



ISPP

To the president of ISPP,

Prof. Richard Falloon



PSJ

Report to ISPP on activities of the Phytopathological Society of Japan (PSJ) for 2003-2008

Name of Society, The Phytopathological Society of Japan (PSJ) Established: 1917

Web of address for Society: <http://www.ppsj.org/>

Current representatives of the PSJ:

President (2008-2009): Prof. Shinji Tsuyumu (Shizuoka Univ.)

Vice President (2008-2010): Prof. Tomonori Shiraishi (Okayama Univ.)

Secretary General (2008-2009): Prof. Tohru Teraoka (Tokyo Univ. Agric. & Techn.)

General Report of PSJ 2003-2008

The PSJ was founded in 1917 to promote or spread knowledge of plant diseases and their control in Japan, and now has been grown as an international society. In 2008, our society has 2058 members including a lot of overseas members, and in addition about 250 student members. The PSJ aims at more contributive society in developing basic bioscience and maintaining the health of agricultural and non-agricultural plants. We publish the Journal of General Plant Pathology (JGPP) bimonthly and the Japanese Journal of Phytopathology quarterly. The JGPP has been cited in the Web of science by this June, and the impact factor will be noticed by 2011. Now, we have projects to establish the international friendship programs between our PSJ and the related foreign societies to promote the international collaboration. In this spring annual meeting, we have concluded the memorandum of agreement with Vietnamese Society of Molecular Plant Pathology to enhance the cordial relationships between us. And now we are planning to establish the similar friendship agreement with Korea Society of Plant Pathology in the near future.

I. Report for PSJ Meetings 2003-2008

Regularly we hold the annual meeting in spring and the local division meetings in autumn, and also sponsor the 10 workshop accordingly.

I-1. Annual Meeting (every year in spring)

2003 (Meiji University, in Tokyo, President Prof. Kojima M)

2004 (Kyushu University, in Fukuoka, President Prof. Yoneyama K)

2005 (Shizuoka University, in Shizuoka, President Prof. Doke K)

2006 (Hokkaido University, in Sapporo, President Prof. Takanami Y)
2007 (Utsunomiya University, in Utsunomiya, President Prof. Mayama S)
2008 (Shimane University, in Shimane, President Prof. Tsuyumu S)

Number of participants in Annual meeting

2003: 1069 people, 2004: 889 people, 2005: 950 people, 2006: 960 people,
2007: ca.1000 people, 2008: ca. 1000 people

I-2. Division Meeting (every year in autumn)

We have the 5 local divisions; Hokkaido Division, Tohoku Division, Kanto Division, Kansai Division, Kyushu Division

I-3. Workshop (every or biyearly):

The society covers broad areas of basic and applied plant pathology, including diagnosis of plant diseases and identification of the causative agents, mechanisms for pathogen infection and multiplication, plant-pathogen interactions, mechanisms for plant disease resistance, epidemiology on disease transmission, monitoring or assessment, chemical and biological control, development of disease-resistant plants, and related areas dealing with plant pathological disorders. Now, 10 kinds of workshops are sponsored as following; PLANT BACTERIAL PATHOGEN, PLANT DISEASE ECOLOGY, RESEARCH COMMITTEE ON FUNGICIDE RESISTANCE, PLANT VIRUS DISEASE, PLANT-MICROBE INTERACTION, SOIL-BORN DISEASE, PLANT DISEASE DIAGNOSIS, EVIDENCE-BASED CONTROL, BIOLOGICAL CONTROL, EDUCATION PROGRAM FOR PLANT PATHOLOGY. Each workshop is held in every year or biyearly. Representative programs of current workshops are shown below.

9th Plant Fungal Pathogen Workshop. Date: April 28th, 2008. Site: Kunibiki Messe (the same site held in the PSJ Meeting) Program: "Taxonomy and diagnosis of the plant pathogenic Hyphomycetes" 1. Taxonomy and identification of *Alternaria* species and its allied genera J. Nishikawa (Sakata Seed Corporation) 2. Taxonomy and diagnosis of the genus *Cercospora* sensu lato C. Nakashima (Graduate school of Bioresources, Mie University) 3. Current status of classification of the genus "*Helminthosporium*", and the methods for its isolation, identification and preservation T. Tsukiboshi (National Institute of Livestock and Grassland Science) Special topic Application of modified International Code of Botanical Nomenclature T. Aoki (National Institute of Agrobiological Sciences) Information: Koji Kageyama (Gifu University) E-mail kageyama@gifu-u.ac.jp Chiharu Nakashima (Mie University) E-mail : chiharu@bio.mie-u.ac.jp

10th PSJ Plant Disease Ecology Workshop. Date : April 29, 2008. Site : "Kunibiki Messe 601" (Shimane Prefectural Convention Center). Program: "Methodology of plant disease ecology." 1. Control of Cucumber Black Root Rot Caused by *Phomopsis sclerotioides* Y. Iwadate (Iwate Agricultural Research Center). 2. Analysis of genetic diversity and population structure of *Rhizoctonia*

fungi in paddy fields M. Arakawa (Meijo University, Faculty of Agriculture). 3. Population models of tomato yellow leaf curl virus disease and its insect vectors - theory, mathematical model, data analysis -S. Urano (Kyoto University, Center for Ecological Research).

4. General meeting. 5. What can we grasp by the spatio-temporal distribution of plant disease? T. Nakajima (National Agricultural Research Center for Kyushu Okinawa Region). 6. Observational studies for hypothesis creation in plant disease ecology, their importance and methods. K. Ishiguro (Agriculture, Forestry and Fisheries Research Council). Information: T. Nakajima (National Agricultural Research Center for Kyushu Okinawa Region) E-mail: ntakashi@affrc.go.jp

18th Symposium of Research Committee on Fungicide Resistance. Date: April 29, 2008. Place : Kunibiki Messe. Program: “Fungicide resistance in Shimane Prefecture” Toshihide Tsukamoto (Shimane Agricultural Research Center). Theme 1: Mode of action and resistance monitoring for new fungicides, 1. Assay method for fluopicolide sensitivity of several Oomycetes species and monitoring results. Yutaka Kuchii (Bayer Crop Science). 2. Resistance risk assessment for mandipropamid and other CAA fungicides Ulrich Gisi (Syngenta). 3. Mode of action, biological performance and latest monitoring results of boscalid sensitivity Gerd Stammer (BASF). Theme 2:

Occurrence of resistant strains to boscalid in *Corynespora* leaf spot caused by *Corynespora cassiicola* on cucumber in Ibaraki Prefecture. Takuya Miyamoto (Horticultural Research Institute, Ibaraki Agricultural Center). 4. Fluctuation of MBI-D-resistant populations of *Magnaporthe grisea* after withdrawal of the fungicide selection pressure. Part 1: In Tochigi Prefecture. Yasuhiro Kobayashi (Tochigi Agriculture Environment Guidance Center). Part 2: In Saga Prefecture. Junichirou Yamaguchi (Saga Agricultural Research Center). 5. Management of fungicide resistance on rice blast caused by *Magnaporthe grisea* Research Committee on Fungicide Resistance. Reference : Kazuhiro So. Osaka Business Establishment, Fertilizers and Pesticides Dept., ZEN-NOH. e-mail: sou-kazuhiro@zennoh.or.jp

9th PSJ Plant Virus Disease Workshop on “Interface between plant and fungal viruses”

Date: April 29, 2008. Place: Auditorium of the Kurashiki City Art Museum. Program: 1. Transmission and spreading of RNA silencing in plants. Masamichi Nishiguchi and A. K. M. Nazmul Haque, Ehime University (Japan). 2. Fungal RNA silencing pathways and mycovirus-mediated alteration of fungal-plant pathogenic interactions. Donald L. Nuss, University of Maryland Biotechnology Institute (USA) Chairperson: Hitoshi Nakayashiki (Kobe University). 3. Biological control of root pathogens of fruit trees using mycovirus. Naoyuki Matsumoto, Agricultural Research Center for Hokkaido Region (Japan). 4. Molecular and phylogenetic analyses of Orchid fleck virus, a rhabdo-like virus with a bipartite genome. Hideki Kondo, RIB Okayama University (Japan). Chair person: Takahide

Sasaya (National Agricultural Research Center). 5. Rice dwarf virus infecting rice and vector insect. Takumi Shimizu and Toshihiro Omura, National Agricultural Research Centre (Japan). 5. Viruses, symbiosis and mutualism. Marilyn J. Roossinck, Samuel Roberts Nobel Foundation (Japan). Chairperson: Kazusato Ohshima (Kobe University). 5. Mechanism of systemic necrosis development in Arabidopsis thaliana upon bromovirus infection” Kazuyuki Mise, Kyoto University (Japan). 6. Characterization of fungal host factors interacting with Fusarium graminearum virus (FgV)-DK21 and their potential roles in virus infection.

Kook-Hyung Kim, Seoul National University (Korea). Chairperson: Hiromitsu Moriyama (Tokyo University of Agriculture and Technology). Local Organizing Committee: Nobuhiro Suzuki (pfvi2008@server.rib.okayama-u.ac.jp)

44th PSJ Plant-Microbe Interactions Symposium -Prospects of Research on Plant-Microbe Interactions using Genome Sequence Data- . Date: August 7th - 9th, 2008. Site: Recreation Center Yamizo (Daigo, Kuji, Ibaraki 319-3552, Japan). Program: August 7th / Introduction. Current topics in molecular plant-microbe interactions Kazuya Akimitsu (Kagawa University). I. Microorganism and plant genomics 1. Microorganism genomics. 1-1. Comparative genomics of eukaryotic microorganisms: signal transduction pathways in Magnaporthe grisea vs. Aspergillus nidulans or Saccharomyces cerevisiae Marie Nishimura (National Institute of Agrobiological Sciences). 1-2. Genome-wide analysis of Xanthomonas oryzae pv. oryzae infection mechanism in rice-Identification and characterization of type III effectors- Ayako Furutani (National Institute of Agrobiological Sciences). 1-3. Advanced approach to Fusarium graminearum studies by using whole genome sequence data. Haruhisa Suga (Life Science Research Center, Gifu University). Special Lecture: Molecular genetics of symbiotic plant-microbe interactions using a model legume, Lotus japonicus. Hiroshi Kouchi (National Institute of Agrobiological Sciences). August 8th / 2. Plant genomics. 2-1. Elucidation of molecular mechanism underlying Pythium oligandrum induced disease resistance based on genomic information for Micro-Tom tomato. Shuu Hase (Tohoku University). 2-2. Molecular characterization of signaling mechanisms involved in induced resistance in rice. Hiroshi Takatsuji (National Institute of Agrobiological Sciences). 2-3. Detection and molecular cloning of a gene underlying QTL for field resistance to blast in rice. Shuichi Fukuoka (National Institute of Agrobiological Sciences). II. Particulars. 1. Bacteria. 1-1. Pathogenic diversification and distribution of Candidatus Liberibacter asiaticus according to the phylogenetic analysis based on the highly variable genomic region. Shin-ichi Miyata (National Institute of Fruit Tree Science, NARO). 1-2. Molecular mechanism of host-pathogen interaction in black rot of crucifers. Katsunori Tamura (Institute of Molecular and Cellular Biosciences, The University of Tokyo). 1-3. MAMPs in Pseudomonas syringae and plant responses. Yuki Ichinose (Okayama University). August 9th / 2. Viruses. 2-1. Elicitation mechanisms of necrosis induced upon melon necrotic spot virus infection. Tomofumi Mochizuki

(National Agricultural Research Center, NARO). 2-2. Host factors involved in tobacco mosaic virus infection. Yasuyuki Yamaji (Graduate School of Agricultural and Life Sciences, The University of Tokyo). 3. Fungi. 3-1. Molecular cloning of AVR-Pia in *Magnaporthe oryzae*. Teruo Sone (Hokkaido University). 3-2. Functional analysis of the mutualistic symbiotic interaction between *Epichloe festucae* and perennial ryegrass. Daigo Takemoto (Graduate School of Bioagricultural Sciences, Nagoya University). 3-3. RNAi as a tool for functional genomics in fungi. Hitoshi Nakayashiki (Graduate School of Agricultural Science, Kobe University). Information: Hideo Ishii; hideo@niaes.affrc.go.jp (National Institute for Agro-Environmental Sciences).

24th PSJ Soil-Born Disease Symposium Date: September 10th -12th ,2008. Site: Faculty of Agriculture, Kochi University. Program: September 10th / 1. The significance of plant disease diagnosis, and preparation for the fosterage of “plant doctor” and the collaboration. H. Horie (University of Tokyo). 2. *Burkholderia cepacia* complex: Distribution and diversity in Agro- environment. K. Tsuchiya (Kyushu University). 3. Diversity and evolution of pathogenicity in *Fusarium oxysporum*. T. Arie (Tokyo University of Agriculture and Technology). 4. Pathogenicity of *Fusarium oxysporum*. T. Tsuge (Nagoya University). September 11th / Session 2. Soil-born diseases and soil microorganisms. 1. Decomposition characteristics of organic materials by microbes in compost and in soil. Fujiwara (Kanagawa Agricultural Technology Center). 2. Impacts of various types of soil disinfection methods on soil physico-chemical and microbial properties. S. Tanaka (Kochi University). 3. Biocontrol mechanisms of plant growth promoting fungi. M. Hyakumachi (Gifu University). 4. Control of soil-borne plant diseases by biological soil disinfestations. T. Takehara (National Agricultural Research Center for Western Region). Session 3. Excursion . September 12th / Session 4. Soil-borne diseases in west Japan. 1. Bacterial wilt of solanaceae vegetables in Kochi prefecture and its control. K. Yano (Kochi Agricultural Research Center). 2. Development of DNA markers for resistance to bacterial wilt disease caused by *Ralstonia*. T. Sugita (Miyazaki Agricultural Research Institute). 3. Occurrence and control of soil borne diseases of the local vegetable in Tottori prefecture. I. Sako (Tottori Daisen Agricultural Extension Service Station). 4. Attempt to clarify the disease cycle of bacterial canker on summer-autumn tomato growing in a sideless plastic house in Okayama prefecture. K. Tanina (Okayama Prefectural General Agriculture Center).

2nd PSJ Plant Disease Diagnosis Symposium. Date: September 17, 2008. Venue]: Faculty of Agriculture, Kobe University. Program: (1) Keynote lecture. 1. A perspective on plant disease diagnosis. Hideo NASU (JA Zennoh Okayama). (2) Classification and diagnosis. 1. Classification and identification of plant viruses. Satoshi OHKI (Osaka Prefecture University). 2. Diagnosis of *Pythium* diseases. Motoaki TOJO (Osaka Prefecture University). (3) Special lecture - How to differentiate infectious diseases from physiological disorders - Effect of

fertilization on plant disease occurrence. Kazuhiko WATANABE (Tokyo University of Agriculture). (4) Development of new techniques for diagnosis. 1. Quantitative detection of *Verticillium* spp. in soil using real time PCR. Makoto FUJIMURA (Toyo University). 2. Detection of the causal agent of Ceratocystis canker in fig trees using PCR. Takanori MIYOSHI, Shin-ichi SHIMIZU (Ehime Research Institute of Agriculture, Forestry and Fisheries). 3. Detection of the causal agent of anthracnose in strawberry using selective media and PCR Yoshihiko HIRAYAMA (Nara Prefectural Agricultural Experiment Station). (5) How to deal with diseases that are difficult to diagnose. 1. Examples in Mie prefecture. Hirofumi SUZUKI (Mie Prefecture Agricultural Research Institute). 2. Examples in Hyogo prefecture. Takeshi KANTO (Hyogo Prefectural Technology Center for Agriculture, Forestry, Fisheries). 3. Examples in Osaka prefecture. Kiyotsugu OKADA (Research Institute of Environment, Agriculture and Fisheries, Osaka Prefectural Government) (6) Panel discussion. Chairman: Masataka AINO (Hyogo Prefectural Technology Center for Agriculture, Forestry, Fisheries).

II. Report for International Activity 2003-2008

II-1. Joint-meeting in Japan sponsored by the PSJ

Plant Immunity-signalings to acquired resistance, Dr. Ohashi Y (Head, NIAS, Japan), March 2004, in Tsukuba

1st International Conference on Bacterial Blight of Rice, Dr. Kaku H (Head, NIAS, Japan), March 2004, in Tsukuba. (<http://www.nias.affrc.go.jp/ICBB/>)

140 people, who are engaged in the field of Bacterial Blight of Rice, participated from all over the world; USA, the Philippines, China, France, Belgium, India, Thailand, etc. Topics: I. Genomics of *Xanthomonas oryzae* pv. *oryzae*(Xoo) and rice. II. Molecular Aspects of Rice-Xoo Interactions. III. Plant Physiology and Ultrastructure of Rice-Xoo Interaction. IV. Race Differential Systems and Diagnosis. V. Genetics and Breeding for Resistance and Its Strategy. VI. Ecology and Control. Organizing Committee for 1st International Conference on Bacterial Blight of Rice; H. Kaku (Head, NIAS, Japan), T. W. Mew (IRRI, Philippines), J. Leach (Kansas State University, USA), P. Ronald (University of California-Davis, USA), J. S. Wang (Nanjing Agricultural University, China), S. Tsuyumu (Shizuoka University, Japan), R. Sonti (Center for Cellular and Molecular Biology, India), C. Vera Cruz (IRRI, Philippines).

International Potato Scab Symposium, Prof. Naito S (Head, Hokkaido University, Japan), September 2004, in Sapporo
(<http://www.potatonews.jp/NewFiles/IPSS2004/IPSSENGLISH.html>)

Worldwide efforts to investigate and control Common Scab were the central theme of the International Potato Scab Symposium 2004 held at Hokkaido University, Sapporo. Researchers from overseas joined Japanese colleagues to outline the current situation in different countries and their plans for future work in this field, and the symposium concluded with words of hope from Dr. Shigeo Naito, the chairman of the organizing committee, who said he hoped that the symposium's success would lead to other similar meetings.

The 1st International Mycovirus Workshop, Prof. Suzuki N (Head, Okayama University, Japan), April 2008, in Kurashiki. Prof. Marilyn J Roossinck (USA), Prof. Donald L. Nuss (USA) and Prof. Kook-Hyung Kim (Korea) were invited as guest speaker or chairperson. There were 14 talks for mycoviruses.
(<http://www.rib.okayama-u.ac.jp/pmi/2003/html/1st%20IMW.html>)

Congress/ Workshop Co-sponsored by the PSJ

The 11th IUPAC international Congress of Pesticide Chemistry,

August 2004, in Kobe. Chairman of the Congress: Prof. Ohkawa

In 1982, Japan first played host to the 5th IUPAC International Congress of Pesticide Chemistry, in Kyoto. In 2006, the Congress returns to Japan, and the beautiful, cosmopolitan port city of Kobe welcomes experts in the field of pesticides from all over the world. The 11th IUPACKobe Congress will provide all participants with a unique chance to discuss not only new developments in chemistry or related technologies but also public health issues such as vector control or environmental science matter and other current topics. Over 20 scientific sessions, more than 100 lectures will be performed, introducing the most up-to-date study results. Poster session and the selected poster workshops are no doubt one of the highlights of the program in this year's Congress.

II-2. Joint-meeting in abroad

4th Pan Pacific Conference on Pesticide Science

June 2008, in Honolulu, Hawaii, USA

100th APS Centennial Meeting

July 2008, in Minneapolis, MN, USA

9th International Congress of Plant Pathology

August 2008, in Torino, Italy

4th International Symposium on Rhizoctonia Workshop

August 2008, in Berlin, Germany

3rd International Phytophthora and Pythium Workshop

August 2008, in Turin, Italy

10th International Fusarium Workshop and Fusarium Genomics Workshop

July 2008, in Sardinia, Italy

7th Symposium of the International Working Group on Plant Viruses with Fungal Vectors. August- September, 2008, in Quedlinburg, Germany

II-3. Participation of our committee members

20th memorial meeting of Korean Society of Plant Pathology

October 2004, in Pyeongchang, Korea

2th Asian Association of Societies of Plant Pathology: AASPP

June 2005, in Singapore, Singapore

3rd Asian conference on Plant Pathology (Gadjah Mada University)

August 2007, in Yogyakarta, Indonesia

4th Asian Association of Society for Plant Pathology (AASPP)

Prof. Wong (Head, National University of Singapore)

August 2007 in Singapore, Singapore

* Prof. Tsuyumu S is elected as next vice president of AASPP.