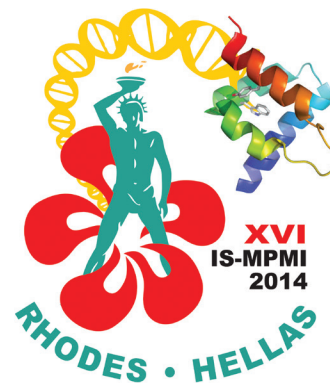


XVI International Congress on MPMI
Rhodes Island, Greece
July 6-10, 2014



TRAVEL AWARDEES



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2014 XVI International Congress Travel Awards

in honor of IS-MPMI Member Dr. Ko Shimamoto



The 2014 IS-MPMI XVI Congress Awards are named in honor of Dr. Ko Shimamoto. Dr. Shimamoto made notable contributions to the fields of flowering and plant immunity that brought him respect and recognition worldwide. The awards are provided in recognition for his service as the chair and main organizer of the XV International Congress of Molecular Plant-Microbe Interactions that was held in Kyoto in 2012. He played a critical role in promoting and developing MPMI research in Asia. The Kyoto Congress, he so successfully organized, was the first that IS-MPMI held in Asia. He is fondly remembered for his kind and gentle character, his dedication to his students, and his role as an inspiring and caring mentor.



Cris Argueso
Colorado State
University
U.S.A.

Cris Argueso is an assistant professor in the Department of Bioagricultural Sciences and Pest Management at Colorado State University in Fort Collins, CO. Originally from Brazil, Argueso worked on maize genetics as an undergraduate student and on the regulation of biosynthesis of essential amino acids in rice for her masters degree. For her Ph.D. degree at Cornell, she started working on the regulation of tryptophan biosynthesis, a biosynthetic pathway that also gives rise to secondary metabolites with a role in defense to pathogens. That initial work got her hooked in plant pathology, and she soon found herself working on systemic acquired resistance against oomycetes and bacterial pathogens. Her interest for plant hormones also developed during her Ph.D. work and led her to a post-doc position at the University of North Carolina with Joe Kieber and Jeff Dangl. Today, Argueso is leading her own lab at Colorado State University and is interested in how hormones mediate responses to the environment, including, of course, defense against pathogens. "I could never be away from plant pathology," she says. "I tried it before. I just can't, it is too beautiful to let go."



Laura Boyden
University of the
West of England
United Kingdom

My route into a career in science was not a typical one. After initially studying English and history at college, I went on to work as a hairdresser. At the age of 26, I decided upon a complete change and embarked upon a degree in biomedical science, where I discovered my love of research. I am currently in my second year of a Ph.D. program at the University of the West of England; my research interests lie in the interaction between the plant pathogen *Pseudomonas syringae* and the common bean plant. My research investigates the dynamics of genomic island PPHGI-1, which affects the virulence of *P. syringae* pv. *phaseolicola*. A change from avirulence to virulence on bean has been demonstrated upon deletion of PPHGI-1 from the chromosome of *P. syringae* pv. *phaseolicola*. The interaction between *P. syringae* pv. *phaseolicola* and the bean plant affects the excision of PPHGI-1 and, therefore, the virulence of *P. syringae* pv. *phaseolicola*. I am interested in factors that may affect this interaction and subsequent excision of PPHGI-1.



Susan Breen
The Australian
National University
Australia

I am originally from the United Kingdom but am currently a post-doc in the Solomon Lab at the Australian National University in Canberra. My post is a three-year position. My current project is to identify and investigate the host targets of proteinaceous effectors from the necrotrophic fungus *Stagonospora nodorum*. My research interest are focused on the plant-pathogen interaction. Specifically, the arms race that ensues between the plant and pathogen. I have a keen interest in the mechanisms by which evasion and recognition occur and the modifications that the pathogens can make within the host to cause disease. I find this area of study fascinating as the evolutionary pressures that have aided in the development of these relationships mean that they are very complex systems, providing a challenge. As we begin to understand these systems, we can also learn about the evolutionary pressures and how they have occurred. This is especially true in recent times with the development of agriculture. As our knowledge of these complex systems grows, maybe we can slow the selection pressure on the pathogens so that new and existing crops may thrive for longer before being seriously affected by disease.



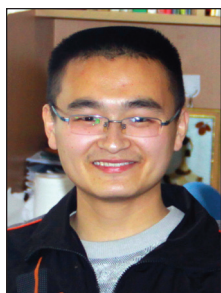
Ruth Campe
RWTH Aachen
University
Germany

I am a Ph.D. student just before graduation at RWTH Aachen University in Germany and work in the molecular phytopathology group of Katharina Goellner on *Arabidopsis* nonhost resistance against the Asian soybean rust pathogen *Phakopsora pachyrhizi*. My main interests are the molecular mechanisms that lead to the establishment of this durable and broad-spectrum type of resistance. In my Ph.D. project I focused on identifying binding partners of the nonhost resistance key protein PEN3.



Clare Casteel
University of
California, Davis
U.S.A.

I am a new assistant professor in the Department of Plant Pathology at the University of California, Davis (summer 2014). The primary research goal of the Casteel lab is to identify the functions of microbes in plant-insect interactions and elucidate the key molecular mechanisms responsible for these relationships. The Casteel lab is currently using *Arabidopsis*, *Turnip mosaic virus*, and *Myzus persicae* to (1) determine the impact of individual viral proteins on plant-aphid interactions; (2) investigate host targets of viral proteins responsible for producing the host plant phenotype and extended phenotype in the insect vector; and (3) decipher the early signaling events and the mechanisms of plant resistance that occur during pathogen transmission by insect.



Cheng Chang
Chinese Academy of
Sciences
China

I am a Ph.D. student at the Institute of Genetics and Developmental Biology, Chinese Academy of Sciences, in Beijing. I joined Qian-Hua Shen's group in November 2008. Plants employ numerous resistance proteins to detect the avirulent pathogen infection and activate the effector triggered immunity (ETI). The ETI usually accompanies the massive transcriptional reprogramming which is mediated by the specific transcription factors (TF). Our previous studies showed that the activated barley resistance protein MLA triggered the defense signaling through interacting and interfering with the WRKY1/2 repressor function in the nucleus. I am interested in studying how the MLA mediates the transcriptional reprogramming through interacting with WRKY1/2 TFs.



Claire Drurey
John Innes Centre
United Kingdom

I am a U.K.-born third-year Ph.D. student in Saskia Hogenhout's lab at the John Innes Centre in Norwich, United Kingdom. My research focuses on the interaction between aphids and plants, using the model species *Myzus persicae* (green peach aphid) and *Arabidopsis thaliana*. I investigate both the detection of the aphid by the plant, which seems to be similar to PAMP-triggered immunity, as well as of aphid proteins that we believe act as effectors to block plant immune responses. Due to this, I am interested in both the study of pathogen effectors as well as initial mechanisms of plant recognition of pathogens. I am particularly curious about signaling pathways that could overlap and link these two areas. I am also interested in systems such as my own that are still emerging or less well represented in the field, such as other plant-insect and plant-nematode interactions.



Pierre-Marc Delaux
University of
Wisconsin
U.S.A.

After earning a master degree in structural biochemistry, I joined Guillaume Becard's lab at the University of Toulouse (France) to study the early signaling events taking place during the arbuscular mycorrhizal symbiosis (2008–2011). In particular, I studied the role and evolution of plant symbiotic signals, the Strigolactones, a class of molecules at the interface between symbiosis and development. I then moved to Jean-Michel Ané's lab (University of Wisconsin-Madison) to work as a post-doctoral researcher on nitrogen-fixing cereals. There, I also have the chance to develop my own projects on the evolution of plant symbioses using a large array of approaches: phylogenomics, biochemistry, genetic, and physiology (2011–2014).



**Sebastian Eves-van
den Akker**
University of Leeds
United Kingdom

As a Dutch national born in the United Kingdom, I am currently studying for a Ph.D. degree on the biotrophic interaction of plant-parasitic nematodes under the supervision of P. E. Urwin and J. Jones at the University of Leeds and The James Hutton Institute. The focus of the Ph.D. research was to identify and characterize nematode effectors responsible for the successful establishment and maintenance of biotrophy. I have been fortunate enough to have the freedom to explore other areas of particular interest throughout my Ph.D. work and this has driven me in the direction of host specificity and ultimately the molecular basis of plant-pathogen interactions.



Alice Delga
INRA LIPM
France

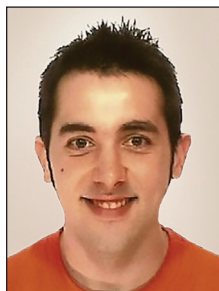
I am currently a Ph.D. student (French Ministry of Higher Education and Research fellowship) at the LIPM (Laboratory of Plant-Microbe Interactions, Toulouse, France). I study plant defense activation after infection by the bacterial pathogen *Ralstonia solanacearum*. I am characterizing the role in plant defense of two bromodomains (BRD) containing proteins from *Arabidopsis thaliana* targeted by a *Ralstonia* effector.



Giulia Furlan
Leibniz Institute for
Plant Biochemistry
Germany

I am a fourth-year Ph.D. student at the Leibniz Institute for Plant Biochemistry in Halle (Germany). More specifically, I am part of the Junior Research Group Ubiquitination in Immunity, supervised by Marco Trujillo. In my doctoral project, I study the U-box type E3 ligase PUB22 and am trying to elucidate the mechanisms that regulate its activity during PAMP-triggered immunity, choosing a combined cell biological and biochemical approach to investigate PUB22 intracellular localization and the molecular mechanisms that mediate its stabilization respectively. In 2009–2010, I was at the University of Wuerzburg (Germany) to work on my master thesis, entitled "Cell biological analysis of U-box type E3 ubiquitin ligase in plants". There, I gained experience with plant transient transformation methods and microscopy, techniques I still use. I obtained bachelor (2008) and master (2010) degrees in molecular biology from the University of Padova, Italy, my hometown, where I came

in contact for the first time with plant biology. During my bachelor thesis, I was involved in a sequencing project for the mapping of the transcriptome of *Vitis vinifera* by developing a protocol to extract mRNA from grape leaves. This research is very important for the wine economy of the region where I come from.



Jordi Gamir Felip
Universitat Jaume I
Spain

I am from Castellon, a little city on the east coast of Spain. I earned a bachelor degree in chemistry at the University of Castellon (Universitat Jaume I [UJI]). I did my master work in chromatographic techniques at UJI, and I started my research career as a Ph.D. student in the metabolic integration and cell-signaling group in Victor Flors' lab. I was involved in the project "Research for new priming mediated molecules upon pathogenic and insect attacks," funded by Arta. I have had the opportunity to collaborate with several colleagues in other studies.

Furthermore, I spent time at Rothamsted Research Center in Harpenden, London; at Gottingen University in Ivo Feussner's lab; and at Neuchatel University in Brigitte Mauch-Mani's lab. My research interests are focused in plant responses against a broad range of pathogens in both basal resistance and induced resistance (IR). Among the plant responses in IR conditions, there are several compounds that mediate the resistance of the plant that are currently tagged as primed compounds. Different priming stimuli induced by chemical priming molecules or natural priming, such as constitutive *Arabidopsis* mutants, are also very important. The metabolic responses triggered by those priming stimuli are a key point in my research.



Artemis Giannakopoulou
The Sainsbury
Laboratory
United Kingdom

I am currently a third-year Ph.D. student in Sophien Kamoun's group at The Sainsbury Laboratory in Norwich, United Kingdom. I am working with a tomato NB-LRR resistance protein, I2, and its interactions with effectors present in pathogenic races of the tomato wilt-causing ascomycete *Fusarium oxysporum* f. sp. *lycopersici*. The aim of my project is to develop strategies for durable resistance by employment of synthetic disease resistance proteins. My main objective is to expand the response of the I2 resistance protein to a range of related effectors, which may lead to the development of broad-spectrum solutions to

plant pathogens that share the same effector families. My research interests are related to the plant-microbe interactions field and, more specifically, I am interested in unraveling the mechanisms underpinning plant pathosystems, as a way to engineer sustainable crop disease resistance. Coming from Greece, a country with a great agronomical history, it is very important for me that my work reflects the need for solutions to recurrent problems that threaten food security globally.



Selena Gimenez Ibanez
Spanish National
Biotechnology Centre
Spain

I am a post-doctoral researcher in plant-microbe interaction. I was an agronomist engineer at the Polytechnic University of Valencia (Spain) with specialization in plant biotechnology and breeding. My master thesis at Wageningen University (The Netherlands) in Rene Geurts' group focused on symbiotic interactions in legume plants. My Ph.D. studies were at The Sainsbury Laboratory at John Innes Centre (Norwich, UK) under the supervision of John Rathjen. There, I worked on the identification of innate immune components in plants against bacteria and the mechanisms used by phytopathogenic bacteria to overcome them through the injection of bacterial effectors into the plant cell. I specialized in plant-pathogens interactions with the objective of developing fundamental scientific research to deliver science solutions that reduce crop losses to important diseases. I finished my Ph.D. degree and joined Roberto Solano's group at the National Centre of Biotechnology CSIC (CNB-CSIC) in Madrid, Spain. Recently, I was awarded a UNESCO-LÓREAL post-doctoral long-term fellowship for woman in science for Europe & North America 2014 to join Vardis Ntoukakis' group at the University of Warwick, United Kingdom. The project will be developed together with Solano's Spanish Home Laboratory, CNB-CSIC. In this work, I will use a combination of genetic and biochemical approaches to address the role of chromatin remodeling mechanisms in regulating plant immunity against bacterial pathogens.



Anil Madhusoodana Girija
Centre for Cellular
& Molecular
Biology (CCMB)
India

I am a Ph.D. student from India doing research on the role of lipopolysaccharide in rice-*Xanthomonas oryzae* interaction under the supervision of Ramesh V. Sonti. My research interests involve pathogen adaptations to plant resistance mechanisms mediated through bacterial effectors, the molecular mechanisms involved in defense priming of plants, and population dynamics of phytopathogens.



Enrico Gobbato
University of
Cambridge
United Kingdom

I am originally from Italy (from a small town not far from Venice), but I have been living abroad for more than 10 years now. After getting my Ph.D. degree from the University of Cologne in Germany, I did my first post-doc work in the John Innes Centre in Norwich, United Kingdom, and my second post-doc work at the CIRAD in Montpellier in France. I am currently working as post-doc at the University of Cambridge in the Department of Plant Science in the lab of Uta Paszkowski. My main professional interest is in signaling and plant-microbes interactions with particular emphasis on symbiotic interactions.



Caroline Gutjahr
University of Munich
(LMU)
Germany

Caroline Gutjahr is German and works as a research group leader at the University of Munich (LMU) in Germany. Her current research focuses on plant molecular mechanisms required for the development of arbuscular mycorrhiza symbiosis. She studied biology at the University of Freiburg im Breisgau, Germany, and the University of Aberdeen, Scotland. During her stay in Aberdeen, she learned about root symbioses and became immediately fascinated by the intricate interplay between the symbionts. Therefore, after her studies, she joined the traditional mycorrhiza lab of Paola Bonfante at the University of Turin, Italy, as a Marie Curie fellow and worked on the influence

of fungal presymbiotic signals on root carbon metabolism. Supported by the German Academic Merit Foundation and the Roche Foundation, she pursued her Ph.D. degree in the lab of Uta Paszkowski at the Universities Geneva and Lausanne, Switzerland, where she was strongly involved in building rice as a new model plant for arbuscular mycorrhiza research. After a short post-doc position in the lab of Paszkowski, she started her own group approximately two years ago at the LMU Munich in the division of genetics, which is headed by Martin Parniske.



Miekie Haasbroek
University of Pretoria
South Africa

I am currently completing my M.Sc. biotechnology degree at the University of Pretoria, South Africa. The research conducted in my master's study focused on the population genetic structure of *Exserohilum turcicum* in South Africa. *Exserohilum turcicum* is the causal agent of Northern corn leaf blight, a yield-limiting foliar disease affecting maize, sorghum, and related grass species. I intend to commence with a doctoral degree by July of this year. The research focus of my Ph.D. work will be on the interaction between maize and *E. turcicum*, specifically related

to the effectors secreted by *E. turcicum*.



Morgan Halane
University of Missouri
U.S.A.

I am a second-year graduate student from the United States (University of Missouri) currently working in the lab of Walter Gassmann, where we study the plant innate immune system. Specifically, my research is focused on how an effector protein, AvrRps4, functions within the plant cell to promote pathogen virulence in susceptible *Arabidopsis* plants and trigger immunity in resistant ones.



Samira Hassan
The Australian
National University
Australia

Samira Hassan is a Ph.D. scholar at the Australian National University (ANU) in Canberra. Originally from India, Hassan is presently studying the roles flavonoids play in symbiotic and pathogenic plant-microbe interactions, with guidance from Ulrike Mathesius. She is supported by the ANU Postgraduate Award and the Australian Government tertiary education scholarship. Prior to this, Hassan obtained a master of biotechnology (Honours) degree from the Australian National University and a bachelor of biochemical engineering (Honours) degree from the International Islamic University Malaysia.

Hassan has a keen interest in rhizosphere interactions and would like to further study symbioses in roots at a molecular level, employing her skills in molecular biology and metabolomics.



Alejandra Huerta
University of
Wisconsin-Madison
U.S.A.

I am a graduate student in the Department of Plant Pathology at The University of Wisconsin-Madison. My research interests focus on broad translational impacts for international agriculture and development. This interest arose in part from my personal experience in a family of agricultural workers in California and more recently from a U.S. Borlaug fellowship in Global Food Security, where I worked on a USAID Horticulture Project in Bangladesh and Taiwan. Furthermore, I am interested in bacteriocins, proteinaceous toxins, produced by bacteria to inhibit the growth of closely related bacterial strains

and their potential for biological control in the *Ralstonia solanacearum* species complex. My country of origin is Mexico.



Bethany Huot
Michigan State
University
U.S.A.

I am currently a fourth-year Ph.D. candidate at Michigan State University, mentored by Sheng Yang He and Beronda Montgomery. My thesis research involves identifying the molecular mechanism underlying temperature modulation of salicylic acid (SA)-mediated defense in the model plant *Arabidopsis thaliana* and determining how such modulation affects *Pseudomonas syringae* pv. *tomato* DC3000 (DC3000) infection. My long-term research interests involve using a combination of genomic and phenomic approaches to optimize crop yield and nutritional quality under variable and adverse

environmental conditions. I am a U.S. citizen and have spent most of my life in Michigan. However, the multiple exposures I had to life outside of the United States—including two years living as a missionary kid in Thailand as well as visits to Vietnam and the Dominican Republic—fuel my passion to improve crop performance and quality to help address global issues of hunger and malnutrition.



Juliane K. Ishida
RIKEN Institute
Japan

I am originally from Brazil. In March of this year I received my doctoral degree from the University of Tokyo in Japan. Currently, I am post-doctoral researcher at RIKEN Institute under the supervision of Ken Shirasu and Satoko Yoshida. My research focuses on understanding the molecular mechanisms controlling the establishment of plant parasitism.



Christine Kraus
Cornell University
U.S.A.

I am third-year graduate student in the Department of Plant Pathology and Plant-Microbe Biology at Cornell University. I am working in the lab of Gregory Martin on a project to elucidate the evolution of a family of resistance genes that allow tomatoes to be resistant to *Pseudomonas syringae*. More generally, I am interested in the mechanisms underlying the perpetual evolutionary arms race between plant pathogens and their hosts. Plants have to constantly deal with many different pathogens, and both sides are continually evolving to ensure their

survival. In my research, I am using wild tomato species and *Pseudomonas syringae* as a model system to describe the intermediate evolutionary steps that allowed tomatoes to acquire a complete resistance against an adapted pathogen. I was born in Peru, a country that is the center of origin of a large number important crop plants, including numerous *Solanaceous* species and several grains and legumes. It is also home to the International Potato Germplasm Center. I am also half Austrian, and after finishing high school in Lima I had to the opportunity to move to Austria to pursue my masters degree in molecular biology at the University of Vienna.



Hannah Kuhn
RWTH Aachen
University
Germany

I was born in 1981 and studied biology in my hometown Karlsruhe, Germany (2001–2006). I soon got interested in plant-microbe interactions. In Karlsruhe, I started my Ph.D. thesis with Natalia Requena, who was working on molecular aspects of arbuscular mycorrhizal (AM) symbiosis. During this time (2007–2011), I specialized on the research on the obligate biotrophic AM fungi and their symbiotic interactions with plant roots, focusing on the early recognition of the two symbionts and the resulting molecular and cellular consequences. During my Ph.D. thesis the fact that AM fungi secrete

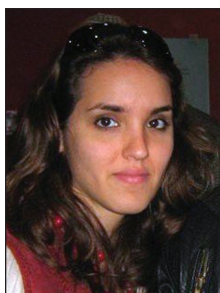
effectors to manipulate their host's defense sparked my interest in parasitic interactions. I joined Ralph Panstruga's group at the University of Aachen (RWTH) as a post-doc in 2012. Our lab focuses on molecular and cellular aspects of plants interactions with powdery mildew fungi. One of my current main research interests is the reciprocal influence of different biotrophic interactions in the same plant. One of my projects investigates the molecular background of the reciprocal influence of rhizobial and AM root symbiosis on powdery mildew infection in the leaves. My second main project investigates the broad-spectrum powdery mildew resistance of mlo (mildew locus O) mutated plants. I test the hypothesis that mlo-mediated resistance is based on an accelerated defense response.



Jillian Lang
Colorado State
University
U.S.A.

I earned my B.S. degree in biology at the State University of New York, College at Fredonia, United States, and my M.S. degree in plant pathology at Colorado State University (CSU), United States, where I explored biological control strategies for *Xanthomonas axonopodis* pv. *allii*, causal agent of Xanthomonas leaf blight of onion using bacteriophages. I was fortunate to remain in the Department of Bioagricultural Sciences and Pest Management at CSU to work on the Comprehensive Phytopathogen Genomics Resource project under the advisement of Jan Leach, Ned Tisserat, and Robin Buell (Michigan

State University), where I focused on developing comparative genomics-based diagnostic tools to rapidly and accurately identify *X. oryzae* pv. *oryzae* and *X. oryzae* pv. *oryzicola*, two of the most important bacterial pathogens of rice. Next, I became a senior scientist at Solix Biosystems, working on optimizing algae-based biofuels and bioproducts. Most recently, I returned to CSU to manage Leach's research group and complete my Ph.D. degree in the cell and molecular biology program. My research involves characterizing the role of two cosmopolitan transcription factors in plant defense response and cell wall biosynthesis, as well as continued advancement of innovative molecular diagnostics.



**Meirav
Leibman-Markus**
Tel Aviv University
Israel

I was born and raised in Tel-Aviv, Israel. After a two-year military service and a year of back-packing through South and Central America, I began my B.Sc. studies at the Faculty of Life Sciences, Tel-Aviv University and graduated cum-laude in 2009. My master studies were at the Department of Molecular Biology and Ecology of Plants, Faculty of Life Sciences, Tel-Aviv University, under the supervision of Adi Avni. Avni's laboratory studies plant-pathogen interaction using LeEIX2 receptor as a model system. LeEIX2 is an LRR-RLP that triggers plant defense responses upon elicitation with a fungal

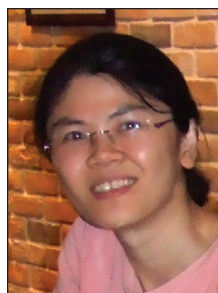
protein termed EIX. During my M.Sc. work, I isolated EHD2 interacting proteins and tested their effect on LeEIX2/EIX induction of defense responses. By 2011, I started working toward my Ph.D. degree in the same laboratory. I'm currently investigating aspects of endosomal signaling LeEIX2. We have recently demonstrated the involvement of endosomal signaling in the EIX mediated induction of defense responses, indicating that the receptor signals from within endosomes. In order to identify cellular signaling components involved in the induction of innate immunity, I have isolated LeEIX complexes in vivo and use proteomic approaches to identify LeEIX interacting proteins before and after application of EIX.



Mauricio Lozano
CONICET-UNLP
Argentina

Mauricio J. Lozano was born in 1979 and grew up in Bahía Blanca, Argentina. He attended the Universidad Nacional de La Plata and obtained his Ph.D. (Doctorado de la Facultad de Ciencias Exactas) degree at the same university. During his Ph.D. studies under the direction of A. Lagares, he developed a novel positive selection cassette for RIVET (Recombination Based in vivo Expression Technology) systems for the identification of genes induced during the *S. meliloti-Medicago* spp. symbiosis. The RIVET technology is based on the creation of a library of trans-

criptional fusions of (differentially induced) promoters to TnpR (Tn gamma delta site-specific recombinase). When a promoter is induced, TnpR is expressed and a selectable marker cassette becomes excised, activating the reporter system. In the post-doc period, he further modified the system to simplify the construction of the library of transcriptional fusions by means of a mini-Tn5 derived RIVET transposon. In 2013, he obtained a research position at the CONICET (National Scientific and Technical Research Council). His current interest are focused on understanding the very early events that occur during the rhizobium-legume symbiosis and that ultimately lead to the competition for the colonization of the root, access to the infection threads, nodule formation, and finally, nitrogen fixation.



Lay-Sun Ma
Institute of Plant and
Microbial Biology
Taiwan

I am from Malaysia, currently holding a post-doctoral fellow in the Institute of Plant and Microbial Biology, Academia Sinica, Taiwan. I received my bachelor and master degrees from St. Cloud State University, United States. I was a research technician in the Animal Science Department, University of Minnesota, studying the bovine hepatic gene expression during lactation. Later, I moved back to Malaysia and spent 3-4 years on the Malaysia Oil Palm Board to work on gene expression profiling of embryonic tissue culture in oil palm. In 2006, I decided to attend the graduate program in Taiwan. I joined Erh-

Min Lai's research group in 2007 to study the type VI secretion system (T6SS) in *Agrobacterium tumefaciens*. My graduate work focused on dissecting the role of T6SS core component IcmF-family protein TssM in machinery assembly. I graduated in 2011 and received a short-term research funding from the Initiative Research Cooperation among top universities between the United Kingdom and Taiwan, Taiwan National Science Council. I investigated the biological role of T6SS in bacterial competition between *Agrobacterium* and *Pseudomonas aeruginosa* and identified three pairs of toxin-antitoxin encoded in *Agrobacterium* T6SS gene cluster. I also discovered a wide-spread novel superfamily of DNase effectors that plays a major role in bacterial competition in planta.



Sheri McClerklin
Washington University
in St. Louis
U.S.A.

Currently I am a graduate student in the Plant Microbial Biosciences program at Washington University in Saint Louis. I am a member of the lab of Barbara Kunkel, whose focus is to understand the molecular mechanisms governing plant and pathogen interactions. My research interests include understanding the molecular mechanisms of the effector protein, AvrRpt2. AvrRpt2 is characterized as a cysteine protease and has been shown to modulate host auxin biology and increase *Pseudomonas syringae* pv. *tomato* DC3000 virulence in plants lacking the R protein RPS2. I am interested in under-

standing the role of the cysteine protease activity in both these virulence functions and identifying host targets of AvrRpt2. Additionally, I am interested in elucidating the auxin biosynthesis pathway in DC3000. It is well known that plants like *Arabidopsis thaliana* synthesize the hormone auxin and that microbes have the same ability. It, however, is unknown what pathway(s) DC3000 utilizes to synthesize auxin and whether pathogen-derived auxin contributes to its virulence.



César Medina
Universidad de los
Andes
Colombia

I am a Ph.D. student in biological sciences from the Universidad de los Andes, Bogotá Colombia. I work in the effector biology of type III effectors (T3Es) focus in the pathosystem *Xanthomonas axonopodis* pv. *manihotis* and cassava, and my work is coordinated by Adriana Bernal. My interests include elucidate the role of T3Es in *X. axonopodis* pv. *manihotis*, however, I am interested in find the interactors to T3Es, gene regulation network in bacterial-plant pathogenesis, TAL effectors, and CRISPR/CAS9 systems. Finally, I am doing my internship in the Labotiore Résistance des Plantes aux Bioagresseurs at IRD in Montpellier, France.



Jimi Miller
Yale University
U.S.A.

I am from the United States of America. I am currently a second-year graduate student at Yale University in Nicole Clay's lab working on G protein signaling in innate immunity. My research interests are studying the immune signaling pathway from the plasma membrane to the downstream signaling cascades. Moreover, I am interested in researching the immune responses to powdery mildews.



Jacqueline Monaghan
The Sainsbury
Laboratory
United Kingdom

I am a molecular biologist and geneticist interested in understanding the signaling events that follow plant immune receptor activation resulting in disease resistance. I studied undergraduate biology at the University of Toronto and obtained my Ph.D. degree from the University of British Columbia (Canada). I have since been a post-doctoral researcher in the group of Cyril Zipfel at The Sainsbury Laboratory in Norwich, United Kingdom. Here, I designed and performed a novel forward-genetics screen in an immune-deficient mutant background and identified several loci as negative regulators of immunity.



Jason Noon
Iowa State University
U.S.A.

I am a third-year Ph.D. student majoring in interdepartmental genetics at Iowa State University (ISU) in the Department of Plant Pathology and Microbiology. I was born and raised in Iowa, United States, and received my bachelor of science degree in genetics from ISU. My research subject lies within the realm of molecular-plant microbe interactions. More specifically, I am currently studying the interactions between plant-parasitic nematodes and their plant hosts, in particular the soybean cyst nematode and soybean, an interaction of great importance for the world's economy. These parasites secrete effector proteins into host plant tissues and cells to subvert plant defenses and/or to enable the formation of elaborate feeding sites for nourishment throughout their complex life cycles. Understanding both the functions of the secreted nematode effectors and the novel signaling events that underlie the formation of these feeding sites will likely lead to novel nematode control measures. My long-term research goals are to reveal vulnerable points in the interactions of devastating plant pathogens and their hosts, e.g., pathways that are essential for forming parasite feeding structures that may ultimately be targeted for engineering durable, synthetic forms of resistance in the host plants, and to uncover novel mechanisms used by plant pathogens for subverting plant defenses.



**Alvaro Pérez
Quintero**
Université
Montpellier 2
France

I'm currently a Ph.D. student at the Université Montpellier 2, and I'm doing my thesis at the Institut de Recherche pour le Développement (IRD) in Montpellier, France, under the direction of Boris Szurek and Sebastien Cunnac. Originally, I'm from Colombia, where I did my previous studies (B.Sc. in biology and M.Sc. in biology-genetics). In my previous lab, I studied the role of microRNAs in plant-pathogen interactions, working on predicting a role for microRNAs in antiviral defense in various plants, and studied microRNAs from cassava and their role in the interaction with *Xanthomonas axonopodis* pv. *manihotis*. My current research group is trying to understand the mechanisms of the disease caused by African varieties of *Xanthomonas* in African crops. For my Ph.D. thesis, I am studying the role of a particular set of proteins from these strains: TAL effectors. This is a follow-up on the work I did as an M.Sc. student, where I developed software that was able to predict binding sites in plant genomes for these proteins with more accuracy than other strategies, and this allowed us to identify new candidates for susceptibility genes in the rice-*Xanthomonas* system. We are now trying to continue this work with a systems-biology approach, reconstructing a "network" of bacterial TAL proteins and plant target genes, and how these interactions evolve.



Clemencia Rojas
The Samuel Roberts
Noble Foundation
U.S.A.

Clemencia M. Rojas was born in Bogota, Colombia, and obtained a bachelor's degree in microbiology from Universidad de los Andes in Bogota. After graduation, she worked at the International Center for Tropical Agriculture (CIAT) in Cali, Colombia, characterizing the genetic diversity of the rice blast fungus *Magnaporthe oryzae*. She continued that work at Purdue University while obtaining a master's degree in genetics. She obtained her Ph.D. degree in plant pathology from Cornell University, studying the type III secretion system and a novel adhesion in the bacterial pathogen *Erwinia chrysanthemi* (*Dickeya dadantii*). For the past six years, she has been working at the Samuel Roberts Noble Foundation, identifying plant genes involved in nonhost disease resistance, initially as post-doctoral fellow and now as research scientist. Her research interest focuses on understanding the function of vesicle trafficking and signaling during plant immunity.



Isabel ML Saur
The Australian
National University
Australia

I received my engineering degree/B.Sc. from the Esslingen University, Germany. The research-based thesis required for the completion of this degree focused on CLE peptides involved in the autoregulation of nodulation in *Medicago truncatula*. This research was conducted under the supervision of Nijat Imin at the Australian National University in Canberra, Australia, in 2010. Since joining John Rathjen's group, also at the Australian National University, in 2011 as a Ph.D. candidate, I have focused on the structure and function of the Pto/Prf tomato resistance protein complex. Additionally, I have biochemically identified a novel PRR recognizing the bacterial cold shock protein during an EMBO short-term fellowship in Cyril Zipfel's group at The Sainsbury Laboratory, United Kingdom, in 2013. I am continuing to work on the functional characterization of this novel receptor with the aim to submit my Ph.D. thesis in February 2015.



Kinga Sedzielewska
University of
Munich (LMU)
Germany

I come from the wonderful land of Poland. In 2007, I received a master of science in biotechnology degree from the Wroclaw University of Technology (Poland). Subsequently, I obtained an EU Leonardo da Vinci scholarship, which gave me the opportunity to work on arbuscular mycorrhizal fungi (AMF) at the Leibniz Institute of Plant Genetics (IPK) in Gatersleben (Germany). I found the genetics of the AMF very exciting and decided to continue my work at the IPK with these fascinating organisms through my Ph.D. studies. During this time, I precisely estimated the genome size of a model AM fungus, which has aided subsequent genome sequencing efforts. In 2012, I received my Ph.D. degree from the University of Greifswald (Germany).

Recently, I started post-doctoral research at the Ludwig-Maximilians University of Munich (LMU, Germany), investigating the AMF effectome under the direction of Martin Parniske and Andreas Brachmann. I aim to determine the role of AMF effectors during the establishment of the plant-fungus symbiosis. Based on evolutionary arguments, I postulate that the most conserved effector candidates have a fundamental role in the AMF-plant interaction; thus, they are of high priority for my ongoing functional experimental studies.



Irene Serrano Valdivia
Indiana University
U.S.A.

I received my degree in biology from the University of Jaén (Jaén, Spain) in 2004. One year later, I started my Ph.D. work in the Estación Experimental del Zaidín (Granada, Spain), obtaining my doctorate in 2010 by the University of Granada (Granada, Spain). My Ph.D. work focused on programmed cell death (PCD) associated with pollen-pistil interactions in olive tree (*Olea europaea* L.). After completing my Ph.D. degree, I moved to the laboratory of Roger Innes at Indiana University in Bloomington, IN (United States) to continue with my PCD studies. PCD induced by self-incompatibility and manifested in pollen-pistil interactions is conceptually similar to PCD induced in host-pathogen interactions by "incompatible" pathogens. My research as a post-doctoral fellow in the Innes lab has focused on identification and characterization of substrates of the *Arabidopsis* protein kinase EDR1. Currently, I am focusing on two newly identified substrates, MYC2 and ATL1. In the course of characterizing the interactions between EDR1 and these substrates, I identified the putative phosphorylation motif targeted by EDR1. Most significant is how phosphorylation of ATL1 by EDR1 potentially controls its E3 ubiquitin ligase activity, providing an example of direct regulation of an E3 ubiquitin ligase by phosphorylation.



Justine Sucher
University of Zurich
Switzerland

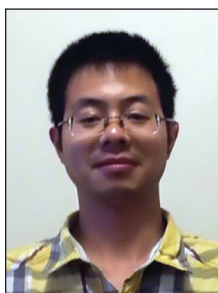
I am currently in my second year of Ph.D. work at the University of Zurich, in Beat Keller's laboratory. I am working on the Lr34 project, which is a wheat gene providing durable and broad-spectrum disease resistance. I am from France and did my master degree work at the University Paul Sabatier in Toulouse, which gave me the opportunity to do two different internships. The first one was in CSIRO (Canberra, Australia), where I worked in Evans Lagudah's group on the Lr67 wheat gene and the second one was in John Innes Centre (Norwich, United Kingdom) on Graham Moore's team, where I was involved on the Gametocidal project. I always have been interested in disease resistance mechanisms, plant-pathogen interactions. Reducing crops yield losses is a really important challenge for our society and having better understanding of this is important.



Chika Tateda
University of
Chicago
U.S.A.

Originally from Japan, I graduated from Akita Prefectural University in Japan with a B.S. degree in 2005, and received a Ph.D. degree in life science from Tohoku University in Japan in 2010. Currently, I am a post-doctoral scholar in the laboratory of Jean Greenberg at The University of Chicago. I joined Greenberg's lab as post-doctoral fellow, supported by the Japan Society for the Promotion of Science (JSPS Research Fellow and JSPS Postdoctoral Fellow for Research Abroad) from April 2010 to March 2013. The research that I will be presenting here focuses on the role of

salicylic acid (SA) in inducing several PAMP receptor-mediated signaling processes at multiple levels, including receptor-like kinases abundance and callose deposition, in the absence of PAMPs. This gives new insights into the understanding of plant immunity, specifically the roles of SA in enhancing resistance against a wide variety of pathogens. My future research interests are focused on the regulation of plant defense systems with natural products, which can be widely applicable to agriculture.



Li Wan
University of
Queensland
Australia

Li Wan is currently pursuing his Ph.D. degree in structural biology with Bostjan Kobe at the University of Queensland, Australia. His research aims to understand the molecular basis of plant innate immunity system using X-ray crystallography. So far, he has successfully determined crystal structures of two proteins, which contribute to the understanding of resistance protein signaling and effector protein function respectively.



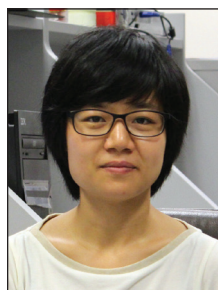
Yiming Wang
Max Planck Institute
for Plant Breeding
Research
Germany

I come from the People's Republic of China and received my Ph.D. degree in South Korea in the field of rice-rice blast fungus interaction. Currently, I am a post-doc (Humboldt-Bayer Research fellow) in Max Planck Institute for Plant Breeding Research with research interest in the apoplastic interaction between *Arabidopsis* and *Pseudomonas syringae*.



Koste Yadeta
University of
California, Davis
U.S.A.

I am currently a post-doctoral scholar in the Coaker lab, plant pathology at the University of California, Davis. My main research interest is investigating the role of the *Arabidopsis* CRKs (cysteine-rich receptor-like kinases), RLK subfamily, which dynamically changes during activation of plant immune responses. I am also involved in a quantitative proteomics to investigate changes in the plasma membrane proteome during defense signaling. My country of origin is Ethiopia.

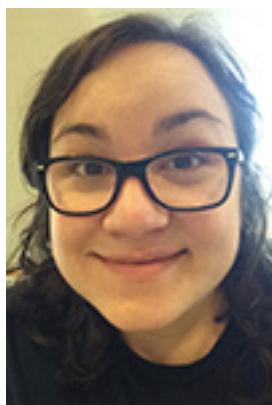


Xuan Zeng
Temasek Life
Sciences Laboratory
Singapore

I am currently a graduate student enrolled in the National University of Singapore. I am interested in understanding the mechanism of plant resistance toward pathogens, especially the role and mechanism of programmed cell death in immune response. My country of origin is China.

2014 Travel Awardee Addendum

(Funds provided by recently approved USDA grant)



Carina Collins
University of
Missouri
U.S.A.

I am a fourth year biochemistry graduate student from the University of Missouri, U.S.A., working on a collaborative research project with Antje Heese and Scott Peck. My research is broadly focused on understanding how vesicular trafficking regulates innate immune signaling in plants. My project aims to elucidate the role of a particular *Arabidopsis* ENTH protein in flg22-induced signaling events. ENTH proteins function at the trans-golgi network (TGN) and participate in several vesicular trafficking routes throughout the plant cell. We have identified a particular ENTH protein that is phosphorylated in response to the elicitor flg22, and shown that mutants without it have reduced flg22-induced signaling responses. My current work is focused on determining how an internal vesicular trafficking

protein affects signaling events from the plasma membrane.



Max Fishman
Cornell
University
U.S.A.

I am currently pursuing a Ph.D. in plant pathology and plant-microbe biology from Cornell University under the mentorship of Melanie Filatrault. I grew up and currently reside in the United States of America. My research interests include understanding gene regulation involved in plant-pathogen interactions and determining which genes help pathogens evade MAMP-triggered immunity.



Beth Dalsing
University of
Wisconsin
U.S.A.

I am a plant pathology graduate student in the Microbiology Doctoral Training Program at the University of Wisconsin-Madison. I am a member of Caitlyn Allen's lab and my current research focus is on the inorganic nitrogen metabolism of *Ralstonia solanacearum* during plant infection. As an undergraduate at the University of Illinois, I worked on the impact of nutrition on gut microbe composition and later on the dynamics of lake water microbial sub-populations. Ultimately, I am interested in combining my interests to pursue a research career in dissecting the metabolic networks of microbiomes and developing related applications.



Rosa Gil
University of
California
U.S.A.

I am a Ph.D. candidate in the Michelmore lab doing research at the Genome Center, University of California-Davis. I earned my Bachelor's degree in Biology at the National University of Colombia. During that time, I worked on protein interactions in cassava – *Xanthomonas axonopodis pv manihotis* (*Xam*). I participated in research leading to the first report of a TALE effector in *Xam*. I currently work on functional genomics of *Bremia lactucae*. In my work, I am analyzing the genomes of over 40 different isolates, using RNAseq to characterize compatible and incompatible interactions and genetic segregation analysis to find causal genes underlying the *B. Lactucae* - Lettuce interaction.



Carola De La Torre Cuba
University of
Missouri
U.S.A.

I am currently pursuing Ph.D. studies in Plant, Insect and Microbial Sciences at University of Missouri-Columbia, U.S.A. My research interests include understanding how cytokinins, phytohormones notably known for their role in plant development, can also have a role in plant-nematode interactions. My system of study comprises the plant species *Arabidopsis thaliana* and the nematodes species *Heterodera schachtii* and *Meloidogyne incognita*. I was born in Lima, Peru and hold a BS degree in Biology from La Molina National Agrarian University and a MSc degree in Plant Pathology from The Ohio State University.



Lin Jin
The Ohio State
University
U.S.A.

My research mainly deals with plant-bacterial pathogen interaction. More specifically, the *Arabidopsis-Pseudomonas syringae*, and *Zea mays-Pantoea stewartii* interaction systems. My research focuses on the conserved AvrE-family type-III effector proteins that are deployed by both pathogens despite their host differences. These effectors are crucial for the virulence of the deploying bacteria, yet their mode of actions remain enigmatic. We're interested in finding their host target protein(s), and validating the role of target protein(s) in the virulence function of the effectors.



Panya Kim
University of
Nebraska
U.S.A.

I am second year graduate student in Dr. Alfano's research group at the University of Nebraska. I am from South Korea. My research focuses on the study of type III effectors from the bacterial plant pathogen *Pseudomonas syringae*. Specifically, I am interested in the function of T3SS effector proteins that are injected into plant cells and their plant targets. I have had a long-standing interest in agriculture, particularly in the area of molecular plant-microbe interactions.



Allison Schwartz
University of
California
U.S.A.

I am a third year graduate student in the University of California-Berkeley laboratory of Brian Staskawicz. My first introduction to molecular plant-microbe interactions was as an undergraduate at the UC-Los Angeles, where I studied in the laboratory of Ann Hirsch. My Ph.D. research interests include the Type III effector repertoires of diverse *Xanthomonas* pathogens of pepper and tomato, and the contributions of specific effectors to host specificity within the Solanaceae. I am also studying the molecular basis of lesion development in *Xanthomonas gardneri*-induced bacterial spot disease on tomato using a Transcription Activator Like (TAL) Effector that is directly responsible for the appearance of "water soaked" symptoms.



Joanna Kud
University
of Idaho
U.S.A.

I am a third year Ph.D. student and research assistant in the Plant Science Program at the University of Idaho, U.S.A. Originally from Poland, I obtained a M.Sc. degree in Biotechnology, specializing in immunology. I was an active member of the Academic Students' Society of Biotechnology (ASSB) and the Young European Bio-tech Network (YEBN), where I served as a staff writer for the editorial board of YEBN Newsletter. After graduation, I joined the plant molecular biology research team at the University of Idaho to continue my scientific development as a Ph.D. student. My main research focuses on the elucidation of mechanisms by which the Prf tomato resistance (R) protein manipulates transcription factors for defense signal transduction.



Adam Steinbrenner
University of
California
U.S.A.

I am a graduate student in the Department of Plant and Microbial Biology at University of California, Berkeley. I received his B.S. degree from Tufts University, where I studied three-way metabolic interactions between tomato, *Pseudomonas syringae*, and the herbivorous caterpillar *Manduca sexta*. I became interested in NBS-LRR-mediated resistance in the lab of Greg Martin during a summer internship at the Boyce Thompson Institute at Cornell University. I currently work on the molecular mechanisms of NBS-LRR receptor recognition, activation, and signaling in the lab of Brian Staskawicz.



Derek Lundberg
University of
North Carolina
U.S.A.

I received my Ph.D. in March 2014 in Jeff Dangl's lab at the University of North Carolina at Chapel Hill, investigating factors that influence the composition of the *Arabidopsis* root microbiome. The research has involved both natural soils and gnotobiotic systems inoculated with cocktails of bacterial strains isolated from root samples. This research involved considerable methods development, by growing plants and processing the samples and increasing the quality and efficiency of high-throughput sequencing methods to count and quantify microbes. Immediately following this MPMI Congress I am moving to Germany, to pursue a postdoc with Detlef Weigel at the Max Planck Institute. There I will begin to study the interaction of wild *Arabidopsis* with its foliar microbiome, with an



Katalin Toth
University of
Missouri
U.S.A.

emphasis on finding host genes that affect the distribution of common fungal, oomycete, and bacterial pathogens in the natural range.

Currently I work as Postdoctoral Research Associate in the Legume Microbe Interactions Laboratory lead by Dr. Gary Stacey at the University of Missouri-Columbia. My research interest focuses on the nitrogen-fixing legume-rhizobia symbiosis. A phosphoproteomic study was performed in our laboratory to gain deeper insight into the early events of the symbiotic interaction of soybean with its symbiont, *Bradyrhizobium japonicum*. In this study, we found proteins known to be involved in plant immunity. Based on these results, I am focusing on what role plant immunity plays in legume rhizobia symbiosis. Furthermore, we also further explore the role of certain kinases that were found to be significantly phosphorylated in response to *B. japonicum*.

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