

IS-MPMI REPORTER

International Society for Molecular
Plant-Microbe Interactions

- April 2000 -

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MOLECULAR PLANT-MICROBE INTERACTION UPDATE

Jan E. Leach, Editor-in-Chief



Molecular Plant-Microbe Interactions (MPMI), our official Society journal, is getting faster and better! Our average time from receipt of articles to publication was 178 days in 1999 (down 27 days from 1998) and the average time to publication after final acceptance for 1999 remained stable at 85 days. The appearance of the journal has been enhanced by the increase in the number of color pages published (averaging about 8 per issue). Last, but not least, the ISI 1998 impact factor of the journal has increased from 3.27 to 3.45. The impact factor is a measure of the frequency with which the "average article" in a journal has been cited in a particular year, and is a measure of the relative importance of the journal.

Other changes and additions to the journal include: New Senior Editor position in Mycorrhizal Interactions.

Dr. Maria J. Harrison, Noble Foundation, Oklahoma, U.S., joined the editorial board in November 1999 to cover manuscripts dealing with mycorrhizal interactions. Maria received her Ph.D. in Biochemistry and Applied Molecular Biology from the University of Manchester, Institute of Science and Technology in 1988. From 1988 to 1990 she was a post-doctoral fellow in Dr. Richard Dixon's lab in the Plant Biology Division at The Samuel Roberts Noble Foundation where she worked on transcription factors responsible for the regulation of a pathogen-inducible chalcone synthase gene in *Phaseolus vulgaris*.



In the latter part of 1990, she became a group leader and subsequently initiated research using a model legume, *Medicago truncatula*, for molecular and genetic investigations of the arbuscular mycorrhizal (AM) symbiosis. She is currently an associate scientist in the Plant Biology Division at the Noble Foundation and also holds adjunct positions in the Biology Department at Texas A&M University and in the Biochemistry Department at Oklahoma State

University. Her research interests include mechanisms underlying development and functioning of the AM symbiosis and phosphate perception, signaling and transport in plants. She is a member of the editorial boards of *Mycorrhiza* and *New Phytologist* and served previously as an associate editor for *MPMI*.

Online enhancements.

We offer authors low-cost options for enhancements in papers published in *MPMI Online*. For example, for a low price, authors can publish a black and white figure in the paper copy of *MPMI* and a color version of the exact same figure in *MPMI Online*. Links to video clips, DNA or protein sequence databases or 3-D structures of proteins are examples of some of the features you can include in online papers. *MPMI Online* offers many possibilities — we will consider any reasonable suggestions you might have for enhancing your manuscript! See the article "*MPMI Offers Online Enhancements*" in this issue of *IS-MPMI Reporter*.

New for 2000:

- E-mail notification of publication to online subscribers, with links to the table of contents.
- By May 2000, subscribers to the online version of *MPMI* will receive e-mail notification the day the issue is published online.
- Online subscriptions for libraries will be available by the end of the year.

These and other improvements are due to the efforts of excellent senior and associate editorial boards, the APS Press staff, and the many reviewers of manuscripts. Comments and suggestions to improve *MPMI* further are always welcome; these can be sent directly to me jeleach@ksu.edu or to any Senior Editor.

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MPMI OFFERS ONLINE ENHANCEMENTS

The online version of *MPMI*, which has been available since 1997, has several useful features. In addition to browsing the journal, you can search by keyword or author for all years available online. *MPMI Online* also offers enhancements for manuscripts published online. An article containing one or more enhancements is identified by the e-Xtra logo near its title, both in print and online. Here are the currently available online enhancements and their costs:

Figures. To save money, authors can publish figures in color online but in black and white in the print copy of the journal. The cost for online color if the print version is black and white is \$20 per figure.

Links. External links to *public* databases and other *official* sites on the web, such as sequence databases, can be included in articles. Authors who cite accession numbers for GenBank sequences, for example, can have these linked directly to GenBank. Authors should submit links with their articles for review. Links to personal web pages are not available, as these frequently change. URLs must be complete, commencing with <http://>. Up to five links will be provided free of charge to authors; any additional links will be charged at \$5 per link.

Supplemental materials. Supplemental materials that enhance the published manuscript

can be provided for inclusion in the online journals. Future possibilities for these materials may include interactive models, tables, images, movies, animations, or other supplements. At the present time *MPMI* will accept supplemental material in the following formats: MS Word, WordPerfect, MS Excel, Lotus 1-2-3, and .jpeg or .gif images. These supplemental materials will be reviewed by the editorial board, should follow journal style, and need to be provided in a format that will require no editing or modification by the journal staff. Submissions must also include a short description of the item, to be appended to the online abstract. Because supplemental materials will not be included in either the print version of the journals or on the year-end CD-ROM, they cannot be referred to in the text of the article. Cost for supplements is \$20 per item.

The *MPMI* editorial board and APS Press will continue to explore additional options that will enhance the value of the online journal. Comments and suggestions for further enhancements should be directed to the editor-in-chief. Further information about these enhancements and instructions for their preparation can be found at <http://www.scisoc.org/journals/extra/>.

Thank You.

After more than five years as Editor of the *IS-MPMI Reporter*, Sally Leong has "retired" from the position to focus on her role as organizer of the 2001 IS-MPMI Meeting in Madison, Wisconsin. In 1995 Sally and Co-Editor Ulla Bonas were fundamental in getting the *IS-MPMI Reporter* off the ground. As such, we owe them both our gratitude and appreciation. A special thank you to Sally who, for the past three years, has acted as sole Editor of the *Reporter* and has given many hours of time to its publication. On behalf of us all, thank you both for your substantial service to IS-MPMI!

Jan Leach
IS-MPMI President

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NEW SENIOR EDITOR FOR IS-MPMI REPORTER



Jonathan D. Walton received his MS degree in plant pathology from Cornell University in 1978 and his PhD in biological sciences from Stanford University in 1982. He joined the Department of Energy-Plant Research Laboratory at Michigan State University in 1987, where he is now professor of botany and plant pathology. His current research interests are fungal host-selective toxins, the role of cell wall degrading enzymes in pathogenesis, and the functional genomics of hemicellulose biosynthesis in maize. His research is funded by the Department of Energy, the National Science Foundation, and the U.S. Department of Agriculture. He teaches courses in introductory biology and plant/microbe interactions. He

has previously served the IS-MPMI as an associate editor (1992-1995) and senior editor for Fungus/Plant Interactions (1995-1998) of *MPMI*.

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MEETINGS/EVENTS

The Canadian Phytopathological Society and the Pacific Division of the American Phytopathological Society Joint Meeting.

June 18-21, 2000, Victoria, British Columbia, Canada

Contact: Conference Management, Division of Continuing Studies,

University of Victoria, PO Box 3030, Victoria, B.C. V8W 3N6

Website: http://www.uvcs.uvic.ca/conf/cps_aps/



6th International Congress of Plant Molecular Biology

June 18-24, 2000, Quebec, Canada

Website: <http://www.ispmb-2000.org>

Molecular Biology of Model Legumes

June 24-28, 2000, John Innes Centre, Norwich, U.K.

The meeting will cover recent advances in the Molecular Biology of Model and Crop legumes with special emphasis on *Lotus japonicus*. The scientific program includes: Development of molecular and genetic resources; functional genomics; genetics and comparative mapping; map-based cloning programs; root nodule development; genes involved in: arbuscular mycorrhiza, root nodule symbiosis, leaf/flower/seed development, nitrogen/carbon metabolism. To receive a first circular, send an e-mail message "circular" to legume@uea.ac.uk

17th North American Conference on Symbiotic Nitrogen Fixation

July 23-28, 2000, Laval University, Québec, Canada

For more information contact: Hani Antoun, RSVS Pavillon, Charles-Eugène Marchand Université Laval, Québec Canada G1K 7P4. Telephone: 418.656.2131, Fax: 418.656.7176, E-mail: antoun@rsvs.ulaval.ca

4th European Nitrogen Fixation Conference

September 16-20, 2000, Sevilla, Spain

Contact: Profs. A.J. Palomares and J. Olivares Dept. Microbiología, Facultad de Farmacia, Universidad de Sevilla, 41071 Sevilla, Spain, Fax: +34.954556924, E-mail: 4thenfc@cica.es

Website: <http://www.eez.csic.es/4thenfc/>

4th International Rice Genetics Symposium

October 22-27, 2000, IRRI, Los Banos, The Phillippines

Contact Dr. G.S. Khush at e-mail: g.khush@cgiar.org

International Symposium on Durable Disease Resistance:

Key to Sustainable Agriculture

November 28 - December 1, 2000, Wageningen, The Netherlands

Contact: Dr. J.E. Parlevliet, Plant Breeding, Wageningen UR, PO Box 386, NL 6700 AJ

Wageningen, The Netherlands Fax: +31.317 483457, E-mail: jan.parlevliet@users.pv.wau.nl

Website: <http://www.spg.wau.nl/pv/symposium.htm>

2001

Fungal Metabolites: The Good, Bad, and Deadly

April 22-27, 2001, University of Wales, Swansea, United Kingdom

Preliminary sessions include: "Fungi as a Source of Novel Bioactive Compounds," "Development of Tools and Methods to Study Metabolites," "Exploitation of Bioactive Metabolites,"

"Mycotoxins," "Risk Assessment of Fungal Biological Control Agents," poster session, and network discussions (an opportunity to identify partners for future collaborative research).

Contact: Dr. Tariq M. Butt, University of Wales Swansea, School of Biological Sciences, Singleton Park, SWANSEA, SA2 8PP UK Phone: +44.792 295374 Fax: +44.1792 295447 E-

mail: t.butt@swansea.ac.uk

Third International Conference on Mycorrhizas (ICOM3)

July 8-13, 2001, Adelaide Convention Centre, Adelaide, Australia

Contact: Professor Sally Smith, Department of Soil and Water, Waite Campus, University of Adelaide, PMB 1, Glen Osmond, South Australia 5064. Phone: +61.08 8303 7351 Fax: +61.08 8383 6511 E-mail: sally.smith@adelaide.edu.au Website:

www.waite.adelaide.edu.au/soilscience/3icom.html

IS-MPMI Meeting

July 10-15, 2001, Madison, Wisconsin USA

The 2003 meeting will be in St. Petersburg, Russia

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EMPLOYMENT

Postdoctoral Fellow

Postdoctoral fellow position available to work on studies of potato virus X cell-to-cell movement. Studies will focus on the role of viral protein-protein interactions required to propel viral RNAs through plasmodesmata, and to study viral protein interactions with host cellular components. Ph.D. in biological sciences required. Experience in molecular cloning and/or cell biology preferred. Please send curriculum vitae and name of three references to: Dr. Jeanmarie Verchot, Department of Entomology and Plant Pathology, Oklahoma State University, 127 NRC, Stillwater, OK 74078-3033. Fax: 405.744.6039; E-mail: verchot@okstate.edu Phone: 405.744.7895.

Postdoctoral Position in Cereal Genomics

A three year position is available beginning January/February 2000 at the Institute of Plant Biology, University of Zurich, for a project on transposon-induced mutagenesis in a diploid Triticeae species and the development of molecular markers in wheat. Candidates should have a strong background in plant molecular biology and tissue culture, preferentially in cereals. Formal

applications including a CV, a statement of research interests and two letters of reference should be sent to: Prof. Beat Keller, Institute of Plant Biology, Zollikerstr. 107, 8008 Zurich, Switzerland. The position will remain open until a suitable candidate is found. Informal inquiries may be directed to Dr. Ch. Ringli, E-mail: chringli@botinst.unizh.ch.



Three Postdoctoral Positions Available

Three two-year postdoctoral positions will be available in September 2000 to study the symbiotic program of the model legume *Medicago truncatula* by genetic, molecular and functional genomics approaches. These projects will be carried out at the Toulouse INRA-CNRS LBM RPM laboratory, website: <http://www.toulouse.inra.fr/1bmrpm/1bmrpm.htm>, in the frame of an EC-funded *M. truncatula* network. This laboratory hosts five interactive teams working on *M. truncatula* using interdisciplinary approaches. Toulouse has recently been chosen as one of the five sites in France, termed Genopoles, that are dedicated to the development of genomics. Genomics platforms are being set up next to our laboratory, which will therefore benefit from a favorable environment for the proposed projects.

The first project (Project leaders: Jean Dénarié and Charles Rosenberg) is based upon a genetic approach to explore the molecular and genetic control of Nod factor perception and transduction. It consists in the positional cloning of an early symbiotic gene of *M. truncatula* involved in both nodule and mycorrhizae formation and controlling an early step in the Nod factor transduction cascade. Various tools are available (BAC genome library, efficient plant transformation system), and the lab is experienced in this type of project, with several other symbiotic genes currently being cloned.

The second project (Project leader: Thierry Huguet) deals with structural genomics of *M. truncatula*, with identification of anchor markers, genetic mapping of cDNAs (especially those associated with nodulation) and symbiotic mutations. A genetic map has already been constructed in our lab for *M. truncatula*.

The third project (Project leader: Pascal Gamas) consists in developing a functional genomics approach, using as a starting material our collection of about 14000 *M. truncatula* annotated ESTs from roots and symbiotic tissues. This collection will be enriched for low abundance symbiotic cDNAs by SSH (suppressive subtractive hybridization), and expression studies will be carried out on high density cDNA arrays to define and characterize the symbiotic transcriptome.

Please send a letter of application, CV, and letters of recommendation to any of the above-mentioned project leaders, Laboratoire de Biologie Moléculaire des Relations Plantes-Microorganismes CNRS-INRA, BP27, 31326, Castanet-Tolosan Cedex, France. Fax: +33.561.28.50.61 E-mail: Jean Dénarié: denarie@toulouse.inra.fr Pascal Gamas: gamas@toulouse.inra.fr Thierry Huguet: thuquet@toulouse.inra.fr Charles Rosenberg: crosen@toulouse.inra.fr.

Faculty Position: Molecular Microbial Ecologist

The Department of Plant Pathology at Ohio State University and the Ohio Agricultural Research and Development Center invite applicants for a tenure-track 100% research position at the Assistant Professor level in molecular microbial ecology. We are seeking a colleague who will use molecular techniques and/or functional genomics to examine fundamental questions in microbial ecology and develop a research program aimed at understanding soil microbial community structure and function relative to induced defense responses and other mechanisms of biological control of plant diseases. The successful candidate will develop collaborations with existing interdisciplinary teams. He/she will have access to state of the art service facilities at the OARDC Molecular and Cellular Imaging Center. A curriculum vitae, copies of academic transcripts and selected publications, a statement of research interests, and three letters of recommendation should be sent to: Dr. S. Kamoun, Dept. of Plant Pathology, OSU-OARDC, Wooster, OH 44691-4096 (<http://www.ag.ohio-state.edu/~plantdoc/mme.html>). The Ohio State University is an Equal Opportunity, Affirmative Action Employer. Women, minorities, Vietnam-era veterans, disabled veterans and individuals with disabilities are encouraged to apply.

Post-doctoral Position in Plant-Microbe Interactions/Plant Molecular Biology

Several post-doctoral positions are currently available to study the interaction of *Agrobacterium tumefaciens* with plant cells. The successful candidates will join an established group of researchers, currently funded by a NSF Plant Genomics grant, to identify *Arabidopsis* genes involved in *Agrobacterium* attachment, T-DNA transfer to the plant, nuclear targeting, and T-DNA integration into the chromosome. This investigation uses functional genomic approaches including forward and reverse genetics to identify *Arabidopsis* *rat* (resistant to *Agrobacterium* transformation) mutants, microarray and RNA differential display to identify plant genes rapidly induced or repressed upon *Agrobacterium* infection, and yeast one- and two-hybrid systems to identify *Arabidopsis* proteins that interact with *Agrobacterium* Vir proteins that are transferred to the plant. More than 40 *rat* mutants have already been isolated, and the characterization of these and additional mutants will be a major focus of the work. Candidates should have experience in plant molecular and cell biology techniques, and some experience in plant and/or microbial genetics. Salary will be commensurate with experience. Please send a c.v. and three letters of recommendation to: Dr. Stanton B. Gelvin, Department of Biological Sciences, Purdue University, West Lafayette, IN 47907-1392. Phone: 765.494.4939; Fax: 765.496.1496; E-mail: gelvin@bilbo.bio.purdue.edu. Purdue University is an Affirmative Action/Equal Opportunity employer.

Plant Geneticist

Faculty Position in Plant Genetics, Department of Biological Sciences, Purdue University. The Department of Biological Sciences, Purdue University, invites applications for a tenured position in the area of plant genetics. We are especially interested in applicants who use genetic and functional genomic approaches to investigate exciting problems in plant cell and developmental biology. We expect that the successful applicant will be hired at the level of associate or full professor, and will begin by September 2000. The successful candidate should have a Ph.D. in an appropriate discipline and significant postdoctoral experience. We seek applicants with an established record of extramural funding, outstanding research, teaching and training. The successful candidate will have access to graduate students from the Department of Biological Sciences as well as several interdisciplinary programs including Plant Biology, Genetics, and Biochemistry and Molecular Biology. The candidate will join a large group of plant biologists on the Purdue campus which has recently been supplemented by the hiring of a number of new faculty in the area of plant genomics. The Department of Biological Sciences and Purdue University maintain outstanding facilities for conducting plant research. In addition to greenhouses and environmentally-controlled chambers, the University sponsors a genomics center that conducts high through-put DNA sequencing, microarray analysis, and a reverse genetics facility to identify T-DNA insertions in *Arabidopsis* genes. There are also excellent facilities, including confocal microscopes and electron microscopes, for molecular cytology. Applicants should send a curriculum vitae, three letters of recommendation, a description of past research and teaching activities, a list of recent funding sources, and a description of proposed future research activities to: Dr. Stanton B. Gelvin, Chair, Plant Genetics Search Committee, Department of Biological Sciences, Purdue University, West Lafayette, IN 47907-1392. Review of candidates will begin February 15 and continue until the position is filled. Purdue University is an Equal Opportunity/Affirmative Action Employer.

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PEOPLE

Ekramoddoullah presents seminars in China

At the invitation of the Chinese Government, IS-MPMI member Abul Ekramoddoullah, senior research scientist with the Canadian Forest Service, Victoria Canada, visited China in early March 2000 where he gave a series of seminars on the "Molecular Aspects of Host-Pathogen Interaction of White Pine Blister Rust Pathosystem Utilizing Genomic and Proteomic Approaches." The seminars were presented at the Baptist University, Hong Kong; at the Chinese Academy of Forestry, Kunming; Beijing Forestry University, Beijing; and at the Chinese Academy of Sciences, Beijing. One of the purposes of the visit was to strengthen ongoing collaborative works in Forest Biotechnology between China and Canada.

Melcher named as first incumbent

Ulrich Melcher has been named as the first incumbent of the Robert J. Siny Professorship of Agricultural Biochemistry in the Department of Biochemistry and Molecular Biology at Oklahoma State University. The professorship recognizes efforts at involving undergraduate students in laboratory research.

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WELCOME NEW MEMBERS

January-March 2000

Carol M. Foster

Iowa State University

Papadopoulou Kalliopi

N.A.G.R.E.F.

Kelly Kincannon

Kincannon & Reed

Hyun Sook Lee

Gyeongsang Natl University

Michelle R. Rondon

Ohio State University

Ritu J. Shah

University of Missouri

Hyekyung Shim

Sung Kyun Kwan University

Mark Your Calendars!

**IS-MPMI
Meeting**



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Maria Harrison, Plant Pathology Division, Samuel Roberts Noble Foundation, P.O.Box 2180, Ardmore, OK 73402 USA

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