

IS-MPMI 2016 XVII International Congress  
Portland, Oregon  
July 17-21, 2016



## AWARDS BROCHURE

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## 2016 IS-MPMI Awardee



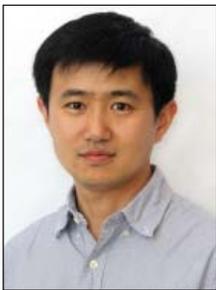
Sharon Long  
Stanford University  
United States

Sharon Long is Professor of Biology at Stanford University. She received her Bachelor's degree from the California Institute of Technology, and carried out her Ph.D. studies at Yale University, studying plant development with Ian Sussex. As a postdoctoral fellow she trained with Fred Ausubel at Harvard, where she began her work on Rhizobium-legume symbiosis. She joined the Stanford faculty in 1982. She was appointed an Investigator of the Howard Hughes Medical Institute from 1994 to 2001, stepping out of that position to serve Stanford as Dean of the School of Humanities and Sciences from 2001-2007. She returned to regular faculty research and teaching in autumn 2007. Her research group employs a spectrum of approaches, including microbial and plant molecular biology, biochemistry and genetics, to study the symbiosis of Rhizobium bacteria and plant hosts. They are especially interested in the signals and signal transduction pathways used by nitrogen-fixing bacteria and plants.

### Award Presentation

Opening Ceremony & Keynote Award • Sunday, July 17 • 3:00-4:30 p.m.  
“Bacterial Cell Dynamics and Molecular Differentiation in Symbiosis”

## 2016 Young Investigator Awardee



Dong Wang  
University of  
MassachusettsAmherst  
United States

Dong Wang received his Ph.D. training with Dr. Xinnian Dong at Duke University, and conducted postdoctoral research with Dr. Shaon Long at Stanford University. Currently he is a faculty member at the University of Massachusetts Amherst, where he studies the symbiotic interactions between plants and beneficial microbes.

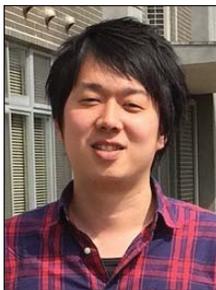
### Award Presentation

Plenary Session 4 • Tuesday, July 19 • 8:10-9:50 a.m.  
“Specialised Protein Secretion in Plant-Microbe Symbioses”



*Thank you to BASF  
for sponsoring this  
year's award.*

## 2016 XVII International Congress Ko Shimamoto Travel Awards



**Hiroaki Adachi**  
Nagoya University  
Japan

I am a third-year PhD student in Prof. Hirofumi Yoshioka's group at Nagoya University, Japan. I am interested in plant immune signaling, especially in effector-triggered immunity. My main project is to reveal molecular mechanisms of MAPK cascade-mediated signaling, using a model Solanaceae plant *Nicotiana benthamiana* and oomycete pathogen *Phytophthora infestans*. I identified multiple WRKY transcription factors as substrates of MAPKs and reported that MAPK-WRKY pathway induces effector-triggered ROS production via transactivation of RBOH gene. I have now paid attention to transcriptional reprogramming for ROS accumulation and HR cell death induction downstream of MAPK-WRKY pathway.



**Akira Akamatsu**  
John Innes Centre  
United Kingdom

I was a PhD student in Ko Shimamoto's lab from 2009 to 2013 in Japan. My PhD research had focused on ROP GTPase signaling during chitin perception in rice. After earning a PhD degree, I have joined Giles Oldroyd's lab at John Innes centre (UK) as a post-doctoral fellow, supported by the Japan Society for the Promotion of Science (JSPS) Postdoctoral Fellow for Research Abroad, to work on Nod Factor signaling during rhizobial infection to legume plants. In particular, my research has focused on ROP GTPase signalling in Nod Factor signalling. I trust that the new knowledges in genetics, physiology, phylogenomics and biochemistry from the both immune and symbiosis field in MPMI will give a lot of idea to develop my research.



**Kwasi Adusei-Fosu**  
Nottingham University  
United Kingdom

I am a Ghanaian. I completed my BSc. Agriculture in the University of Cape Coast- Ghana. I followed up with my Master's Degree in Plant Biotechnology and Mutation Breeding in the University of Ghana-Graduate School of Nuclear and Allied Sciences. During my master's degree, I was concurrently employed in the Biotechnology and Nuclear Agriculture Research Institute (BNARI) of the Ghana Atomic Energy Commission (GAEC) as a Trainee Scientist. Upon completing my master's degree, I joined the Council for Scientific and Industrial Research (CSIR) – Ghana, as a Research Scientist. I am in my Third year in Nottingham University-United Kingdom, School of Biosciences undertaking

my PhD research in Molecular Plant Pathology. My research is focused on improving the molecular detection and control of *Fusarium oxysporum* f.sp. *elaedis*. This research seeks to develop a faster detection and diagnosis of *Fusarium oxysporum* f.sp. *elaedis* assay with the Loop Mediated Isothermal Amplification (LAMP) technique and quantification of the pathogen in the host via Real Time PCR (qPCR).



**Gazala Ameen**  
North Dakota State University  
United States

I was born and brought up in India. Currently I am a PhD student in Dr. Robert Brueggeman's Lab in Department of Plant Pathology at North Dakota State University. My research work is focused on barley- *Cochliobolus sativus* pathosystem. I came to the USA five years ago, to pursue Master's program on applied research in fungicide efficacy to control *Sclerotinia* stem rot. Around the end of my master's research, a class taught by my current advisor Dr. Robert Brueggeman on host pathogen interactions, which is fairly new aspect of science and certainly interesting and fascinating for me. The transition from applied to molecular research was challenging. In my current research, we functionally validated a Wall associated Kinase (WAK), gene as a host dominant susceptibility gene, *Rcs5* in barley- *C. sativus* pathosystem. As the role of WAKs as necrotrophic susceptibility factor and how it triggers host susceptibility has not been well studied, there is vast information yet to be discovered and therefore questions for me will keep on changing and that is what keeps it interesting. Personally, I love to dance and explore wildlife.



**Beverly Agtuca**  
University of Missouri,  
Columbia  
United States

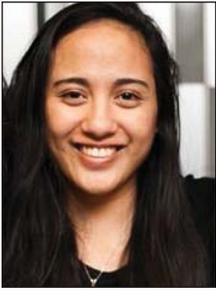
I was born in Queens, New York and grew up at Holbrook, Long Island, New York. For my bachelor's degree, I went to State University of New York College of Environmental Science and Forestry at Syracuse. I am a 2nd year graduate student pursuing a Ph.D. in Plant, Insect and Microbial Sciences with a focus of Plant Breeding, Genetics and Genomics at the University of Missouri-Columbia. As a graduate research assistant in the Legume-Microbe Interactions Laboratory lead by Dr. Gary Stacey, my research interest is on the symbiotic interaction of nitrogen-fixing bacteria in legumes/non-legumes. I am working on a collaborative research project that focuses on identifying unique, metabolic biomarkers associated with nitrogen

fixation using Laser Ablation – Electrospray Ionization Mass Spectrometry (LAESI-MS). This LAESI-MS method holds tremendous potential for use in further studies of plant-microbe interactions, as well as other plant processes.



**Brenden Barco**  
Yale University  
United States

I am a third-year American graduate student at Yale University in the lab of Nicole Clay. Prior to graduate school, I received my B.S. in Biology at Duke University and worked at several industries in the Research Triangle area, including BASF Plant Science. My research focuses on how transcription factors regulate secondary metabolism in response to microbial pathogens. Additional goals that I have include searching for roles of secondary metabolites in host defensive signaling processes and studying the mechanisms underlying biosynthetic gene evolution to better understand why secondary metabolic pathways are often so clade-specific.



**Teura Barff**  
**Université de**  
**Sherbrooke**  
**Canada**

I am originally from Tahiti, a small Island in the middle of the Pacific Ocean belonging to French Polynesia. To pursue my career in research, I moved to Canada where I earned my B.Sc. degree in biology, with a specialization in microbiology at the Université de Sherbrooke. Currently, I am a master's student in the laboratory of Peter Moffett at the Université de Sherbrooke where we mostly work on RNA silencing and the plant innate immune system, using viral and bacterial pathogens. My research focuses on studying genes that are translationally regulated upon NB-LRR activation, and on their involvement in basal and/or NB-LRR-mediated resistance. To elucidate the roles of these candidate genes, I am working with different types of pathogen,

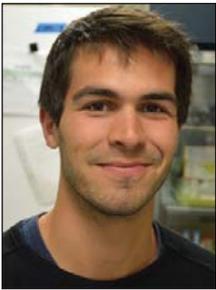
including *Pseudomonas syringae* pv tomato (Pto) DC 3000, Plantago asiatica mosaic virus (PLAMV) and *Hyaloperonospora arabidopsidis* (Hpa). Another aspect of my research project focus on how their translation is regulated by NB-LRR signaling, and future studies will concentrate on how their protein products contribute to plant defenses.



**Maryn Carlson**  
**Cornell University**  
**United States**

I am currently completing my master's degree at Cornell University with Dr. Christine Smart, working on the genetics of *Phytophthora capsici*, the devastating pathogen that causes *Phytophthora* blight on many important vegetable crops. My research focuses on elucidating the genetic dynamics of a biparental, experimental field population of *P. capsici* using genomic, single-nucleotide polymorphism data. My interests span from disentangling the complex population biology of *P. capsici* in the context of this closed system, to identifying regions subject to mitotic variation. I also work on dissecting the genetic basis of sex determination in *P. capsici*. First-hand experience with plant disease while working on vegetable farms in Massachusetts and New York, and a fascination with the microbes that cause disease, initially motivated my decision to study Plant Pathology. Moving forward, I seek to interface next-generation sequencing techniques and computational tools with statistical genetics to understand pathogen evolution.

on vegetable farms in Massachusetts and New York, and a fascination with the microbes that cause disease, initially motivated my decision to study Plant Pathology. Moving forward, I seek to interface next-generation sequencing techniques and computational tools with statistical genetics to understand pathogen evolution.



**Maël Baudin**  
**University of California,**  
**Berkeley**  
**United States**

I did my bachelor's and master's degrees in France in the field of plant-microbe interactions. My PhD focused on root nodule symbiosis and was conducted in the Laboratory of Plant-Microbe Interactions in Toulouse (France). In October 2014, I joined the group of Jennifer Lewis in the Plant & Microbial Biology department of UC Berkeley (USA) as a postdoc. My current work consists of the characterization of ZAR1-mediated immunity against the bacterial pathogen *P. syringae*, using biochemical approaches to dissect the molecular interactions and conformational changes in ZAR1 protein complexes.



**Meltem Cavdar**  
**RWTH Aachen**  
**University**  
**Germany**

I am doing my doctorate in the Unit of Plant Molecular Cell Biology of Prof. Dr. Ralph Panstruga at the RWTH University in Aachen (Germany) since 2012. My work and research interests focus on plant-microbe interactions at the molecular level and deal particularly with the early immune response of plants upon biotic stress coming from bacteria, fungi and other pathogens. One of my PhD projects involves the influence of the bacterial pathogen *Pseudomonas syringae* on MAMP-triggered calcium influx in *Arabidopsis thaliana*. I am born and have grown up in Germany, but my parents are originally from Turkey.



**Ana Bossa-Castro**  
**Colorado State**  
**University**  
**United States**

I am originally from Colombia and I am currently a PhD student in Plant Pathology at Colorado State University. I did my bachelor's degree in biology at the Universidad Nacional de Colombia. For my bachelor's thesis, I studied the protein-protein interactions related to defense responses to cassava bacterial blight. After this, I worked as a research assistant, for more than two years, at the International Center for Tropical Agriculture (CIAT) in the Biotechnology Research Unit. There I worked in the development of new rice hybrids and the implementation of sequencing technologies for agricultural advancement purposes. I was a visiting scholar in the laboratory of Dr. S. Dellaporta at Yale University. My PhD research project is

aimed at identifying regions in the rice genome that confer resistance to *Xanthomonas oryzae* pv. *oryzae* and *X. oryzae* pv. *oryzicola*, causal agents of bacterial blight and bacterial leaf streak in rice. We are interested in African strains of these pathogens for which sources of resistance are lacking. My main goal is to contribute to the development of rice cultivars with durable resistance to pathogens.



**Hao-Xun Chang**  
**University of Illinois,**  
**Urbana-Champaign**  
**United States**

I completed my undergraduate at National Taiwan University with a major in plant pathology and microbiology before I joined Dr. Glen Hartman in the Department of Crop Sciences at University of Illinois. My Ph.D. researches focused on big data analyses, including (i) RNA-Seq and bioinformatics to discover phytoalexins of sudden death syndrome (SDS) pathogen *Fusarium virguliforme*, (ii) genome-wide association study (GWAS) to identify single nucleotide polymorphism (SNP) associated with soybean disease resistance, and (iii) metagenomics to understand taxonomic difference between soil samples. I'm currently a Postdoc with Dr. Hartman, and I'm working on understanding the phytotoxicity mechanism of FvNIS1 for SDS

foliar symptoms, finding the soybean receptor for FvNIS1, and screening for SDS resistance in soybean germ plasm.



**David Cook**  
Wageningen University  
Netherlands

I am currently conducting research at Wageningen University in The Netherlands, funded through a personal postdoctoral fellowship with the Human Frontiers in Science Program. My research is conducted in the lab of Prof. Bart Thomma, where I am studying how DNA and histone methylation affect fungal virulence. More generally, I am interested in the massive transcriptional re-programming that takes place during any given plant-invader interaction, and I am interested in understanding the mechanisms that facilitate these responses and their adaptation. This work has led me from studying plant-nematode interactions during my PhD

research at the University of Wisconsin-Madison in Andrew Bent's lab, to studying chromatin-dynamics during fungal infection. My goal is to start my own research group studying (1) chromatin dynamics during plant-microbe interactions; (2) the evolution and inheritance of epigenetic modifications in fungi; (3) the relationship between chromatin and genome architecture.



**Laura Fleites**  
University of Florida  
United States

I am originally from Miami, Florida. I am now in the final stages of earning my Ph.D in Plant Pathology at the University of Florida under the supervision of Dean Gabriel. My research has been focused on *Candidatus Liberibacter asiaticus*, the causal agent of the devastating citrus disease Huanglongbing. I have worked on the functional characterization of several genes either on the bacterial chromosome or encoded by the associated bacteriophage, including bacteriophage encoded cell lysis proteins, a secreted peroxidase that has the capacity to dampen the plant defense response, and a chromosomal transcription factor that recognizes a bacteriophage promoter, with ultimate the aim of devising disease control methods or aiding in culturing efforts. Studying the interplay between the host plant or the insect vector, the bacterium, and the associated bacteriophage has fostered a keen interest in host-microbe(-viral) interactions, one which I plan to pursue as a post-doctoral researcher and beyond.



**Kevin Cope**  
University of Wisconsin, Madison  
United States

Kevin R. Cope is a Ph.D. candidate in the lab of Dr. Jean-Michel Ané at the University of Wisconsin-Madison in the Cellular and Molecular Biology Program. Previously, he earned a dual Bachelor of Science degree in Plant Science and Biology from Utah State University with a minor in Crop Biotechnology. After entering graduate school at UW-Madison, Kevin was awarded a NSF Graduate Research Fellowship that is funding him while he conducts research on the molecular mechanisms regulating the establishment and maintenance of the symbiotic associations of mycorrhizal fungi with poplar trees. Kevin is particularly interested in common molecular mechanisms within plants that allow them to recognize multiple types of beneficial

plant-associated microbes. Upon earning his Ph.D., Kevin hopes to pursue a career in academia as a professor with a lab focused on integrating crop biotechnology and plant-microbe interactions to solve problems related to crop production.



**Jose Fonseca**  
Noble Foundation  
United States

I'm currently a Postdoc at Noble foundation working at Dr. Kiran Mysore (kmysore@noble.org) laboratory in a project to identify/characterize novel plant genes involved in nonhost disease resistance using VIGS-mediated forward genetics screening. I am from Brazil where I got my master's and PhD degrees in Molecular Biology and Genetics from the Campinas state university. Although I have previous experience working with plant-microbe interactions in my first postdoc position at Duke University (2010-2013) I am relatively new to the field and in my previous position (Federal University of Rio de Janeiro, Brazil) I was working with monolognol biosynthesis genes for biofuel production as well as metagenomics analysis of rhizosphere microbiome samples from the Amazon forest.



**Gayani Ekanayake**  
University of Missouri  
United States

I am a second year Biochemistry graduate student from the University of Missouri, USA, working in the lab of Antje Heese. I am originally from Sri Lanka. The primary focus of my research understands how vesicular trafficking proteins regulate plant innate immune signaling. Specifically, I am working on elucidating the functional roles of the dynamin-related protein network in innate immunity against bacteria.



**Barbara Franco**  
James Hutton Institute  
United Kingdom

I'm Barbara Franco, a third year PhD student at the James Hutton Institute, Scotland. I was born in Medellin, Colombia. I have always been fascinated with the area of molecular plant pathology and have been rewarded with the opportunity to study different microorganisms of high economic importance in Colombia and worldwide, like the devastating potato crop pathogens *Phytophthora infestans* and *Spongopora subterranea*. As a PhD student, my research concerns the study of the ascomycete pathogen *Rhynchosporium commune*, the causal agent of scald, one of the most destructive diseases of barley. During the characterization of the genes involved in pathogenicity I have identified Rc1, a novel PAMP that is recognised by dicots, and therefore is a valuable resource to engineering non-host resistance in monocots.



**Julie Gervais**  
INRA  
France

I am a second year PhD student at the INRA BIOGER institute, in France. After a master's degree in plant science, I dived into the universe of micro-organism/plant interactions. Currently, I am working on a fungal pathogen of oilseed rape, *Leptosphaeria maculans*, which is responsible for the stem canker disease. I am aiming to gain a better understanding of the molecular interactions between the pathogen and its host during the systemic colonization of oilseed rape. I am particularly focused on the identification of new effectors produced by the fungus enabling it to colonize efficiently the plant. The identification of those effectors would contribute to the understanding of the adult stage resistant observed in some cultivars of oilseed rape.



**Alex Greenspan**  
University of  
California, Davis  
United States

Alex Greenspan is a PhD candidate in Plant Pathology at the University of California, Davis. Alex's research focuses on the genomic diversity of nitrogen-fixing bacterial symbionts of the crop chickpea, and how the crop's history and domestication has impacted the biogeography of its bacterial associates. Alex is from the United States, but his research has brought him to four continents and he will be spending the last year of his PhD in India.



**Mrunmay  
Kumar Giri**  
University of  
North Texas  
United States

I am Mrunmay Kumar Giri, a citizen of India and now working as postdoctoral research fellow in the Department of Biological Sciences and the BioDiscovery Institute, University of North Texas, USA. I received my Ph.D. from Jawaharlal Nehru University, one of the most reputed universities in India. Over the last few years, I have gained good understanding on various aspects of plant pathogen interaction. From the beginning of my Ph.D. career, I always had a keen desire to explore more about the molecular mechanisms of plant defense signaling. Our lab has established a signaling function for the abietane diterpenoid, dehydroabietinal (DA) in activating SAR in plants. Our recent results show the involvement of a P450 cytochrome oxidase in DA accumulation and the activation of SAR

in *Arabidopsis*. In the coming days, I would like to understand more about DA biosynthesis in *Arabidopsis* and how it is transported and metabolized to activate SAR in plants.



**Susanna Harris**  
University of North  
Carolina, Chapel Hill  
United States

I am a graduate student from the United States currently working in the labs of Dr. Jeffery Dangl and Dr. Elizabeth Shank at the University of North Carolina, Chapel Hill. My project focuses on understanding how mixed bacterial species modulate their behaviors within the *Arabidopsis thaliana* root microbiome and how these changes affect the host.



**Bruna Goncalves  
Coutinho**  
University of  
Washington  
United States

I am originally from Rio de Janeiro, Brazil, but I am currently a post-doc in the Greenberg Lab at the University of Washington in Seattle, USA. My PhD studies were performed in V. Venturi's Lab at the International Centre for Genetic Engineering and Biotechnology in Trieste, Italy, where I studied the importance of quorum-sensing in plant-bacteria interaction and the regulatory changes an endophyte undergoes in response to plant molecules. In E. P. Greenberg's Lab, I have been working on a specific signaling mechanism that mediates both pathogenic and beneficial plant-bacteria interactions. I believe that studying plant-bacteria signaling mechanisms could contribute to the development of better strategies for crop disease management, tailored biological control and the resourceful use of biofertilizers.



**Volker Hegenauer**  
University of Tuebingen  
Germany

I studied Biochemistry at the University of Ulm. Since January 2015 I am a PhD student at the ZMBP of the University of Tuebingen. My research focuses on defense responses of cultivated tomato against the holoparasitic, leaf- and rootless plant *Cuscuta reflexa* (dodder). Although *Cuscuta* is not a microbe, tomato defense responses show parallels to such known for MAMP-triggered immunity (MTI). My topic deals with the receptor-based recognition of *Cuscuta* and the recognized Parasite-associated molecular pattern. This means a lot of *Cuscuta* extract purification, mass spectrometry and chemical as well as biological characterization of defense-triggering, parasitic molecules.



**Matthew Helm**  
Indiana University  
United States

I am currently a third-year Ph.D. student in the laboratory of Roger Innes at Indiana University in Bloomington, IN (United States). Our lab has recently reported a novel approach for expanding the recognition specificity of an Arabidopsis resistance protein. This strategy is based on our observation that changing the proteolytic cleavage site in a protease-targeted host protein from Arabidopsis, named PBS1, expands the specificity of the host immune response, thereby conferring resistance to a wide-spectra of pathogens. Significantly, this system enables us to confer genetically determined disease resistance to pathogens for which we currently lack durable forms of resistance. I am broadly interested in

exploiting and modifying the endogenous plant immune response system such that we can confer sustainable resistance to a wide-spectra of pathogens. Genetically determined disease resistance is the most cost effective and environmentally safe approach to protecting crops from disease. Using such genetic-based approaches can significantly reduce our dependence on pesticide application, mitigating the environmental impact of industrial farming.



**Sarah Hind**  
Boyce Thompson  
Institute  
United States

I am a postdoctoral associate in the laboratory of Dr. Gregory Martin at the Boyce Thompson Institute in Ithaca, New York, USA. The focus of my research is on the identification of plant proteins involved in the perception of microbial pathogens of tomato, and recently I identified and characterized the second flagellin receptor found in tomato and related solanaceous plants. The ultimate goal of my research is to improve upon the natural resistance of crop plants in order to reduce our dependency on pesticides and to improve crop yields, thereby contributing to more sustainable agricultural systems.



**Steen Hoyer**  
Donald Danforth Plant  
Science Center and  
Washington University  
United States

I am from southeastern Pennsylvania, USA, where I studied biology and chemistry at Swarthmore College. There I became interested in how viruses suppress RNA silencing and how this disrupts microRNA action, leading to developmental defects. I joined the lab of James C. Carrington at Oregon State University, and then transferred to Washington University in St. Louis when the lab moved to the Donald Danforth Plant Science Center. I am now finishing my dissertation research on regulation of timing and polarity in Arabidopsis thaliana by a group of microRNA-transcription factor-ARGONAUTE circuits. I am seeking postdoctoral opportunities to work on interaction the plant immune system with both beneficial and pathogenic bacteria and viruses.



**Shuai Huang**  
University of  
British Columbia  
Canada

I grew up in Xianghe, a small town near the capital city Beijing in China. I am currently completing my Ph.D. degree under the supervision of Dr. Xin Li at the University of British Columbia, Canada. I am interested in understanding the molecular mechanisms that plants deploy to defend against plant pathogens. My Ph.D. projects focus on using forward genetics and chemical genetics to isolate regulators in NLR-mediated immunity in Arabidopsis thaliana. One of my projects centers on the characterization of two redundant Tumor necrosis factor receptor-associated factor (TRAF) domain proteins in the regulation of NLR protein turnover.



**Carol Ibe**  
University of  
Cambridge  
United Kingdom

I am originally from Nigeria and completed my undergraduate degree in microbiology there. I became inspired to find effective and more practical solutions to food insecurity in sub-Saharan Africa. I received the prestigious Gates Cambridge scholarship to do a PhD in Plant Sciences under Dr. Uta Paszkowski's supervision at the University of Cambridge, UK. My PhD research aims to determine the common accommodation mechanisms for both beneficial and detrimental fungi in rice, and how these interactions may be enhanced for practical agricultural applications. I obtained master's degrees from Georgetown University and the University of Oxford, and have recently founded a not-for-profit organization (JR Biotek Foundation) I am deeply

honored to be a recipient of the XVII International Congress on MPMI Travel Award, a unique award that presents an excellent platform for me to connect with and learn from leading scientists, fellow students and research professionals from across the globe.



**Sergey Ivanov**  
Boyce Thompson  
Institute  
United States

My scientific interests focus on the cell biology of plant-symbiotic microbe interactions. I obtained my M.Sc. at RAS Institute of Biochemistry and Physiology of Microorganisms in Puschino State University, Russia, where I completed my thesis in the Laboratory of Molecular Microbiology on the multiprotein complex of exopolysaccharide biosynthesis of nitrogen-fixing bacteria Rhizobium leguminosarum. I obtained my Ph.D. in the laboratory of Dr. Ton Bisseling at Wageningen University where I studied the role of vesicle associated membrane proteins (VAMPs) during rhizobium and arbuscular mycorrhiza symbioses (Ivanov et al., 2012). At present I am a postdoctoral researcher in Dr. Maria J. Harrison's laboratory

at Boyce Thompson Institute, where I continue to explore my interests in cell biology during symbiosis. Here I created the set of fluorescent protein-based markers which helped to unravel new features in cell biology of arbuscular mycorrhiza symbiosis (Ivanov and Harrison, 2014). My current focus is polyphosphoinositides and their role during arbuscular mycorrhiza symbiosis.



**Anna Joe**  
University of  
California, Davis  
United States

I am from South Korea and came to United States of America after I finished my master degree in plant physiology. I received my Ph.D. in the Alfano lab at the University of Nebraska-Lincoln, studying *Pseudomonas syringae* Type III effectors and their targets in plants. I am currently a post-doctoral scholar in the Ronald Lab, University of California Davis. My research aims to understand the interaction between *Xanthomonas oryzae* pv. *oryzae* and rice. I specially focus on the small sulfated peptide called RaxX from *Xanthomonas* which is recognized by the Xa21 immune receptor on rice.



**Arun Kumar**  
University of  
Wisconsin, Madison  
United States

Arun Kumar joined as a Research Associate (October 2015) on a collaborative research project with Shelley Jansky, Dennis Halterman, and Doug Rouse at the University of Wisconsin-Madison, USA. Kumar is investigating the activity of genes associated with resistance to *Verticillium* wilt in potato using real-time quantitative PCR and comparative structure-function analysis of gene sequences to define the role of genes in resistance or susceptibility. Prior to moving to Madison, he worked in the research group of Prof. AC Kushalappa as a Postdoctoral Fellow (September 2013-August 2015) in the Department of Plant Science, McGill University, Montreal, Canada. There, he exploited an integrated metabolomics and functional genomics

approach to understand resistance mechanisms in barley against *Fusarium* head blight. His doctoral research focused on “Bioprospecting thermostable superoxide dismutase from the flora of western Himalayas”. His interests and long term goals are to understand the mechanisms of genetic resistance at the molecular and biochemical levels and incorporate this information into improved breeding program strategies.



**Ryan Kessens**  
University of  
Wisconsin, Madison  
United States

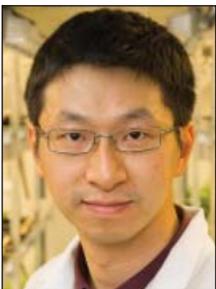
I am a PhD candidate in the Cellular and Molecular Biology program at the University of Wisconsin – Madison. The broad goal of my research is to shed light on the molecular mechanisms by which programmed cell death occurs in plants and the role of programmed cell death in response to abiotic and biotic stresses. Outside of my own research, I am particularly interested in mutualistic plant-microbe interactions such as those that rely on rhizobia and mycorrhizae.



**Thomas Liebrand**  
University of California  
United States

I am a post-doctoral researcher in the laboratory of Prof. Gitta Coaker at the department of Plant Pathology of UC Davis (California, USA). My current project is a phosphoproteomics-based study aiming to identify protein phosphorylation events upon activation of immune signaling by the *Arabidopsis thaliana* NLR-type immune receptor RPS2. I identified several phosphorylation events occurring within the first hours after RPS2-activation. I am fascinated by how the plant innate immune system works on a biochemical level. I obtained a PhD degree in molecular phytopathology at the Laboratory of Phytopathology of Wageningen University in The Netherlands, my home country. Under

supervision of Dr. Matthieu Joosten, I investigated immune signaling mediated by tomato Cf proteins. My research led to new insights into how Cf proteins activate cellular immune signaling after recognition of the fungal pathogen.



**Jixiang Kong**  
Gregor Mendel  
Institute  
Austria

Originally I am from China but now I am a postdoc from Youssef Belkhadir’s lab at GMI, Austria. I became interested in the trade-off between plant development and defenses after my Ph.D research in plant developmental genetics. My current projects focus on plant growth and defense tradeoffs with a great emphasis placed on cell surface receptors and brassinosteroid signaling. I am trying to understand plant development processes in the context of environmental cues and how plants respond to environmental changes.



**Chenglong Liu**  
Texas A&M University  
United States

I am currently a fourth-year Ph.D. candidate in the Department of Plant Pathology and Microbiology at Texas A&M University. I am working in the lab of Libo Shan, whose research interest is to understand the biochemical and molecular mechanisms underlying the dynamic plant-microbe interactions, and the signaling crosstalk that orchestrates plant responses to diverse extrinsic and intrinsic signals. I am particularly interested in the molecular communication between *Pseudomonas syringae* and *Arabidopsis thaliana*. My project focuses on exploring additional PTI/ETI signaling components and deciphering their functions. My long-term research interests involve using a combination of genomic and phenomic

approaches to engineer sustainable broad-spectrum disease resistance in crops. I come from China, a country with a population of over 1.38 billion. It is important for me that my study could aid agriculture and global food security.



**Xiaoyu Liu**  
University of Alabama,  
Birmingham  
United States

I am a PhD candidate in the Department of Biology at University of Alabama at Birmingham. I became interested in plant-microbe interaction in the group of Dr. Frederic Brunner during an internship at the Center for Plant Molecular Biology (ZMBP) at University of Tuebingen. After graduation from Capital Normal University with a B.S. degree, I joined the laboratory of Dr. Karolina Mukhtar to investigate the function of GCN2 kinase in plant immunity using the *Arabidopsis thaliana*-*Pseudomonas syringae* pathosystem. We have successfully demonstrated that AtGCN2 is involved in immune signaling pathways mediated by different phytohormones. Currently, I am investigating the molecular mechanism underlying the involvement of AtGCN2 kinase in immune response during the pre-invasive and post-invasive stage of an infection event.



**Tiffany Lowe-Power**  
University of  
Wisconsin, Madison  
United States

Tiffany Lowe received a B.S. in Biology at the Georgia Institute of Technology. During her undergraduate studies, she explored microbiology research in several labs where she worked on isolating iron-reducing bacteria from soil, population genetics of *Vibrio parahaemolyticus*, and genetics of *Myxococcus xanthus*. Tiffany is working towards a PhD in Microbiology in Caitilyn Allen's lab at the University of Wisconsin-Madison. At UW-Madison, Tiffany has researched how metabolism contributes to virulence of the bacterial wilt pathogen *Ralstonia solanacearum*. She has found that *R. solanacearum*'s ability to degrade plant defense chemicals (hydroxycinnamic acids and salicylic acid) contribute to virulence on tomato and tobacco plants. Tiffany's current project investigates metabolomic changes to xylem sap during *R. solanacearum* infection.



**Fabien Lonjon**  
INRA  
France

I come from France. I obtained a Master diploma in Microbiology from the University Paul Sabatier (Toulouse, France). During this period I did 7 months internship in the LIPM (Laboratory of Plant-Microbe Interactions) in Toulouse, in the Stéphane Genin's group. The project was about the characterization of HpaP, a protein involved in the secretion of type III effectors in *R. solanacearum*. I'm currently a 2nd year PhD student (French Ministry of Higher Education and Research fellowship) in this same group under the supervision of Fabienne Vailleau. My research focuses on the characterization of *R. solanacearum* proteins that control the secretion of type III effectors and the role of some of these effectors in plants.



**Yan Ma**  
The Sainsbury  
Laboratory  
United Kingdom

I am a final year PhD student in the group of Jonathan Jones in The Sainsbury Laboratory in sunny Norwich (UK). I am interested in molecular mechanisms, and currently solving part of the puzzle of effector recognition and paired plant disease resistance protein activation. I am originally from China, and studied as an undergraduate in Manchester (UK).



**Sebastián López-Fernández**  
Fondazione  
Edmund Mach  
Italy

Currently I am a PhD student at the Technische Universität Braunschweig in Germany and a scholarship holder from Fondazione Edmund Mach in Italy. I have been developing my PhD thesis under the supervision of Doctors Andrea Campisano and Barbara Schulz. I recently joined the group "microbial drugs" with the advisory of Dr. Marc Stadler in the Helmholtz centre for infection research. The aim of my doctoral thesis is to contribute to the understanding of the interactions of endophytic microorganisms isolated from grapevine. My research interests are ecology of infectious diseases, biotechnological applications of microbes and their products, virulence in bacteria, quorum sensing and applied ecology. I'm originally from Bogotá, Colombia where I got a bachelor's degree in biology and a master's degree in microbiology, where I worked with quorum sensing and pathogenicity mechanisms of gram negative bacteria involved in respiratory infections.



**Ka-Wai Ma**  
University of California  
United States

Originally from Hong Kong, I received my Ph.D. degree in the department of plant pathology from the University of California Riverside, USA. As a microbiologist and plant pathologist, I am interested in understanding how pathogens use different strategies to cause diseases. Type III secreted effector produced by Gram negative bacteria is one of the best studied virulence factors. During my Ph.D, I characterized the *Pseudomonas syringae* produced effector HopZ1a. HopZ1a functions as a non-canonical acetyltransferase and represents a group of animal and plant pathogens produced effectors known as the YopJ family. Since then, I have been a post-doctoral researcher in Dr. Wenbo Ma's lab. Using pathological and structural approaches, I identify a novel biochemical mechanism used by HopZ1a to function as acetyltransferase and provide clues to the evolution origin of this group of unique enzymes.



**Paolo Margaria**  
 Pennsylvania State  
 University  
 United States

I earned my B.S. degree in Plant Biotechnology at the University of Torino (Italy, my country of origin), with an experimental thesis at the Plant Virology Institute (CNR) where I explored molecular interactions between Tomato spotted wilt virus and resistant pepper. I received a Ph.D. degree in Plant Sciences from the same University, with an international visiting scholar experience at University of California-Davis, working on the development of new diagnostic tools for detection of phytoplasmas and viruses in grapevine. Next, I explored phytoplasma-grapevine interactions using Omics approaches, and continued my research on tospoviruses focusing on the characterization of new isolates/species and on virus/vector interactions. I am currently a post-

doctoral fellow in the Department of Plant Pathology and Environmental Microbiology at Pennsylvania State University with Dr. Cristina Rosa. My research deals with Ourmiavirus, a recently characterized genus that is of intriguing interest given its possible origin by reassortment between a plant virus and a mycovirus. Specifically, I'm focusing on the characterization of the viral movement protein and of its interactions with plant proteins and cytoskeleton using molecular and cellular biology approaches. I'm also pursuing my long-term interest in tospoviruses using bioinformatics for characterization of smallRNA profiles and viral populations.



**Alfredo Mari**  
 Max Planck Institute  
 for Plant Breeding  
 Research  
 Germany

Alfredo comes from Pisa, Italy. During universities studies he got interested in plant microbe interactions, working on mycorrhizal fungi in *Lotus japonicus* for both bachelor and master thesis, at Bonfante's lab in Turin, Italy. After accomplishing his studies at University of Pisa and at the same time in Scuola Superiore Sant'Anna, he moved to Germany in order to start a PhD project in Eric Kemen's group at Max Planck Institute for Plant breeding research, Cologne. His main focus now is to dissect the eukaryote leaf microbial network using both wet-lab and computational techniques.



**Margarita Marroquin-Guzman**  
 University of Nebraska,  
 Lincoln  
 United States

From Cali, Colombia, Margarita Marroquin-Guzman is a third-year PhD student in the Department of Plant Pathology at the University of Nebraska-Lincoln (UNL). She is a member of Dr. Richard Wilson's lab, where the focus is to elucidate the molecular mechanisms underlying *Magnaporthe oryzae*-rice interaction. Margarita's thesis aims to understand how nutrient availability and usage facilitates in planta development and rapid host colonization by the rice blast fungus *M. oryzae*. Specifically, she is working with GATA transcription factors and their role in pathogenicity. The results obtained during her research project will potentially lead to the development of novel crop protection strategies targeting molecular pathways. Her interest for microbe-host interactions and plant

pathology began at the International Center for Tropical Agriculture (CIAT). There she worked as a research assistant in the cassava and tropical fruit programs. Margarita joined Wilson's lab as a PhD student in 2013, after completing her MSc. in Crop Protection at the University of Puerto Rico-Mayaguez.



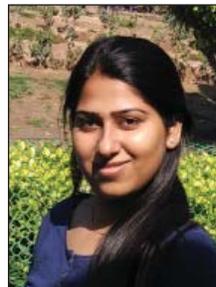
**Kaitlin McNally**  
 University of Zurich  
 Switzerland

Currently I am pursuing my PhD in Science and Policy at the Institute of Plant and Microbial Biology at the University of Zurich, where I study powdery mildew resistance of wheat. Over the past 4 years we have worked to characterize the complex genetics of avirulence in wheat powdery mildew, clone the first avirulence effector in this species, and study its evolution, global diversity, and physical structure. Topics in international agriculture have been the main subject of my research focus. I have studied several areas of agricultural biotechnology including *Ac/Ds* tagging mutagenesis, integrated pest management, and i resistance to biotic and abiotic stresses in several crop species including maize, soybean, cotton, peanut, and wheat. I am originally from the US where I owe many thanks to my teachers and collaborators at the University of Georgia, The Boyce Thompson Institute and Cornell for giving me the opportunity to experience and share in their research pursuits.



**Marco Mechan**  
 Llontop  
 Virginia Polytechnic  
 Institute and  
 State University  
 United States

I am originally from the North of Peru. After earning my bachelor's degree in Biology back in my home country I was fortunate to collaborate with Dr. Vinatzer from Virginia Tech. Currently, I am a first year PhD student in Dr. Boris Vinatzer's laboratory at the Plant Pathology department. My research thesis is focused on the analysis of the bacterial structure of the rain microbiome and how it influences the tomato leaf microbiome. More generally, I am interested in revealing the source of the plant leaf microbiome, its role in plant immunity and how plant immunity may play a role in the establishment of specific bacterial communities.



**Samriti Midha**  
 CSIR-Institute of  
 Microbial Technology  
 India

I am a fifth-year Ph.D. student at CSIR-Institute of Microbial Technology, Chandigarh, India. My area of interest and specialization is bacterial genomics and evolution. I am working on understanding the origin and evolution of diverse *Xanthomonas* species and pathovars based on genes/genomic sequences. We are specifically focusing on the phylogeny and evolution of various pathogenicity associated genes and gene clusters of highly devastating pathogens *X. citri*, infecting diverse fruit crops and *X. oryzae*, a serious pathogen of rice. Besides, we have also explored and generated a genomic resource comprising of different bacterial species associated with rice.



**Fernanda Raquel  
Rezende de Castro  
Moretti**  
Universidade de Sao  
Paulo, Brazil and The  
Ohio State University  
United States

I'm currently a Ph.D. student pursuing a dual degree on plant cellular and molecular biology (Universidade de Sao Paulo, Brazil), and translational plant sciences (The Ohio State University, United States). My research on the interaction between sugarcane and the causal agent of ratoon stunting disease, *Leifsonia xyli* subsp. *xyli*, uses a metabolomics approach and is an extension of the studies that I developed during my masters on plant pathology. This bacterium is devastating to sugarcane, a crop with an important economic impact since it is not only the main source of sugar but also a dedicated bioenergy crop in Brazil. The main issue about this pathogenic system is related to its detection. Indeed, the bacterium is very difficult to isolate, its dispersion inside the plant is not homogenous and the symptoms are only evident after the second harvest, when great loss is inevitable. The

main goal of my work is to identify differentially synthesized metabolites by the host due to infection, and to establish biomarker(s) that will permit a quick detection of plants with high susceptibility. After obtaining my Ph.D., I plan to pursue a position in a research institute either in Brazil or abroad.



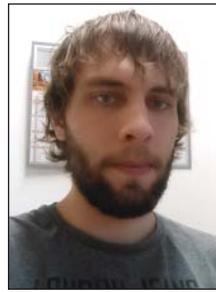
**Mina Ohtsu**  
Nagoya University  
Japan

I am a third-year Ph.D. student in Tetsuya Higashiyama's group at the Institute of Transformative bio-Molecule in Nagoya University, Japan. During master course (in 2011-2013), I studied about roles of nuclear pore complex in plant immunity. In 2014, I moved to the current lab. Now, I am studying plant-plant parasitic nematode interaction and interested in infection strategy of cyst nematode.



**Onur Oztas**  
University of  
Massachusetts Amherst  
United States

Currently I am working towards my PhD in the Biochemistry and Molecular Biology Department of University of Massachusetts in Amherst. My research interest centers on the symbiosis between legumes and rhizobia soil bacteria for nitrogen fixation. I am particularly interested in characterizing the host proteins, playing critical roles in the development of this symbiotic interaction and how these proteins are delivered specifically to host-microbe interface.



**Yohann Petit**  
National Institute for  
Agronomical Research  
France

I am currently in my second year of thesis in the French National Institute of Agronomical Research, and I'm working on the functional characterization of some fungal virulence factors. During plant infection, pathogens secrete an arsenal of effectors, key elements of pathogenesis which modulate innate immunity of the plant and facilitate infection. Fungal effector genes typically encode small proteins, predicted to be secreted (SSPs, Small Secreted Proteins), with no homology in databases, and absence of known motif. As such, their function or role in pathogenesis is mostly unknown. The phytopathogenic ascomycete *Leptosphaeria maculans* is the causal agent of stem canker of oilseed rape. More than 650 putative effector-encoding

genes have been identified in its genome, 10 of them having been demonstrated as being effectors. The objective of my PhD project is to elucidate the involvement of *L. maculans* effectors into pathogenicity through their structural and functional characterization and identification of their interactants. This characterization includes determination of subcellular localisation of those effectors, search for plant targets and identification of cellular processes targeted.



**Priya Pimprikar**  
Ludwig Maximilian  
University of Munich  
Germany

I come from India. I received my first masters of science in biotechnology at Institute of Bioinformatics and Biotechnology (IBB), India. I decided to accomplish a second master's degree in Applied Botany at the Indian Institute of Technology Kharagpur (IIT KGP). I carried out my master thesis project at the Technical University of Munich (TUM), in Germany. This gave me the great opportunity to work on the exciting topic "Ovule development" in Arabidopsis in the lab of Kay Schneitz. I decided to perform my PhD in Arbuscular Mycorrhiza Symbiosis, which improves mineral nutrition of plants. Currently, I am in the fourth year of my doctoral program at Ludwig Maximilians University of Munich (LMU), Germany under the guidance of

Dr. Caroline Gutjahr. I recently showed at the molecular level how plants may integrate symbiotic and hormonal signalling to control arbuscular mycorrhiza development.



**Sowmya  
Ramachandran**  
Washington State  
University  
United States

I hail from India. Currently I am a PhD student in the Department of Plant Pathology at Washington State University working under the mentorship of Dr. Scot Hulbert.

I work on host-pathogen interactions at the protein and RNA level, involving wheat rust pathogens and cereal crops. My research aims at identifying effector proteins secreted by the fungus for inciting disease on wheat. In addition, I am looking at the role of wheat miRNAs in the *Puccinia striiformis* – wheat pathosystem, in an attempt to understand the small RNA-mediated defense responses to rust infections. Before joining WSU, I received my Master's in Microbiology, from University of Delhi, India, where I studied fungal lipases and their various industrial applications. After receiving a National award

for research and teaching, I gained experience in research at the Ambedkar Centre for Biomedical Research, India, as also in teaching microbiology as a guest faculty at University of Delhi.



Jeannette Rapicavoli  
University of  
California, Riverside  
United States

I am a native of the San Francisco Bay Area in California. In 2011, I graduated with honors from California Polytechnic State University, San Luis Obispo with a Bachelor of Science in Environmental Horticultural Science and a minor in Plant Protection Science. Currently, I am a Ph.D. Candidate in Plant Pathology at the University of California, Riverside where I work under the supervision of Dr. Caroline Roper. My research focuses on the molecular basis of the host-pathogen interactions of *Xylella fastidiosa*, an important xylem-dwelling bacterial pathogen of grapevine and citrus. My focus has been on biochemical and structural characterization of the major bacterial cell surface polysaccharide, lipopolysaccharide, and elucidating its functions as an elicitor of immune responses in grapevine.



Benjamin  
Schwessinger  
Australian National  
University  
Australia

Benjamin is an independent early career research fellow working in the laboratory of Prof. John Rathjen at the Australian National University, Canberra. Among others, Benjamin is involved in improving genome assemblies for the wheat stripe rust fungus *Puccinia striiformis* f. sp. *tritici*. He also aims to develop a genetic transformation and mutation system for this fungus. Benjamin is originally from Germany and worked previously in the UK, Japan, and USA.



Robyn Roberts  
University of  
Wisconsin, Madison  
United States

Robyn Roberts is currently a Ph.D. student in the Plant Pathology department at the University of Wisconsin-Madison (USA) with plans to graduate in the summer of 2016. In Aurélie Rakotondrafara's lab, Robyn is studying the translation mechanisms of a potyvirus, *Triticum mosaic virus*, and its interactions with its host translation factors. Her overall research interests include viral replication, plant-microbe interactions, and host defense.



Aldo Seguel  
Pontificia Universidad  
Católica de Chile  
Chile

I am a Chilean Ph.D. student just about to graduate at the Pontificia Universidad Católica de Chile and work in plant defense response in the group of Dr. Loreto Holuigue. I also made part of my Ph. D thesis in the laboratory of Dr. Jean Greenberg, at the University of Chicago. My main interests of study are the plant-pathogen interactions and how these organisms co-evolve to attack and defend from each other, especially from the plant point of view. I'm particularly interested in the Salicylic Acid (SA)-mediated defense response. SA is a key hormone that regulates plant immunity to biotrophic pathogens and so far, it is not totally known how this hormone is produced in plants. In my Ph.D. project I focused on the SA biosynthesis in *Arabidopsis thaliana*, and based on what have been seen in other organisms, capable to produce SA, we tried to find what other factors, besides ICS1 (the enzyme responsible for the first step of SA biosynthesis) could be involved in this process.



Joren Jeico Cruz  
Salazar  
California State  
University, Bakersfield  
United States

I am an undergraduate student at California State University, Bakersfield perusing a bachelor of science degree in biochemistry. I have been working in the lab of Isolde Francis for a year where we have been investigating the induction of the toxin inducing sugar, cellobiose, in plant pathogenic *Streptomyces*. Our goal is to understand the molecular interactions between plant pathogenic *Streptomyces* and plant hosts that influence the production of thaxtomin A, a phytotoxin that inhibits cellulose synthesis and promotes plant cell hypertrophy and cell death.



Joji Grace  
Sernestrand  
Forschungszentrum  
Juelich  
Germany

Joji Grace Sernestrand has travelled far in pursuit of science. Originally from northern Philippines, she moved to Taiwan for her M.Sc. studies in Molecular Biology before joining the plant chemetics lab at the Max Planck Institute for Plant Breeding Research in Cologne, Germany for her PhD on plant biology/immunity and protein biochemistry. She recently joined the protease degradomics lab at Juelich Forschungszentrum in Juelich, Germany as a postdoc and expands her work on proteolytic protein modifications in plant immunity.



**Teja Shidore**  
Connecticut  
Agricultural  
Experiment Station  
United States

I am from Pune, India and I did my Masters in Biochemistry and Molecular biology from University of Bremen, Germany. I completed my graduate studies at the same University from the Department of Microbe-Plant interactions, where using transcriptomic and functional analysis, I worked on investigating bacterial factors involved in establishment of an endophytic interaction between *Azoarcus* sp. strain 72 and rice. Currently, I work as a Postdoctoral research associate at the Department of Plant Pathology and Ecology at The Connecticut Agricultural Experiment Station, New Haven, CT. My project involves understanding the virulence strategies of bacterial pathogens with a focus on AvrRxo1, a type III secreted effector (T3E) of several bacterial plant pathogens. I am working towards

identifying the molecular target and mechanism of action of this effector which is toxic to bacteria, yeast and plants and it also triggers a hypersensitive response in presence of the resistance protein Rxo1. I wish to establish my own research directions in the future focusing on deciphering underlying mechanisms of pathogenic interactions.



**Martin Stegmann**  
The Sainsbury  
Laboratory  
United Kingdom

I was born in Germany and currently I am a PostDoc at the Sainsbury Laboratory (Norwich, UK) in the lab of Prof Cyril Zipfel. Here, I mainly study the antagonistic interplay of a family of small secreted peptides in the regulation of PAMP-triggered immune signalling via the receptor kinase FERONIA. Before that, I studied as an undergraduate student the impact of Sphingolipids on the *Arabidopsis thaliana* – *Pseudomonas syringae* interaction at the University of Wuerzburg (Germany) in the lab of Professor Martin Mueller. After that I did my PhD at the University of Wuerzburg and the Leibniz Institute of Plant biochemistry (Halle, Germany) in the lab of Marco Trujillo, where I analysed the mechanism of the E3-Ubiquitin

ligase PUB22 in downregulating PAMP-triggered immune signalling.



**Tongjun Sun**  
University of  
British Columbia  
Canada

I am currently a Ph.D. student under the supervision of Dr. Yuelin Zhang at the University of British Columbia (Canada). Recognition of pathogens by host plants leads to rapid transcriptional reprogramming and activation of defence responses. Previously we showed that two transcription factors SARD1 and CBP60g function as master regulators of plant immune responses. Interestingly, the expression of those two TFs is induced following pathogen infection. I am currently studying transcriptional regulation of SARD1 and CBP60g using both forward and reverse genetic approaches. My country of origin is China.



**Marcella Alves  
Teixeira**  
University of  
California, Riverside  
United States

I am a graduate student from Brazil in Isgouhi Kaloshian's lab at University of California, Riverside. The focus of my research is to characterize PAMP-triggered immunity against the root-knot nematode *Meloidogyne incognita* during early steps of their interaction. My research interest is to understand and characterize durable resistance against parasites aiming at the development of effective and environmentally friendly control strategies in crops. I am constantly amazed at interactions between plants and animal parasites/pests and the defense (or attack)-driven evolution that both undergo.



**Jessie Uehling**  
Duke University  
United States

I am currently a Durhamite by way of Arcata, CA and originally from Boise, ID, USA. Much of my youth was spent in Idaho's forests, an experience that ignited my fascination with plant ecosystem biology. I've continued to honor this innate curiosity by pursuing a career in plant and microbial sciences. I just finished my fourth year as a PhD candidate in the Program for Genetics & Genomics at Duke University in Durham, North Carolina. I am broadly interested in how plant-microbial symbioses are initiated, maintained, and evolve over time. My training in Botany and Mycology began at Humboldt State University with Dr. Terry Henkel. There, my Master's research was focused systematics and

molecular ecology of tropical ectomycorrhizal fungi. More specifically I was documenting, describing, and characterizing new species of ectomycorrhizal fungi in the genus *Clavulina* (Basidiomycota, Cantharellales) associated with *Dicymbe corymbosa* (Fabaceae, Caesalpinioideae) from Guyana. In 2012 I joined the lab group of Dr. Rytas Vilgalys at Duke University where I am actively learning how fungi and bacteria in the soil interact and what implications these processes have for plant health. We have discovered and described a long-term obligate endosymbiotic bacterium living inside the cells of plant-associated fungi. Using a variety of genomics approaches we have deduced that this interaction is ancient, involves trophic and signaling exchanges, has important implications for the physiological health, and partially strongly effects genome content for both organisms.



Hester van Schalkwyk  
University of the Free State  
South Africa

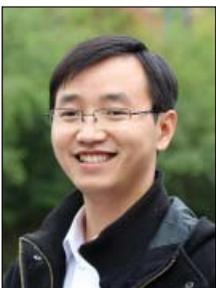
Hester van Schalkwyk is a PhD student at the University of the Free State (UFS), South Africa (RSA). Her supervisors are Drs Renée Prins (UFS, RSA), Diane Saunders (The Genome Analysis Centre & The John Innes Centre, United Kingdom), and Lesley Boyd (National Institute of Agricultural Botany, United Kingdom) and Prof Zak Pretorius (UFS, RSA). She is currently in the final year of her PhD which forms part of the BBSRC Special Initiative SCPRID project: Implementing effective marker technologies into disease resistance wheat breeding programmes within Africa. Her research interests include host-pathogen interactions, bioinformatics and molecular genetics. For her current project she is analysing genomic and transcriptomic data of yellow/

stripe rust of wheat and complementing that with molecular genetics and pathological approaches. This fungal disease causes major yield losses in wheat breeding areas across the world. The first detection of stripe rust in South Africa was only in 1996 and since then only three more virulence types were observed. This raises interesting genetic questions about the development and spread of the disease in South Africa. Her research aims to contextualize the South African populations in the global view of stripe rust, to improve the understanding of the molecular mechanisms of the fungus on effector protein level and to use this information to develop practical applications for the agricultural industry.



Chih-Hang Wu  
The Sainsbury Laboratory  
United Kingdom

I am from Taiwan, and I received my bachelor's and master's degrees from National Taiwan University. After being a research assistant for few years in Academia Sinica, Taiwan, and National Taiwan University, I joined Sophien Kamoun's group at The Sainsbury Laboratory, Norwich, UK, as a Ph.D. student. I am interested in the mechanisms by which plant immune receptors recognizing pathogens and providing disease resistance. Currently, my research is about a complex NLR immune receptor network in which a group of helper NLR proteins are functionally redundant but display distinct specificities towards different sensor NLR proteins that mediate disease resistance to various pathogens of solanaceous plants.



Wenjun Xie  
University of Copenhagen  
Denmark

I am a fourth-year PhD student from department of plant and environmental sciences (PLEN) in University of Copenhagen. My undergraduate and master's were in China Agricultural University (CAU), major in plant genetics and breeding, working on identifying new mechanisms involved in maize heterosis and meiosis. Currently my PhD research aims to identify new components involved in plant defence signaling network and understand how they work. So far, I have successfully confirmed several novel proteins contribute to defence in Arabidopsis by forward and reverse genetic ways, which play complicated roles inside the cell. These discoveries will rewrite our knowledge about the defence signaling transduction, lipid transport, mechanism of Programed cell death (PCD) in cell biology.



Li Zhang  
Michigan State University  
United States

The overall goal of my thesis research is to investigate the multifaceted host defense mechanisms against pathogen infection via Arabidopsis-Pseudomonas syringae pathosystem. Previous researches showed that *P. syringae* strains produce a potent phytotoxin, coronatine, to hijack the jasmonate (JA) signaling as part of its pathogenesis mechanism. Through activation of JA signaling, coronatine suppresses salicylic acid (SA)-mediated defenses at the plant surface (stomata) to promote bacterial invasion and inside infected tissues (mesophyll cells) to facilitate bacterial multiplication in the apoplast. The first project is aimed at identifying JA receptor mutants that have reduced sensitivity to coronatine, but preserve responsiveness to endogenous JA, and constructing Arabidopsis plants expressing mutated JA receptor. The second project is to clone Arabidopsis genes that, when mutated, compensate for the loss of coronatine production in *P. syringae* pv. tomato (Pst) strain DC3000. I have identified two such genes, which are involved in plant cell-wall-based regulation of stomatal defense in Arabidopsis. Arabidopsis mutants of these two genes exhibited enhanced susceptibility to coronatine- Pst DC3000 and defect in SA-mediated stomatal closure.



Xiaoxiao Zhang  
CSIRO  
Australia

I received my PhD degree from the University of Queensland, Australia, in 2014. My PhD study was done in a structural biology lab, supervised by Bostjan Kobe, where I investigated the structure and function of key proteins from the plant effector-triggered immunity and animal innate immunity using X-ray crystallography coupled with protein biochemistry. After graduation, I joined CSIRO Agriculture in Canberra, Australia, as a Postdoctoral Fellow in the group of Peter Dodds and Maud Bernoux, where I'm continuing to investigate the function of plant immune receptors and the molecular mechanisms that control plant disease immunity to rust fungal infection, with special interest on subcellular localization and recognition of flax rust (*Melampsora lini*) fungal effectors, and TIR-domain protein interaction in the activation and signaling of plant NB-LRR immune receptors. My country of origin is China.



The 2016 IS-MPMI XVII Congress Travel Awards are named in honor of Dr. Ko Shimamoto, who 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, that 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.

Special thanks for the additional student travel funding support provided by USDA and NSF



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3340 Pilot Knob Road, St. Paul, MN 55121 U.S.A.

Toll-free (U.S. and Canada only): 1.800.481.2698 • Elsewhere: +1.651.454.7250

Fax: +1.651.454.0766

E-mail: [ismpmiinfo@scisoc.org](mailto:ismpmiinfo@scisoc.org)

[www.ispmi.org](http://www.ispmi.org)