Univ, New Haven, CT

Eelco Gilijamse Rijk Zwaan BV, De Lier, , NETHERLANDS

Francisco D. Goes Da Silva Univ of California, Davis, CA

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Jagger J. W. Harvey Univ of California, Davis, CA **Cheol H. Hwang** Dankook Univ, Cheonan, Chungnam,

Julie C. Kramer PanVera Corp, Madison, WI

SOUTH KOREA

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Shirley A. Micallef Univ of Massachusetts, Boston, MA

Dan Milbourne TEAGASC, Carlow, IRELAND

Kouhei Ohnishi Kochi Univ, Nankoku, Kochi, JAPAN **Daniel M. Roberts** Univ of Tennessee, Knoxville, TN

Jen Sheen Massachusetts General Hospital, Boston, MA

Ruhang Tang Duke Univ, Durham, NC

Lesley Torrance Scottish Crop Research Inst, Dundee, UNITED KINGDOM

Srinivasa Rao Uppalapati Oklahoma State Univ, Stillwater, OK

Yang Yen South Dakota State Univ, Brookings, SD

MPMI JOURNAL ARTICLES

November 2002 Volume 15, Number 11

Research

Developmental Control of Promoter Activity Is Not Responsible for Mature Onset of *Cf-9B*-Mediated Resistance to Leaf Mold in Tomato. S. N. Panter, K. E. Hammond-Kosack, K. Harrison, J. D. G. Jones, and D. A. Jones. Pages 1099-1107. Publication no. M-2002- 0920-01R.

Genetic and Cytogenetic Mapping of *DMI1*, *DMI2*, and *DMI3* Genes of *Medicago trun*-

catula Involved in Nod Factor Transduction, Nodulation, and Mycorrhization. J.-M. Ané, J. Lévy, P. Thoquet, O. Kulikova, F. de Billy, V. Penmetsa, D.-J. Kim, F. Debellé, C. Rosenberg, D. R. Cook, T. Bisseling, T. Huguet, and J. Dénarié. Pages 1108-1118. Publication no. M-2002-0903-02R.

A Mitogen-Activated Protein Kinase Gene (*MGV1*) in *Fusarium graminearum* Is Required for Female Fertility, Heterokaryon Formation, and Plant Infection. Z. Hou, C. Xue, Y. Peng, T. Katan, H. C. Kistler, and J.-R. Xu. Pages 1119-1127. Publication no. M-2002-0910-01R.

Tissue Specific Localization of Root Infection by Fungal Pathogens: Role of Root Border Cells. U. Gunawardena and M. C. Hawes. Pages 1128-1136. Publication no. M-2002-0923-01R.

Generation of siRNAs by T-DNA Sequences Does Not Require Active Transcription or Homology to Sequences in the Plant. T. Canto, F. Cillo, and P. Palukaitis. Pages 1137-1146. Publication no. M-2002-0923-02R.

Induction of Systemic Resistance to *Botrytis cinerea* in Tomato by *Pseudomonas aeruginosa* 7NSK2: Role of Salicylic Acid, Pyochelin, and Pyocyanin. K. Audenaert, T. Pattery, P. Cornelis, and M. Höfte. Pages 1147-1156. Publication no. M-2002-0903-01R.

FUM1–A Gene Required for Fumonisin Biosynthesis But Not for Maize Ear Rot and Ear Infection by *Gibberella moniliformis* in Field Tests. A. E. Desjardins, G. P. Munkvold, R. D. Plattner, and R. H. Proctor. Pages 1157-1164. Publication no. M-2002-0826-04R.

Fungal ABC Transporters and Microbial Interactions in Natural Environments. H.-J. Schoonbeek, J. M. Raaijmakers, and M. A. De Waard. Pages 1165-1172. Publication no. M-2002-0911-01R.

Flagella-Driven Chemotaxis Towards Exudate Components Is an Important Trait for Tomato Root Colonization by *Pseuomonas fluorescens*. S. de Weert, H. Vermeiren, I. H. M. Mulders, I. Kuiper, N. Hendrickx, G. V. Bloemberg, J. Vanderleyden, R. De Mot, and B. J. J. Lugtenberg. Pages 1173-1180. Publication no. M-2002-0917-01R.



Coupling of Iron Assimilation and Pectinolysis in *Erwinia chrysanthemi* 3937. T. Franza, I. Michaud-Soret, P. Piquerel, and D. Expert. Pages 1181-1191. Publication no. M-2002-0917-02R.

October 2002 Volume 15, Number 10

Research

Ectopic Expression of *Tsi1* in Transgenic Hot Pepper Plants Enhances Host Resistance to Viral, Bacterial, and Oomycete Pathogens. R.

Shin, J. M. Park, J.-M. An, and K.-H. Paek. Pages 983-989. Publication no. M-2002-0812-02R.

Potato spindle tuber viroid Strains of Different Pathogenicity Induces and Suppresses Expression of Common and Unique Genes in Infected Tomato. A. Itaya, Y. Matsuda, R. A. Gonzales, R. S. Nelson, and B. Ding. Pages 990-999. Publication no. M-2002-0823-01R.

Apoptotic Cell Death is a Common Response to Pathogen Attack in Oats. N. Yao, S. Imai, Y. Tada, H. Nakayashiki, Y. Tosa, P. Park, and S. Mayama. Pages 1000-1007. Publication no. M-2002-0826-02R.

The Endosymbiosis-Induced Genes *ENOD40* and *CCS52a* Are Involved in Endoparasitic-Nematode Interactions in *Medicago truncatula*. B. Favery, A. Complainville, J. M. Vinardell, P. Lecomte, D. Vaubert, P. Mergaert, A. Kondorosi, E. Kondorosi, M. Crespi, and P. Abad. Pages 1008-1013. Publication no. M-2002-0829-01R.

A Gene in the *Pseudomonas syringae* pv. *tomato* Hrp Pathogenicity Island Conserved Effector Locus, *hopPtoA1*, Contributes to Efficient Formation of Bacterial Colonies in Planta and Is Duplicated Elsewhere in the Genome. J. L. Badel, A. O. Charkowski, W.-L. Deng, and A. Collmer. Pages 1014-1024. Publication no. M-2002-0828-01R.

Constitutive Activation of Jasmonate Signaling in an *Arabidopsis* Mutant Correlates with Enhanced Resistance to *Erysiphe cichoracearum*, *Psuedomonas syringae*, and *Myzus persicae*. C. Ellis, I. Karafyllidis, and J. G. Turner. Pages 1025-1030. Publication no. M-2002-0903-01R.

Isolation of Fungal Cell Wall Degrading Proteins from Barley (*Hordeum vulgare* L.) Leaves Infected with *Rhynchosporium secalis*. R. Zareie, D. L. Melanson, and P. J. Murphy. Pages 1031-1039. Publication no. M-2002-0803-01R.

Attenuation of Cf-Mediated Defense Responses at Elevated Temperatures Correlates With a Decrease in Elicitor-Binding Sites. C. F. de Jong, F. L. W. Takken, X. Cai, P. J. G. M. de Wit, and M. H. A. J. Joosten. Pages 1040-1049. Publication no. M-2002-0812-03R. Multiple Domains Within the *Cauliflower mosaic virus* Gene VI Product Interact with the Full-Length Protein. Y. Li and S. M. Leisner. Pages 1050-1057. Publication no. M-2002-0812-01R.

PopP1, a New Member of the YopJ/AvrRxv Family of Type III Effector Proteins, Acts as a Host-Specificity Factor and Modulates Aggressiveness of *Ralstonia solanacearum*. M. Lavie, E. Shillington, C. Eguiluz, N. Grimsley, and C. Boucher. Pages 1058-1068. Publication no. M-2002-0904-01R.

Functional Conservation of Wheat and Rice *Mlo* Orthologs in Defense Modulation to the Powdery Mildew Fungus. C. Elliott, F. Zhou, W. Spielmeyer, R. Panstruga, and P. Schulze-Lefert. Pages 1069-1077. Publication no. M-2002-0823-02R.

Ethylene Insensitivity Impairs Resistance to Soil-Borne Pathogens in Tobacco and *Arabidopsis thaliana*. B. P. J. Geraats, P. A. H. M. Bakker, and L. C. van Loon. Pages 1078-1085. Publication no. M-2002-0826-03R.

Host-Dependent Requirement for the *Potato leafroll virus* 17-kDa Protein in Virus Movement. L. Lee, P. Palukaitis, and S. M. Gray. Pages 1086-1094. Publication no. M-2002-0826-01R.

September 2002 Volume 15, Number 9

Technical Advance

Rapid Colorimetric Quantification of Lipo-chitooligosaccharides from *Mesorbizobium loti and Sinorbizobium meliloti.* J. Goedhart, J.-J. Bono, and T. W. J. Gadella, Jr. Pages 859-865. Publication no. M-2002-0708-01O.

Review

Engineering Bacterial Competitiveness and Persistence in the Phytosphere. M. A. Savka, Y. Dessaux, P. Oger, and S. Rossbach. Pages 866-874. Publication no. M-2002-0729-02O.

Research

Synergistic Effect of Deoxyanthocyanins from Symbiotic Fern *Azolla* species on *brmA* Gene Induction in the Cyanobacterium *Nostoc punctiforme*. M. F. Cohen, Y. Sakihama, Y. C. Takagi, T. Ichiba, and H. Yamasaki. Pages 875-882. Publication no. M-2002-0708-02R.

A Decarboxylase Encoded at the *Cochliobolus heterostrophus* Translocation-Associated *Tox1B* Locus Is Required for Polyketide (T-Toxin) Biosynthesis and High Virulence on T-Cytoplasm Maize. M. S. Rose, S.-H. Yun, T. Asvarak, S.-W. Lu, O. C. Yoder, and B. G. Turgeon. Pages 883-893. Publication no. M-2002-0703-01R.

Infection and Colonization of Rice Seedlings by the Plant Growth-Promoting Bacterium *Herbaspirillum seropedicae* Z67. E. K. James, P. Gyaneshwar, N. Mathan, W. L. Barraquio, P. M. Reddy, P. P. M. Iannetta, F. L. Olivares, and J. K. Ladha. Pages 894-906. Publication no. M-2002-0708-03R.

Characterization and Evolutionary Analysis of a Large Polygalacturonase Gene Family in the Oomycete Plant Pathogen *Phytophthora cinnamomi*. A. Götesson, J. S. Marshall, D. A. Jones, and A. R. Hardham. Pages 907-921. Pubication no. M-2002-0724-01R.

Glycine-Rich Proteins Encoded by a Nodule-Specific Gene Family Are Implicated in Different Stages of Symbiotic Nodule Development in *Medicago* Spp. Z. Kevei, J. M. Vinardell, G. B. Kiss, A. Kondorosi, and E. Kondorosi. Pages 922-931. Publication no. M-2002-0729-01R

The Indolic Coumpound Hypaphorine Produced by Ectomycorrhizal Fungus Interferes with Auxin Action and Evokes Early Responses in Nonhost *Arabidopsis thaliana*. D. Reboutier, M. Bianchi, M. Brault, C. Roux, A. Dauphin, J.-P. Rona, V. Legué, F. Lapeyrie, and F. Bouteau. Pages 932-938. Publication no. M-2002-0625-02R.

Phospholipase D in *Phytophthora infestans* and Its Role in Zoospore Encystment. M. Latijnhouwers, T. Munnik, and F. Govers. Page 939-946. Publication no. M-2002-0722-02R.

Differential Virulence by Strains of *Cucumber mosaic virus* Is Mediated by the *2b* Gene. B.-J. Shi, P. Palukaitis, and R. H. Symons. Pages 947-955. Publication no. M-2002-0722-01R.

The *rolB*-Like Part of the *Agrobacterium rhizogenes orf8* Gene Inhibits Sucrose Export in Tobacco. M. Umber, L. Voll, A. Weber, P. Michler, and L. Otten. Pages 956-962. Publication no. M-2002-0723-01R.

Characterization of Early, Chitin-Induced Gene Expression in *Arabidopsis*. B. Zhang, K. Ramonell, S. Somerville, and G. Stacey. Pages 963-970. Publication no. M-2002-0725-01R.

Regulation of *Erwinia carotovora hrpL*_{ECC} (*sigma-L*_{ECC}), Which Encodes an Extracytoplasmic Function (ECF) Subfamily of Sigma Factor Required for Expression of the HRP Regulon. A. Chatterjee, Y. Cui, and A. K. Chatterjee. Pages 971-980. Publication no. M-2002-0731-01R.

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fungus–plant interactions Jim Kronstad Biotechnology Laboratory University of British Columbia 237-6174 University Blvd. Vancouver, B.C., Canada V6T 1Z3 Phone: +1.604.822.4732

Fax: +1.604.822.6097 E-mail: kronstad@interchange.ubc.ca

plant response to pathogens Jane Glazebrook Torrey Mesa Research Institute 3115 Merryfield Row San Diego, CA 92121 U.S.A. Phone: +1.858.812.1075 Fax: +1.858.812.1105 E-mail: jane.glazebrook@syngenta.com

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bacterial pathogenesis Christian Boucher Laboratoire de Biologie Moléculaire des Interactions Plantes Microorganismes, CNRS-INRA Chemin de Borde Rouge, BP. 27 31326 Castanet tolosan Cedex, France Phone: +33 5 61 28 54 16 Fax: +33 5 61 28 50 61 E-mail: boucher@toulouse.inra.fr

plant–bacterial symbioses Jens Stougaard Lab. of Gene Expression, Dept. of Mol. and Struct. Biol. University of Aarhus Gustav Wieds Vej 10 DK-8000 Aarhus C, Denmark Phone: +45 8 9425011 Fax: +45 8 6201222 E-mail: stougaard@mbio.aau.dk

bacterial-plant symbioses Michael Udvardi Max Planck Institute of Molecular Plant Physiology Am Mühlenberg 1 14476 Golm, Germany Phone: +49 331 567 8149 Fax: +49 331 567 8250 E-mail: udvardi@mpimp-golm.mpg.de virus-plant interactions Jim Schoelz University of Missouri Department of Plant Microbiology and Pathology Columbia, MO 65211 U.S.A. Phone: +1.573.882.1185 Fax:+1.573.882.0588 E-mail: schoelzj@missouri.edu

molecular microbial ecology Dieter Haas Laboratoire de Biologie Microbienne Université de Lausanne CH-1015 Lausanne, Switzerland Phone: +41 21 692 56 31 Fax: +41 21 692 56 35 E-mail: dieter.haas@lbm.unil.ch

Department of Nematology University of California One Shields Avenue Davis, CA 95616 U.S.A Phone: +1.530.752.3502 Fax: +1.530.752.5809 E-mail: vmwilliamson@ucdavis.edu mycorrhizal interactions Maria J. Harrison Plant Biology Division Samuel Roberts Noble Foundation 2510 Sam Noble Parkway Ardmore, OK 73402 U.S.A. Phone: +1.580.224.6670 Fax: +1.580.224.6692 E-mail: mjharrison@noble.org

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Francine Govers Laboratory of Phytopathology Wageningen University Binnenhaven 5 6709 PD Wageningen, The Netherlands Phone: +31 317 483 138 Fax: +31 317 483 412 E-mail: francine.govers@ fyto.dpw.wag-ur.nl

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8

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