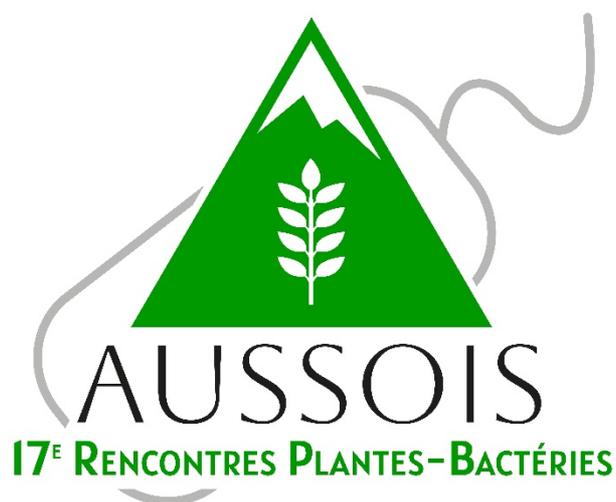


17èmes Rencontres Plantes Bactéries

Aussois, 13-17th January 2025



PROGRAM

Monday, January 13th

17:00 19:00 REGISTRATIONS

19:15 20:00 Welcome drink

20:00 21:00 DINER

21:10 21:20 Opening of the 17èmes Rencontres Plantes Bactéries

21:20 22:00 **Introductive SESSION**

Moderators: Marie Simonin, Benoît Alunni

21:20 22:00 Invited speaker **Olaya Rendueles-Garcia**
The bacterial capsule as a key driver of microbial evolution

Tuesday, January 14th

08:45 11:50 SESSION Molecular dialog during plant-bacteria interactions: from symbiosis to pathogenicity

Moderators : Adam Schikora, Axel de Zélicourt

08:45 Invited speaker Adam Schikora Specific and general factors modulating plant response to bacterial N-acyl homoserine lactones

09:25 Alicia Camuel New insights into the T3SS-triggered nodulation between *Bradyrhizobium* and *Aeschynomene*

09:40 Corinne Audran *Xanthomonas campestris* pv. *campestris* Tal12a contribution to black rot disease and prediction of its host targets in cauliflower

09:55 Laura Agert Function and adaptation of symbiotic receptors that activate the Nod-independent symbiosis in the tropical legume *Aeschynomene evenia*

10:10 Axelle Frantz Characterization of the role of apple agglutinins in resistance against fire blight

10:25 BREAK

10:50 Liam Lebeau Mechanisms by which plant and synthetic small non-coding RNAs direct gene silencing in bacteria

11:05 Marvin Navarro Characterization of an adaptive mutation in a Type 6 effector that improves the proliferation of *Ralstonia solanacearum* in *Mimosa pudica* nodules

11:20 Clara Blonde The role of anaerobic respiration of carbon sources in the adaptation and survival of *Dickeya dadantii*

11:35 Roza Mohammadi Role of the CckA-ChpT-DivL complex in the phosphorylation of the master regulator CtrA during the cell cycle and nitrogen-fixing symbiosis in *Sinorhizobium meliloti*

11:50 MY POSTER IN 60 SECONDS odd number/chiffre impair posters n°1 to 39

12:30 13:30 LUNCH

13:30 17:00 FREE or ROUND TABLE DISCUSSION (according to weather condition)



17:00 Alex Lheureux MilliDrop: Unlocking Insights into Plant-Bacteria Interactions

17:15 19:25 SESSION Structure, function and engineering of the microbiome

Moderators: Samuel Jacquioid, Corinne Vacher

17:15 Invited speaker Samuel Jacquioid Artificial selection of rhizosphere microbiota altering plant phenotype: treating microbial communities as units of selection

17:55 Logan Suteau Multi-Kingdom Synthetic Communities Modulate Seedling Microbiota and Reveal Key Bacteria-Fungi Interactions in *Brassica napus*

18:10 Amélie Caddéo Population dynamics modelling of synthetic communities isolated from seed bean microbiota and their impact on pathogen *Xanthomonas citri* pv. *fuscans*

18:25 Paola Fournier Revealing microbial consortia that interfere with grapevine downy mildew through microbiome epidemiology

18:40 Léa Jobert Cry for help: A differential rice root-associated microbiome response to foliar infection by two pathogenic fungi

18:55 Louna Colaert-Sentenac Transient Seed Microbes, Long-Term Impacts: Seed Microbiota Affect Seedling Phenotype and Microbiome Assembly

19:10 Barbara Pivato Plant-microbe and plant-plant interactions favouring iron content in crop plants

19:25 MY POSTER IN 60 SECONDS odd number/chiffre impair posters n°41 to 53

19:45 20:45 DINER

21:00 SESSION ODD NUMBER / CHIFFRE IMPAIR POSTERS

Wednesday, January 15th

08:45 11:40 SESSION Physiology of plant-bacteria interactions: regulation, epigenetics, metabolites

Moderators: Yael Helman, Mathilde Hutin

08:45 Invited speaker Yael Helman For better or worse - the effect of interspecies microbial interactions on disease severity in plants

09:25 Nicolas Burkhardt Reduction of basal levels of (p)ppGpp in experimentally evolved *Ralstonia solanacearum* as a means of adaptation to plant xylem and legume symbiosis

09:40 Tifaine Folletti et Pascal Ratet Characterization of the pathogenic interaction between an atypical endophytic bacteria *Ensifer adhaerens* T4 and the legume *Medicago truncatula*

09:55 Margaux Cheminat Molecular and physiological consequences of the *Streptomyces* sp. GPA1 - Barley relationship

10:10 Quentin Dubois Unravelling the mechanisms of *ArcZ* sRNA in the virulence control of *Dickeya solani*

10:25 BREAK

10:55 Gabriella Houdinet Investigating leaf symbiosis: how do plants cope without their hereditary bacteria ?

11:10 Ibrahim Keita Role of the long non-coding RNA *SYNC1* in transcriptional reprogramming during nodule development

11:25 Sara Moutacharrif Identification of a bifunctional RNA involved in the virulence of *Dickeya dadantii*

11:40 MY POSTER IN 60 SECONDS Even number / Chiffre Pair posters n°2 to 30

12:30 13:30 LUNCH

13:30 17:00 FREE or ROUND TABLE DISCUSSION (according to weather condition)



17:00 19:10 SESSION Evolution, phylogeny, plant and bacterial genomics

Moderators: Delphine Capela, Lionel Gagnevin

- 17:00 Invited speaker Delphine Capela** Unveiling the evolution of legume symbionts: beyond essential symbiotic gene acquisition
- 17:40 Noé Arroyo-Velez** Analysis of the diversity of prophages in *Xylella fastidiosa*
- 17:55 Frédéric Labbé** A Type 5 integrated prophage of “*Candidatus Liberibacter asiaticus*”, the destructive bacterial pathogens of *Citrus* Huanglongbing
- 18:10 Chloé Peduzzi** Evolutionary replacement of T4SS by T6SS for antibacterial killing activity in *Xanthomonas*
- 18:25 Ian Quibod** Population genomics of Rice Bacterial Leaf Blight in Africa
- 18:40 Johan Quilbé** Mechanisms governing the interaction between root and bacteria in the model legume *L. japonicus*
- 18:55 Antinéa Sallen** Genotypic and genomic analyses of French collection of *Ralstonia solanacearum* strains to improve knowledge of outbreak origins
- 19:10 Alvaro Perez-Quintero** The evolution of evolvability in *Xanthomonas*
- 19:25 MY POSTER IN 60 SECONDS** Even number / Chiffre Pair posters n°32 to 52

20:00 21:00 DINER

21:00 SESSION EVEN NUMBER/ CHIFFRE PAIR POSTERS

Thursday, January 16th

08:45 10:25 SESSION Chemical ecology, secondary metabolites

Moderators: Laure Weisskopf, Florence Wisniewski-Dyé

- 08:45 Invited speaker Laure Weisskopf** Chemical communication and its impact on the expression of biocontrol traits in plant-associated bacteria
- 09:25 Timothée Zannis-Peyrot** Phytobacteria extracellular vesicles as underestimated actors in plant-bacteria interactions
- 09:40 Ségolène Bouche** Ecology and mineral weathering ability of the ectomycorrhizosphere strain *Pseudomonas* sp. PML3(3)
- 09:55 Eva Caly Simbou** Bacteriocins of the *Ralstonia solanacearum* species complex: Biochemical and genetic characterization
- 10:10 Coline Amaro-Lauer** Competitive colonization of the potato host by the phytopathogen *Dickeya solani*

10:25 BREAK

10:50 12:30 SESSION Effect of the environment, Epidemiology, Ecology

Moderators: Edward Topp, Marie-Anne Barny

- 10:50 Invited speaker Edward Topp** The development and transmission of antibiotic resistance in crop production systems
- 11:30 Léna Pesenti** Exploring the xylem-sap to unravel interactions between bacterial xylem endophytes and two phytopathogenic bacteria, *Xylella fastidiosa* and *Brenneria salicis* in *Salicaceae* through metagenomics and *in vitro* studies
- 11:45 Gwennaëlle Henry** Impact of an introduced species of alder (*Alnus cordata*) on the associated *Frankia* diversity and nitrogen cycling microbial communities
- 12:00 Sylvain Vicente** Deciphering population dynamics of *Ralstonia solanacearum* inside a host tomato
- 12:15 Mathilde Hutin** Bacterial Leaf Blight of rice: an emerging threat to rice cultivation in East Africa

12:30 13:30 LUNCH

13:30 17:00 FREE or ROUND TABLE DISCUSSION (according to weather condition)



17:00 19:40 SESSION Plant immunity & Plant Health management: diagnostic, biocontrol

Moderators: Guillaume Chesneau, Barbara Pivato

- 17:00 **Invited speaker Guillaume Chesneau** The root microbiota: unraveling microbial multi-kingdom metabolic interactions and their implications for plant health
- 17:40 **Terriane Vanhove** Diversity of molecular factors of resistance to bacterial wilt (*Ralstonia solanacearum*) in eggplant
- 17:55 **Annaëlle Baud** Phage patrol: an effective targeted biocontrol strategy against *Xanthomonas hortorum* pv. *vitians*
- 18:10 **Soline Marty** Water and immunity – using a novel plant screen to identify candidate genes
- 18:25 **Valérie Martin** Fungal leaf communities reduce the development of grapevine downy mildew
- 18:40 **Michel Barbier** Description of the bacterial and fungal microbiota of rice field soils with antagonistic effects against the rice root-knot nematode *Meloidogyne graminicola* in Cambodia
- 18:55 **Audrey Pécourt** Towards a more sustainable agriculture, *Sphingomonas sedimicola* a potential bio-inputs to reduce chemicals inputs in a local crop rotation
- 19:10 **Claire Prigent-Combaret** Developing biocontrol products against broomrapes: from lab to field

19:45 20:45 DINER

21:00 PARTY TIME !

Friday, January 17th

09:00 09:30 SESSION Chemical ecology, secondary metabolites

Moderators: Florence Hommais, Benoit Alunni

09:00 Aurélie Deveau Roles of salicylates in the regulation of poplar microbiome colonization: from defence signalling molecule to carbon source

09:15 Frédérique Reverchon Antifungal and plant growth promoting activity of avocado phyllosphere bacteria and their organic extracts

09:30 10:00 SESSION Structure, function and engineering of the microbiome

Moderators: Wafa Achouak, Frédéric Labbé

09:30 Yvan Moëgne-Loccoz Geographic comparison of soils suppressive to root disease

09:45 Clara Torres-Barceló The phageome of apricot trees and its association with bacterial canker disease

10:30 Prize distribution and closing ceremony

12:00 13:00 LUNCH