

**PP** 2023

PROMOTING WORLD-WIDE PLANT HEALTH AND FOOD SECURITY

INTERNATIONAL SOCIETY FOR PLANT PATHOLOGY

# **ISPP NEWSLETTER**

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Editor: Daniel Hüberli (email) Join the ISPP mail list

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INTERNATIONAL SOCIETY FOR PLANT PATHOLOGY (ISPP) www.isppweb.org

## WELCOME MESSAGE

The International Congress of Plant Pathology in Lyon is only a few weeks away (August 20-25, 2023)! Bienvenue à tous! ICPP2023 will bring together plant pathologists and plant health researchers from around the world to discuss their latest research as well as current and future issues facing plant health experts.

We are being hosted by the Société Française de Phytopathologie (SFP, French Phytopathology Society), who has worked in an international planning committee to develop a program around the timely and challenging Congress theme, "Plant Pathology in a One Health World". The ICPP2023 scientific program and satellite meetings are rich in talks, posters, and opportunities for discussions that consider the integral links of plant health with human, animal and environmental health.

Lyon is a beautiful city that is rich in history. Did you know that Lyon was the silk-manufacturing capital of Europe in the 17th century? And that the Lumière brothers, pioneers of cinema and color photography, were born in Lyon? Very importantly, Lyon is known for its cuisine! So much to enjoy!

I look forward to welcoming you to Lyon in person soon. Jouir!

Jan E. Leach Colorado State University, USA President, ISPP



## Key Achievements of ISPP 2018-2023

The International Society of Plant Pathology (ISPP) promotes the worldwide development of plant pathology, and the dissemination of knowledge about plant diseases and plant health management. The ambitious work plan for the ISPP in 2018-2023 reflected that overarching goal, although progress was somewhat tempered by the COVID-19 pandemic. Key achievements for 2018-2023 were:

#### • Congresses:

- **ICPP2023:** The 12<sup>th</sup> International Congress of Plant Pathology (ICPP), organised by the French Society of Plant Pathology (SFP), and the ISPP Council are being convened in Lyon, France from 20-25 August 2023. The theme of the 12<sup>th</sup> Congress is Plant Pathology in a One Health World, thus underlining the role of plant pathology in human, animal and environmental health and well-being. It is anticipated that more than 2200 delegates will attend the event. At the Congress, the SFP is also celebrating 50 years since its foundation.
- ICPP2028: The 13<sup>th</sup> ICPP will be convened at the Gold Coast, Queensland, Australia from 18-26 August 2028 under the theme The Human Face of Plant Pathology. The congress will be organised by the Australasian Plant Pathology Society (APPS).
- ICPP Frequency: Commencing in 2032, the ISPP will move to a four-yearly cycle for the ICPP.
- Membership:
  - **Members:** Sixty-three national and regional societies for Plant Pathology or Plant Protection are affiliated with ISPP, representing approximately 26,000 plant pathologists. In addition, there are 159 individual subscribing members and 12 Life Members to ISPP.
  - **Membership fees:** ISPP streamlined membership fee payment procedures for Associated Societies, offer the option of a 10% discount for membership fees paid in three or more years tranches. In 2022-2023 there were 21 financial member Societies out of c. 63 Associated Societies.

#### • Leadership:

- Representation: The ISPP Council represents associated societies, and currently consists of 114 Councillors. In 2023, ISPP Council approved a proposal to increase Councillor numbers representing Societies with 101 to 500 members by one per society above current representations. This will increase representation on Council and provide scope to improve participation by underrepresented groups on Council.
- **ISPP Executive Elections:** During 2023, Council approved a change to the ISPP Rule concerning nominations for the Executive to specify that the Nomination Committee selects <u>one or two candidates</u> (rather than two) for each office (President, Vice-President, Secretary-General and Treasurer).

#### • Other Initiatives:

- World Directory of Plant Pathologists. This searchable database of plant pathologists around the world is made possible through support from the Fran Fisher Trust. The process to participate in the directory has been streamlined, requiring only basic details (in line with privacy provisions) requiring only name, city, country, main society membership and email (<u>https://worldwidedirectory.apsnet.org/CreateContact.aspx</u>).
- Subject Matter Committees (SMCs): The ISPP Vice President responsible for ISPP SMCs (Dr Khaled Makkouk) maintained contact with c. 20 current ISPP SMCs. During 2018-2023 several Committees met between congresses and most organised sessions, round tables, workshops, or field trips linked to ICPP2023.

- **Commission on Global Food Security:** The <u>Commission on Global Food Security</u>, chaired by Professor Lise Korsten, works to foster linkages between plant pathology and key food security challenges, to promote understanding of the issues, and to facilitate action to sustain global food security.
- International Year of Plant Health 2020 (IYPH2020) initiative: ISPP established the Task Force on Challenges for Plant Pathology 2050 (TF-PP2050) to identify key challenges in plant pathology in 2050 and foster global focus on addressing them. Lodovica Gullino and Greg Johnson co-chaired the TF-PP2050. One important contribution is the Global Plant Health Assessment (GPHA) led by Serge Savary. The GPHA mobilised some 100 scientists worldwide who generated reports on the state and evolution of plant health and its impact on ecosystem services (provisioning, regulating, and cultural). The GPHA provides a global resource for research, education, and policy purposes, and is accessible at: <u>https://www.isppweb.org/about\_gpha.asp</u>
- Resilience Bursary for Plant Pathologists: The ISPP established a "Resilience Bursary for Plant Pathologists" in March 2022. Many societies and individuals responded to the initial call with contributions totaling over \$30,000 as of 30 June 2023. Between March 2022 and May 2023, ISPP helped support twelve scientists from Ukraine to work in plant pathology labs in Poland and disbursed \$30,100 through partnership with the Polish Phytopathological Society (PPS). The need to support Ukrainian plant pathologists continues. ISPP acknowledges Malgorzata Mańka, Malgorzata Jędryczka and colleagues of the PPS who have worked tirelessly to support the Bursary awardees and Alex Shevchenko of Taras Shevchenko National University of Kyiv, Ukraine who has liaised with Ukraine based plant pathologists.

**Türkiye and Syria.** During April 2023, in partnership with the American Phytopathological Society (APS) Office of International Programs (OIP), ISPP launched another appeal to help plant pathology colleagues in Türkiye and Syria affected by the February 2023 earthquake. ISPP has approached the Turkish Society of Plant Pathology and plant pathologists of Turkish origin based in U.S institutions to determine how support can best be provided in Türkiye. In addition, ISPP has sought information from Syria, working with colleagues in the Arab Society for Plant Protection and the Mediterranean Phytopathological Union to learn the best ways to help plant pathologists in or from Syria. Support for Türkiye and Syria is still being finalised with initial funds raised sufficient for student/scientist stipends totaling \$5,000 for individuals from regions affected by the earthquake.

Richard N Strange Travel Bursary: With the passing of Emeritus Professor Richard Strange (1938 – 2023), the Co-Founder and inaugural Editor-in Chief of the ISPP Journal, Food Security the ISPP Executive established the Richard N Strange Travel Bursary to support the attendance at ICPP2023 and future Congresses of one of the presenters from a Congress session relating to Food Security.

#### • Publications (ISPP Newsletter, the Journal and Books)

- **ISPP Newsletter.** The ISPP Newsletter provides monthly summaries on diverse and topical issues in plant pathology and is emailed to c. 2600 individuals and societies. The number of articles in each Newsletter issue averages 12 per issue, ranging from 8 to 16 per issue. Dr Daniel Hüberli has been ISPP Newsletter editor since late 2014 and has agreed to continue as Newsletter Editor in 2023-2028.
- Social media outlets: ISPP undertook a survey of social media use by plant pathologists in 2023. A concurrent session on social media use will be held at ICPP2023 where findings of the survey will be shared along with other insights on their use to enhance dissemination of plant pathology. As of 15 July, over 700 plant pathologists from 68 countries or regions have responded to the survey.
- ISPP Journal: In 2018-2023, *Food Security* has continued to perform exceptionally under the guidance of Editor in Chief Dr Serge Savary, Deputy Editor in Chief Dr Stephen Waddington, and a dedicated team providing <u>editorial and advisory support</u>. The impact factor of the journal is currently 7.1, up from around 2-3 in 2015-18. Four publication projects, equivalent to Special Issues, were published in the past five years: Seed Systems and Gender (led by C Almekinders); Gene Banks (led by Conny Almekinders);

Nutrition (led by J Harris); Food System Transformations (collective). All four have been very successful in terms of quality of articles, citations, or both.

- **Journal purchase:** In 2022-2023, the ISPP progressed an agreement to obtain full ownership of *Food Security* and negotiated a new publishing agreement with Springer-Nature for nine years starting 2024. A key element of the revised publishing agreement will be an increase in revenue share.
- Springer ISPP Book Series <u>Plant Pathology in the 21<sup>st</sup> Century</u>. Four books were published in 2020-2022, including two books based on papers presented at ICPP2018, with ISPP continuing to earn significant Royalty income from the series. ISPP Past President M. Lodovica Gullino continued as the Series Editor in 2018-2023 and will continue in this role until 2025.

#### • Awards and Prizes:

- **The 2023** Jakob Eriksson Prize will be presented to Professor Silvia Restrepo of the Universidad de los Andes (Bogota, Colombia) for her pioneering international work in mycology and plant pathology, with a focus on diseases that impact crops important to the developing world such as cassava and potato.
- **The** *Fran E. Fisher Award* was established by the International Society of Plant Pathology in 2018, to honor individuals who have made an outstanding contribution to both the science of plant pathology and society through dedicating their lives to connecting plant pathologists around the globe so as to improve plant health. The 2023 award will be made to Professor M. Lodovica Gullino at ICPP2023 in Lyon.
- **ISPP Fellows.** The 2023 ISPP Fellows will be announced after election by Council at ICPP2023.

#### • Thank You to Outgoing Executive and Secretariat:

- Members of the ISPP Executive and Secretariat who will end their term or retire during in 2023 are:
  - Dr Greg Johnson, Immediate Past President.
  - Professor Brenda Wingfield, two terms as ISPP Secretary General.
  - Dr Khaled Makkouk, ISPP Vice President responsible for Subject Matter Committees.
  - Professor Nathalie Poussereau, ISPP Vice President responsible for ICPP and Co-Chair of ICPP2023 Organising Committee.
  - Associate Professor Mathias Choquer, Co-Chair of ICPP2023 Organising Committee



## PROFESSOR MARIA LODOVICA GULLINO - FRANCENIA FISHER AWARDEE INTERNATIONAL SOCIETY FOR PLANT PATHOLOGY

Dr. Maria Lodovica Gullino recently retired as Professor in Plant Pathology at the University of Torino, Italy. Since beginning her career in 1978 she has worked in academic teaching and plant pathology research, and in national and international research, extension, and policy development. She served as Director of the Centre of Competence for Innovation in the Agro-Environmental Sector (AGRINNOVA) in the University of Torino. Her career has been marked by exceptional levels of knowledge creation, capability output, in development, international knowledge transfer, and through participation in national and international administration and policy development, particularly in plant pathology but also for sustainable agriculture.



### **PROFESSOR GULLINO'S CONTRIBUTIONS TO PLANT PATHOLOGY**

Professor Gullino's research has covered a very broad range of highly relevant topics in plant pathology and related fields. These include:

- Sustainable crop protection (development and implementation of environmentally-friendly plant protection strategies);
- Plant and food biosecurity (risk evaluation of deliberate introductions of plant pathogens, prevention and mitigation);
- New and emerging diseases of economic and ornamentals crops;
- Effects of climate change on agriculture, food security and plant diseases, including disease mitigation;
- Biological and integrated control of plant pathogens (selection of biocontrol agents, elucidation of mechanisms of action, improvement of biocontrol activity through protoplast fusion and genetic manipulation, evaluation of risks of release of modified biocontrol agents);
- Resistance to fungicides in fungal pathogens (defining characteristics and population dynamics of resistant strains, monitoring resistance in fungal populations, development and implementation of anti-resistance strategies);
- Problems with fungicide and fumigant use in plant disease management (technical, economic, social and political implications of plant disease management with restricted pesticides, environmental aspects of agricultural practices);
- Diseases of ornamentals and turf (chemical, biological and integrated disease management);
- Chemical and biological management of postharvest diseases of fruit crops;

- Food safety and food security, including mycotoxin prevention;
- Renewable energy sources from biomass and compost.

Professor Gullino's record of research output throughout her career has been truly exceptional. She has authored and co-authored more than 800 refereed research papers, contributed to more than 200 articles, and has written or edited 21 books. Of particular note have been the very broad range of topics she has covered (from basic to applied), and also her highly productive collaborative relationships with Professor Angelo Garibaldi, co-researchers and postgraduate students at the University of Torino.

### **PROFESSOR GULLINO'S CONTRIBUTIONS TO THE AIMS OF THE INTERNATIONAL SOCIETY FOR PLANT PATHOLOGY (ISPP)**

Professor Gullino maintained a very high level of input and achievement in Italian and international research and policy development relating to plant pathology, and to sustainable agriculture and food crop production. Her wide-ranging contributions include:

- Since 1994, acting as Consultant to the Italian Ministry of Environment, at national and international workshops, and in inter-government negotiations related to the Montreal and Kyoto Protocols;
- Membership of the board of directors of the Regional Environmental Centre for Central and Eastern Europe, Budapest;
- Since 2003, Programme Director of International High Level Courses on Sustainable Development for Officers, at Venice International University, providing capability development for the Peoples' Republic of China and for Central and Eastern European countries;
- Management of research projects for: the Italian Ministry of University and Research, Ministry of Agriculture, Ministry of Environment, regional governments and industry, the European Union (FP6, FP7, Horizon2020, Tempus, Life, Europaid), and for agriculture in Middle Eastern and developing countries;
- Organisation of National and International Meetings and Workshops in Plant Disease Management;
- Organisation of courses, at national and international levels, for training technicians and researchers working in IPM extension services;
- Responsibility for international projects in sustainable agriculture for international agencies;
- Participation in the PRIN 2008 and Internationalization Committees of the Italian Ministry for University and Research.

Professor Gullino played particularly significant roles as mentor and tutor of undergraduate and postgraduate students. This work at the University of Torino has involved oversight and delivery of BS courses in Organic Farming and of MS courses in Sustainable Agriculture. She has also supervised numerous students in Masters and Doctoral research and thesis completion. These contributions have resulted in excellent capability development for Italian and international plant pathologists and sustainable agriculture researchers, as highly valuable contributions to the future practice of plant pathology and applied agricultural and horticultural sciences.



Professor Gullino has served as President of the Associazione Società Scientifiche Agrarie, from 2002-2004, and President of the Associazione Italiana Protezione Piante, from 1999-2004. She has also provided a long period of service to the ISPP. In 2003 she was appointed to the ISPP Executive as Vice President, representing the Italian host societies for the 2008 International Congress of Plant Pathology (ICPP 2008). She then served as Chairperson of the ICPP 2008 Organising Committee, and was a key person in the highly successful Congress held in Torino, Italy. She was elected President of ISPP in 2008, holding that position for the following 5 years. She then continued to serve on the ISPP Executive as Immediate Past President. In addition, Professor Gullino is a co-chair of the ISPP Journal Trust, charged with providing oversight of the ownership of the ISPP journal, and is ongoing Editor of the ISPP Book Series Plant Pathology in the 21st Century, which was initiated after ICPP2008. She fulfilled more than 20 years of highly valuable input into the ISPP Congresses in Torino and Beijing, and to the on-going affairs and administration of the ISPP.

Professor Maria Lodovica Gullino will be presented the Francenia Fisher Award of the International Society for Plant Pathology during the closing ceremony of the ICPP2023 in recognition of her outstanding contributions to the science of Plant Pathology and to the aims and activities of the ISPP.

### AFRICAN ACADEMY OF SCIENCES ELECTS FIRST WOMAN PRESIDENT

#### LINDA NORDLING, RESEARCH PROFESSIONAL NEWS, 29 JUNE 2023

The African Academy of Sciences has elected a new governing council headed by a woman—the first in the organisation's 37-year history. The pan-African honorific science body announced its new governance lineup in a statement on 22 June. Lise Korsten, a plant pathologist based at the University of Pretoria, will lead the seven-strong council from July 2023-2026.

Korsten told Research Professional News that she is "excited" about taking the AAS forward.



"From a historic perspective, it is such an important academy and its founding members will remain our anchors. The academy has done well and the leadership has charted this organisation forward with commitment and passion," she wrote in an email this week.

"We plan to continue with a concerted drive to increase fellows, actively recruiting within the diaspora and particularly focusing on female scientists. An important focus will also be to closer align with other academies," she added.

## ISPP's GLOBAL PLANT HEALTH ASSESSMENT REPORTED AT THE INTERNATIONAL CONGRESS OF PLANT PATHOLOGY, LYON, FRANCE, THIS AUGUST 2023

# SERGE SAVARY, SONAM SAH, MANJARI SINGH, FEDERICA BOVE, FEDERICA BOVE, AND LAETITIA WILLOCQUET

An entire Keynote Session (Session K4) will be devoted to reporting ISPP's Global Plant Health Assessment, with three talks. The first talk, titled "State and evolution of plant health globally across Plant Systems and Ecoregions" will be presented by Federica Bove, Italy. The second talk, titled "Impacts of plant health on services rendered by Plant Systems in Ecoregions" will be presented by Manjari Singh, India. And the third talk, titled "Synthesis and implications of the findings from the GPHA" will be presented by Sonam Sah, India.

Keynote Session K4 will be jointly chaired by Pascal Frey (France) and Neil D McRoberts (USA).



#### Federica Bove

<u>Talk 1</u> State and evolution of plant health globally across Plant Systems and Ecoregions



#### Manjari Singh

Talk 2 Impacts of plant health on services rendered by Plant Systems in Ecoregions

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#### Sonam Sah

Talk 3 Synthesis and implications of the findings from the GPHA

The three talks will report first on the state of plant health in some 30 [Plant-System x Ecoregion] systems of the world. A bewildering variation in state of plant health over the past 30 years, and in recent trends over the past 10 years is described. Many forest ecosystems are strongly affected by plant diseases (forest systems are considered in South America, North America, Europe, and Australasia). Field crops (including rice, wheat, potato, cassava, banana and plantain, and maize) also show large variation: while in general the state and evolution of the main small cereals are often satisfactory and under stable control, the state of maize health shows a stark contrast between North America (good and stable) and sub-Saharan Africa (where major and mounting constraints are observed). The state of health of peri-urban horticulture (sub-Saharan Africa, South Asia, South-East Asia) is very diverse too: major diseases should cripple these hard-to-manage systems; yet continuing efforts are mainting acceptable state of health in many cases. The state of perennial crops (fruits and grapevine) is in many case satisfactory, as a result of effective IPM strategies (as in the grapevines of the Mediterranean). The state of health of urban forests is considered in only one case so far (in France), where major, and uncontrollable, epidemics occur.

The Global Plant Health Assessment considers the ecosystem services generated by these plant systems, and the consequences of plant diseases on provisioning (food, fuel, fiber, timber), regulating (e.g., local climate, carbon storage, water purification, soil conservation) and cultural (e.g., recreational, spiritual, historical values, and inspirational, artisitic roles) services. Again, wide variation is observed, which will be presented.

The assessment of plant health brings about a series of questions regarding the special relationships between humans and (diseased) plants. The consequences of diseases on plants are multi-dimensional and can be far reaching. A proximate concern is the role of diseases on food production, and thus food security. The Global Plant Health Assessment also highlights a series of challenges, concerns, and possible lines for research:

- climate change and plant diseases are increasingly documented in the health problems of many forest systems worldwide. The Forest-Pathogen(s)-Climate system necessarily has to include animal pests (Insects especially). A systems approach is required to address the mounting forest challenges in an effective way involving various disciplines.
- biological invasions are a grave concern and are seen as the result of global exchanges. Facing these difficulties implies the pursuit of the current effort toward host plant resistance by the global phytopathological community. It necessarily implies effective quarantine and risk-assessment structures which are apallingly weak in many countries of the Global South.
- disease management through chemical treatments is a necessity in many cases, if and when epidemics can
  be controlled through this approach. The IPM experience of many countries of the Global North on a
  range of Plant Systems shows that need-based chemical protection is effective. However, persistent reports
  of pesticide abuse and mis-use, including the use in some countries of pesticides which are banned in other
  countries, is a serious concern. Obviously, the IPM experience of the Global North needs to reach regions
  of the Global South where it is necessary.
- Urban forests are bound to play a growing and important role in a world of 8+ billion people, mostly living in (mega)cities. Trees and greenery are necessary for re-creation, and even for the peace of mind, as trees cool down heated streets and intercept pollution.
- the Global Plant Health Assessment reports a very grim image of sub-Saharan Africa. There, food crops are being destroyed by a bewildering range of pathogens. The resources deployed in the region are tragically inadequate. More than research, sub-Saharan Africa urgently needs field scouts, public advisory systems, locally trained an competent field staff -- no research result is of use without public extension.

These questions, and others, will be discussed during the pre-Congress Workshop on the Global Plant Health Assessment, and during an evening round-table debate. The Global Plant Health Assessment is a collective action conducted under the aegis of the ISPP by some one-hundred scientists across the world, toward plant health, which is a collective good to protect for the present and future generations. Plans will be drawn on whether and how this effort could continue.

If you are interested to know more about GPHA results, you can find <u>here</u> a synthesis of the findings and outcomes from the GPHA which has recently been published as a Feature Article in *Plant Disease*.

You can also be kept up to date on progress made in the GPHA on the GPHA website.

## Sixteenth Update on ISPP Resilience Bursary for Plant Pathologists

#### ALEX SHEVCHENKO, MAŁGORZATA JĘDRYCZKA, MAŁGORZATA MAŃKA, MATHEWS PARET, AND GREG JOHNSON

By the time this edition of the ISPP Newsletter is published the 12<sup>th</sup> International Congress of Plant Pathology (ICPP2023) will be less than three weeks away and many will be finalising their preparations for the event.

One of the highlights of the Congress from the perspective of the ISPP Resilience Bursary initiative will be the session C1.7 - Impacts of war and conflicts on plant pathology research and food safety of countries co-chaired by Jean-Jacques Herve (Paris, France), Alex Shevchenko (Kyiv, Ukraine) and Kateryna Udovychenko (Novosilky, Ukraine). Of course, because of the war, Dr Shevchenko will not be present in Lyon, but he will present the final talk in the session by pre-recorded video. The lead paper in the session by Professor Irena Budzanivska from Kyiv will concern: *Research and Education in Plant Virology in Ukraine: The Present is Foggy, The Future is Bright?* Three other papers will be presented by Ukrainian authors with other papers in the session by Dr Safaa Kumari of ICARDA covering *Phytosanitary management of ICARDA's germplasm seed collections for better future use* and Dr Romaric A. Mouafo-Tchinda of the University of Florida covering *Crop pathogen severity and pests in banana, cassava, potato, and sweet potato production in the Lake Kivu region of Rwanda and Burundi.* This session will be recorded and later available on ISPP social media (www.icpp2023.org/programme).

### BURSARY UPDATE FOR ICPP2023

The ISPP Resilience Bursary for Plant Pathologists was established by the International Society for Plant Pathology (ISPP) in March 2022 to provide support for plant pathologists displaced by conflict and natural calamities.

Between 24 February when Russia invaded Ukraine and May 2022, of the over 5.7 million people leaving Ukraine 2.7 million sought shelter in Poland. Among the refugees were Ukrainian plant pathologists (female, elderly or ill/handicapped) needing support, a consequence of the Russian aggression. The arrival in Poland of plant pathologists in need was the primary inspiration for initiating the fund, but it has now expanded, aiming to support plant pathologists from Türkiye and Syria who have been affected by the February 2023 earthquake.

To date, ISPP and ten associated societies (Australasian Plant Pathology Society, Canadian Phytopathological Society, Chinese Society for Plant Pathology (CAU group), Société Française de Phytopathologie (SFP), Società Italiana di Patologia Vegetale (SIPaV), Italian Plant Protection Association, Korean Society of Plant Pathology, Mediterranean Phytopathological Union, Royal Netherlands Society of Plant Pathology (KNPV) and the Polish Phytopathological Society (PTFit)), as well as more than 42 individuals globally, have contributed generously to the fund.





ICPP2023 by Bicycle

Pav Pal

Donate Nov

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In the leadup to ICPP2023, a group of 20 eco-conscious colleagues who are riding bicycles from Avignon to ICPP2023 at Lyon (#ICPP\_by\_bike) have joined the fundraising effort for the Bursary Fund as they ride to raise awareness about the carbon footprint of our professional and personal activities and to confront a biking challenge that can reveal obstacles to reducing our carbon footprints.

ISPP and our partners in the initiative are deeply appreciative of the support being shown for this initiative and to our generous Bursary Fund supporters.

#### **SUPPORT PROVIDED**

As of 30 June 2023, ISPP Resilience Bursaries have supported twelve Ukrainian scientists working in Polish laboratories for various times with some moving on to other funding sources or roles in Poland and elsewhere in Europe. Currently, short-term placements (2-3 months) are being offered in Polish Institutes as funds accrue since some scientists are only able to leave their home institutions in Ukraine for short-term training. The ISPP Newsletter monthly Bursary Updates have included a profile on each of the Ukrainian Bursary recipients that covers their research and institutional background in Ukraine and the activities and supervisor/research partners in Poland. As of 30 June 2023, ISPP has disbursed \$30,100 in Poland through PTFit (including \$1,300 directly by PTFit).

ISPP is currently working with the Turkish Society of Plant Pathology and the Arab Society of Plant Protection to establish a structure of release of student/scientist stipends totalling \$5,000 for individuals from regions affected by the February 2023 earthquake.

In discussions since the bursary fund was initiated, several people have commented that there are many other situations globally where potentially at least, plant pathologists need support. How long the need by scientists from Ukraine, Türkiye and Syria will go on, we don't know, but in the future, it is hoped the fund can be available for plant pathologists in need from other parts of the world as well. Perhaps as you read this you or your society may also wish to contribute to the fund (or organise a fundraiser) since the need remains urgent, while our funds are dwindling. (Enquiries can be directed to <u>resilience@isppweb.org</u>.)

International Society for Plant Pathology

The PayPal Button and QR code donation links provides donors with the opportunity to choose the destination of their donation as for (a) Any emerging need (b) Türkiye (c) Syria or (d) Ukraine.

ISPP expects that the global reach of this program will expand as per needs of plant pathologists. With continued fund raising and disbursement capabilities working together with Associated Societies, ISPP is in an excellent position to support plant pathologists in need.



## PLEASE COMPLETE OUR SURVEY ON PLANT PATHOLOGY IN THE SOCIAL MEDIA AGE

#### BY GREG JOHNSON AND ANDREA MASINO

Thanks to all respondents to our survey with the results to be reported at ICPP. We are keeping the survey open until after the Congress so we might obtain responses from more of the 2000 + Congress delegates! So far we have received 700 + responses. We're hoping for 1000 responses so, if you haven't already, please help us by completing it now and please add your views in the comments section!.

At ICPP2023 and in our reports via the ISPP newsletter, survey findings will be summarised under

- (a) topics most important to social media readership
- (b) platforms respondents use to access plant pathology related topics and inspiration
- (c) scientific societies and other sources of plant pathology information and
- (d) the demographic profiles of users and non-users.

The Green Button below has the link to the survey.

CLICK HERE TO PARTICIPATE IN THE SURVEY!



## OBITUARY OF PROFESSOR GUIDO SESSA, 1964-2023

Professor Guido Sessa (1964-2023), molecular plant pathologist, The George S. Wise, Faculty of Life Sciences, Tel Aviv University, Israel. Guido will be remembered for his significant strides in understanding the molecular mechanisms governing plant immunity and susceptibility to bacterial plant pathogens through a multifaceted research approach.

More tributes to Guido:

In Memoriam: Prof. Guido Sessa, A Beacon in Plant Pathology and Immunity Research (aissiassociation.org)

We bow our heads in sadness this morning, with the publication of the news of the untimely passing of our beloved friend, Prof. Guiado Sessa | Marine Ecological Restoration (MER) Workshop | Tel Aviv University (tau.ac.il)

### **PHYTOPATHOLOGY FOCUS ISSUE**

The study of plant disease resistance is at the dawn of a new era, facilitated by cutting-edge technologies and multidisciplinary interactions that are transforming our understanding of host resistance for sustainable disease management.

Exploring this topic further, Guest Editors Awais Khan, Roi Ben David, Richards Jonathan, Urmil Bansal, Congli Wang, Curt McCartney, Remco Stam, and Nian Wang proudly present "Plant Disease Resistance Research at the Dawn of the New Era," a *Phytopathology* focus issue with 15 articles covering various aspects of 15 diseases that cause significant crop and economic losses. <u>Read this focus issue today</u>!



## CHANGING OF THE GUARD – ISPP COMMITTEE FOR THE TAXONOMY PLANT PATHOGENIC BACTERIA (CTPPB) SEEKS NEW MEMBERS AND CHANGES LEADERSHIP

#### PROFESSOR CAROLEE BULL, 21 JULY 2023



Left to right are Marco Scortichini, Marion Fischer-Le Saux, Giuseppe Firrao, and Carolee Bull (Photo credit: Samuel Martins).

Are you interested in the taxonomy and nomenclature of plant pathogenic bacteria? The ISPP-CTPPB is seeking new members to help us with our work. To nominated yourself or someone else, please send a CV highlighting work in bacterial taxonomy and especially nomenclature and a short note indicating your interest to <u>marion.lesaux@inrae.fr</u> and <u>Teresa.Coutinho@up.ac.za</u> by October 1, 2023 to be considered. For selection of candidates, we will consider experience with the International Code of Nomenclature of Prokaryotes and the International Standards for Naming Pathovars of Phytopathogenic Bacteria as well geographic and taxon representation.

At the 2018, ISPP meeting in Boston, Marion Fischer-Le Saux and Teresa Coutinho were nominated and later elected as the convener and vice convener of the ISPP-CTPPB. We completed transition of the leadership and officially welcome Dr. Fischer-Le Saux and Professor Coutinho as the new leadership of the committee. Dr. Marion Fischer-Le Saux is a researcher at the French National Research Institute for Agriculture, Food and Environment (INRAE), in Angers, France, working on the emergence, systematics and ecology of plant-associated bacteria. She was head of the French Collection of Plant associated Bacteria (CIRM-CFBP) for fifteen years. Her expertise in bacterial taxonomy includes a wide range of plant pathogenic bacteria including recent publications on *Xanthomonas, Pseudomonas, Pectobacterium* as well as Gram + pathogens. Fischer-Le Saux has been a member of the ISPP-CTPPB since 2006.

Professor Teresa Coutinho has served as a member of the ISPP-CTPPB since 2013. Coutinho and their students have described novel taxa (e.g., *Lonsdalea* gen. nov.) and has used their expertise on the taxonomy of plant pathogens from relatively new genera to advance the work of the committee. Coutinho is a Professor in the Department of Biochemistry, Genetics and Microbiology and a member of the Centre for Microbial Ecology and Genomics and the Forestry and Agricultural Biotechnology Institute at the University of Pretoria, South Africa.

The ISPP-CTPPB thanks Professor Carolee Bull for her service as the convener of the committee from 2013 to 2022 and a member since 2000. During Bull's leadership the committee published a Comprehensive List of Names, two updates to the lists and a review of issues related to bacterial nomenclature of plant pathogenic bacteria <u>https://www.isppweb.org/about\_tppb.asp</u>. Bull and colleagues have prepared a draft of the next Comprehensive List of Names which the committee International Society for Plant Pathology

hopes to submit for publication in 2024. Bull is a Professor of Systematic Bacteriology and Plant Pathology at The Pennsylvania State University.

The ISPP-CTPPB thanks Professor Gerry Saddler for his service on the committee from 1992 to 2022. Over their 30 years of service, Saddler has provided continuity to ensure that the committee considered previous decisions and actions in contemporary discussions. He used his expertise in the Soft Rotting Pectobacteriaceae, Gram positive plant pathogens, *Ralstonia*, and many other plant pathogenic bacteria in his service to the committee. Saddler is the Chief Plant Health Officer for Scotland and the Head of the Science and Advice for Scottish Agriculture (SASA) Division of the Scottish Government Agriculture and Rural Economy Directorate and holds an Honorary Professorship by Heriot Watt University, Edinburgh.

We also celebrate the retirement of Professor Yuichi Takikawa from the CTPPB after 30 years of service (1992 to 2022). Professor Takikawa expertise in *Pseudomonas* taxonomy was essential to ten peer reviewed publications produced by the committee during his tenure on the committee. His work on the epidemiology of bacterial plant diseases advanced our understanding and management. He received both the Young Scientist Award (1986) and the Society Fellowship Award (2012) from the Phytopathological Society of Japan. In April 2022, Professor Takikawa retired from his position as a Professor of Plant Pathology at the Shizuoka University where he served for over 40 years and is now an Emeritus Professor.



### EXPANDING ROLES FOR WOMEN IN PAKISTAN'S VEGETABLE VALUE

### **CHAINS**

#### ACIAR NEWS, 16 JUNE 2023

### IMPROVED ONION HARVESTING, GROWING TOMATO SEEDLINGS AND GRADING SEED POTATOES – EACH OF THESE IS INCREASING THE VALUE OF CROPS FOR VEGETABLE GROWERS IN **P**AKISTAN, EXPANDING ROLES FOR WOMEN AND INCREASING THE STANDING OF WOMEN IN LOCAL COMMUNITIES.

The innovative use of female social mobilisers and a wholeof-family extension approach has created opportunities for women to participate in training to improve the value of vegetable crops and incomes for smallholder farmers in Pakistan. Smallholders make up 70% of Pakistan's farming community, in which men and women have defined roles in agricultural systems and social practices that can restrict the involvement of women.

The international not-for-profit organisation CABI (Centre for Agriculture and Bioscience International) has led a 5year ACIAR-supported project to improve the vegetable value chains for smallholders, which concluded in December 2022. The project focused on value chains for onions in the Sindh province, and for tomatoes and potatoes in the Punjab province. Developing a model for a gender-inclusive value chain was a fundamental part of the project.

CABI project manager Mr Muhammad Asif said social mobilisers employed in each of the 3 value chains played a



Training sessions developed for female farmers and farm workers in onion, tomato and potato vegetable chains is improving the value of crops and providing new income opportunities (Photo credit: CABI).

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critical role in the multidisciplinary research teams, helping to engage female farmers and farm workers to implement project activities.

"Women have designated roles in farming, and these are often the roles that are crucial to improving the value of produce. The project as a whole helped to move farmers from a production to a market-driven approach," said Mr Asif.

"Whole families were involved in the value-chain discussions, so we were engaging youth with this new perspective as well."

The project team directly trained 343 vegetable farmers (172 men, 135 women and 36 youth) in nursery production, crop management, post-harvest processes and marketing, indirectly reaching another 1,166 farmers (779 men, 291 women and 96 youth).

Mr Asif said the 67 project staff included 45 men and 22 women, who identified value-chain constraints and developed interventions to increase product quality and production efficiency. The result was a significant increase in household income and crop gross margins per acre for the 5 villages involved.

Read more.

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### **CRISPR'D** RICE RESISTANT TO MAJOR FUNGAL PATHOGEN

#### GENETIC ENGINEERING AND BIOTCHNOLOGY NEWS, 19 JUNE 2023

Genome editing's role in crop improvement is in its infancy. Though CRISPR'd mustard greens and a tomato have made headlines, using CRISPR to help feed the world has not been broadly utilized. Rice, which is amenable to genome editing, is a staple food for half of the world. However, rice blast, caused by the fungal pathogen *Magnaporthe oryzae*, results in large-scale annual losses. Now, CRISPR has been used to successfully engineer broad-spectrum disease resistance in rice plants (*Oryza sativa*). In addition, small-scale field trials in China showed that the newly created rice variety exhibited both high yields and resistance to the fungus.

This research is published in *Nature* in the paper, "Genome editing of a rice CDP-DAG synthase confers multipathogen resistance."

The roots of the discovery began when Guotian Li, PhD, was a postdoc in the lab of Pamela Ronald, PhD, professor in the department of plant pathology at the University of California, Davis. There, Li identified a strain that would prove promising out of the 3,200 rice strains they sequenced.

"He found that the strain was also resistant to bacterial infection, but it was extremely small and low yielding," Ronald said. "These types of 'lesion mimic' mutants have been found before but only in a few cases have they been useful to farmers because of the low yield."

More recently, in his lab at the Huazhong Agricultural University in Wuhan, China, Li used CRISPR-Cas9 to isolate the gene related to the mutation in the strain and recreate that resistance trait—identifying a line with good yield and resistance to three different pathogens, including the fungus that causes rice blast.

Li's team isolated a lesion mimic mutant (LMM) and demonstrated that a 29-base-pair deletion in the gene RESISTANCE TO BLAST1 (RBL1)—which encodes a cytidine diphosphate diacylglycerol synthase required for phospholipid biosynthesis—caused broad-spectrum disease resistance and caused an approximately 20-fold reduction in yield. Mutation of RBL1, they noted, results in reduced levels of phosphatidylinositol and its derivative phosphatidylinositol 4,5-bisphosphate (PtdIns(4,5)P2), which is thought to have a role as a disease-susceptibility factor.

In small-scale field trials planted in disease-heavy plots, the new rice plants produced five times more yield than the control rice, which was damaged by the fungus, Ronald said. "Blast is the most serious disease of plants in the world," she added, "because it affects virtually all growing regions of rice and also because rice is a huge crop."

The researchers hope to recreate this mutation in commonly grown rice varieties. Currently, they have only optimised this gene in a model variety called "Kitaake" which is not grown widely. They also hope to target the same gene in wheat to create disease-resistant wheat.

"A lot of these lesion mimic mutants have been discovered and sort of put aside because they have low yield," Ronald said. "We're hoping that people can go look at some of these and see if they can edit them to get a nice balance between resistance and high yield."

## **CURRENT VACANCIES**

# Assistant Professor of Plant Pathology (Potato Pathology) - Washington State University, Position # 128780

The Department of Plant Pathology at Washington State University (WSU) is recruiting a full-time (12 months), tenure-track position in plant pathology at the rank of Assistant Professor. The successful candidate will: 1) develop a nationally and internationally recognized research program leading to enhanced management of diseases of potatoes grown in Washington State and the Pacific Northwest; 2) develop an extension program relevant to Washington potato production; 3) contribute to the teaching mission of the department and the College of Agricultural, Human, and Natural Resource Sciences (CAHNRS); 4) provide service contributions to the department, college, and university; and 5) contribute to WSU's commitment to diversity, equity, and inclusive excellence. More info about the position and further instructions in the <u>PDF</u>.

Submit the application online (<u>https://hrs.wsu.edu/jobs/</u>).

### **ACKNOWLEDGEMENTS**

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### **COMING EVENTS**

#### Plant Health 2023 - APS Annual Meeting

12 August - 16 August, 2023 Denver, Colorado, USA Website: www.apsnet.org/meetings/annual/Pages/default.aspx

#### 12<sup>th</sup> International Congress of Plant Pathology (ICPP2023)

20 August - 25 August, 2023 Lyon, France Website: <u>www.icpp2023.org</u>

Plant Pathology 2023 5 September - 8 September, 2023 Birmingham, UK Website: <u>www.bspp.org.uk/conferences/plant-pathology-2023/</u>

#### X International Conference "Bioresources and Viruses" 11 September - 13 September, 2023 Kviv, Ukraine

Kyiv, Ukraine Website: <u>icbv.knu.ua</u> 24<sup>th</sup> Australasian Plant Pathology Society Conference 20 November - 24 November, 2023 Adelaide, South Australia Website: <u>eventstudio.eventsair.com/apps2023/</u>

**XX International Plant Protection Congress** 1 July - 5 July, 2024 Athens, Greece Website: <u>www.ippcathens2024.gr</u>

International Conference on Plant Pathogenic Bacteria & Biocontrol 2024 7 July - 12 July, 2024 Virginia Tech, Blacksburg, VA, USA Website: <u>icppbbiocontrol2024.org</u>

9th ISHS International Postharvest Symposium 11 November – 15 November, 2024 Rotorua, New Zealand Website: <u>scienceevents.co.nz/postharvest2024</u>





## 12<sup>th</sup> INTERNATIONAL CONGRESS ON PLANT PATHOLOGY



ONE HEALTH for all plants, crops and trees



ICPP

# 20-25 August, France

The International Society for Plant Pathology & the French Phytopathological Society

www.icpp2023.org

ISPP INTERNATIONAL

#### INTERNATIONAL SOCIETY FOR PLANT PATHOLOGY (ISPP)

#### WWW.ISPPWEB.ORG

The ISPP List is an e-mail list server which broadcasts messages and announcements to its subscribers. Its goal is to facilitate communication among members of the International Society for Plant Pathology and its Associated Societies. Advertised vacancies in plant pathology and ISPP Newsletter alerts are also sent to members of the ISPP List.

In accordance with the guidelines and recommendations established by the new EU General Data Protection Regulation 679/2016 (GDPR), the International Society for Plant Pathology has created a <u>Privacy Information</u> <u>Notice</u> containing all the information you need to know about how we collect, use and protect your personal data.

This policy explains when and why we collect personal information about our users, how we use it, the conditions under which we may disclose it to third parties, how we keep it safe and secure and your rights and choices in relation to your personal information.

Should you need further information please contact business.manager@issppweb.org

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