

13th International Conference of the French Society of Plant Biology

<https://sfbvcongress.colloque.inrae.fr/>



Day 1 - Monday 29th of August

10:00 - 14:30 Registration and poster mounting

13:30 - 14:30 SFBV General Assembly

14:45 Christian Dubos, IPSiM, France
Opening remarks

Session 1: Plant nutrition

Chair: *Sandrine Ruffel*, IPSiM, France

15:00 - 15:40 **Keynote lecture**

Rodrigo A Gutierrez, Pontifical Catholic Univ of Chile, Chile
Spatiotemporal response to nitrate in Arabidopsis roots

15:40 - 15:55 **Céline Masclaux-Daubresse**, IJPB, France

How proteomic studies help us to understand essential roles of autophagy in plants

15:55 - 16:10 **Sylvie Dinant**, IJPB, France

The interplay of apoplastic and symplastic transport in sugar loading and phloem transport

16:10 - 16:25 **Pedro H Castro**, CIBIO - BIOPOLIS, Portugal

Tomazinco - from understanding how plants regulate zinc homeostasis towards zinc-biofortified tomatoes

16:25 - 16:40 **Kevin Robe**, IPSiM, France

New insights into coumarin localisation and role in *Arabidopsis thaliana*

16:40 - 17:00 Coffee break / Poster session

Session 2: Primary metabolism

Chair: *José Gentilhomme*, IRHS, France

17:00 - 17:40 **Keynote lecture**

Meisha Holloway-Phillips, University of Basel, Switzerland
Hydrogen isotopes of plant cellulose as hydroclimatic and metabolic proxies

17:40 - 17:55 **Caroline Baroukh**, LIPME, France

Multiorgan genome-scale metabolic modeling of a tomato plant at vegetative growth stage

17: 55 - 18:10 **Jean-Baptiste Domergue**, IRHS, France
Experimental evidence for seed metabolic allometry in barrel medic (*Medicago truncatula* Gaertn.)

18:10 - 18:25 **Michel Havaux**, BIAM, France
Non-photosynthetic functions of plastoquinone

18:25 - 18:40 **Alexis De Angeli**, IPSIM, France
AtALMT5 and AtALMT9, two vacuolar ion channels regulating fumarate and malate homeostasis in leaves

18:50 **Congress attendees group picture**

19:00 - 21:00 **Welcoming reception**

Day 2 - Tuesday 30th of August

Session 3: Specialized metabolism

Chair: *Nathalie Guivarch*, BBV, France

08:30 - 09:10 **Keynote lecture**
Alain Goossens, Ghent Univ, Belgium
Molecular interactions in plant specialized metabolism

09:10 - 09:25 **David Gagneul**, BioEcoAgro, France
Consecutive action of two BAHD acyltransferases arising from subfunctionalization of ancestral SHT promotes the accumulation of an unusual phenolamide in chicory pollen coat

09:25 - 09:40 **Justine Domont**, BioEcoAgro, France
Bitterness modulation of *Cichorium intybus* using CRISPR/CAS9 editing technology

09:40 - 09:55 **Jennifer Perrin**, BBV, France
Development of yeast factory cells to secure the production of the anti-cancer drug etoposide

09:55 - 10:15 **Coffee break / Poster session**

Session 4: Plant response to environmental stresses

Chair: *Sébastien Mongrand*, LBM, France

10:15 - 10:55 **Keynote lecture**
Sylvain Delzon, BIOGECO, France
The mechanistic traits of drought resistance in plants

10:55 - 11:10 **Léo Bellenger**, BBV, France
Elevated CO₂ restores near-wild-type phenotypes in the *era1* farnesylation Arabidopsis mutant

11:10 - 11:25 **Laura Mathieu**, PHIM, France
Plant-plant interactions modulate wheat susceptibility to septoria

11:25 - 11:40 **Amelie Morin**, EBI, France
Carbon fluxes in response to drought with a specific focus on *Pisum sativum*

11:40 - 11:55 **Olivier Gallet**, ERRMECe, France
Acoustic waves to modulate plant behavior in response to environmental stress

11:55 - 13:30 **Lunch / Poster session**

Session 5: Plant and pathogen interactions

Chair: *Elsa Ballini & Thomas Kroj, PHIM, France*

13:30 - 14:10 **Keynote lecture**
Thorsten Nürnberger, Univ of Tübingen, Germany
Arabidopsis cell surface LRR immune receptor signalling through the EDS1 PAD4 ADR1 node

14:10 - 14:25 **Jean-Marc Routaboul**, LIPME, France
The hydatode, an underrated organ?

14:25 - 14:40 **Marie Le Naour-Vernet**, PHIM, France
Investigation of the role of virulence effectors of the blast fungus *Magnaporthe oryzae*

14:40 - 14:55 **Julie Lintz**, IAM, France
Two-in-one plant defense peptides - characterization of both antifungal and elicitor activities of RISPs (Rust Induced Secreted Peptides).

14:55 - 15:10 **Valérie Cotelle**, LRSV, France
Cross-regulation between the calcium dependent protein kinase CPK3 and 14-3-3 proteins during programmed cell death mediated by sphingolipids in Arabidopsis

15:10 - 15:30 **Coffee break / Poster session**

Session 6: Plant and beneficial microorganism interactions

Chair: *Florence Vignols & Guilhem Desbrosses, IPSiM, Montpellier France*

15:30 - 16:10 **Keynote lecture**
Natalia Requena, Karlsruhe Institute of Technology, Germany
Getting to the root of the arbuscular mycorrhiza symbiosis

- 16:10 - 16:25 **Clément Nicolle**, LRSV, France
Molecular basis of plant defenses stimulation by the soil borne *Streptomyces* strain AgN23: characterization of a novel necrotic elicitor
- 16: 25 - 16:40 **Fanny Nazaret**, ISA, France
A new *Sinorhizobium meliloti* redox-sensing transcriptional regulator plays a crucial role in symbiosis with *Medicago truncatula*
- 16:40 - 16:55 **Marie-Noëlle Vaultier**, SILVA, France
To what extent does ectomycorrhizal symbiosis prepare trees for signaling abiotic challenges?
- 16:55 - 17:10 **Eliane Bou Orm**, IMT Mines Alès, France
The influence of microbial communities on the evolution of the plant cell wall of “*Cannabis sativa*” stems during the retting process

Day 3 - Wednesday 31st of August

Session 7: Plant development

Chair: *Soazig Guyomarc'h & Laurent Laplaze, DIADE, France*

- 09:00 - 09:40 **Keynote lecture**
Gwyneth Ingram, ENS Lyon, France
Apoplastic modifications in plant reproductive development: the (w)hole story
- 09:40 - 09:55 **Gael Paszkiewicz**, Univ of Tübingen, Germany
Pre-patterning and turing reactions: how the leaf acquires and propagates adaxial-abaxial polarity (or dorsiventrality)
- 09:55 - 10:10 **Samuel Nomo**, Volcani Institute, Israel
Effect of gibberellin and paclobutrazol on potato phenology and tuber yield
- 10:10 - 10:25 **Arthur Poitout**, IPSiM, France
Role of ROS nanodomains at the plasma membrane
- 10:25 - 10:40 **Marion Thomas**, IPSiM, France
The agravitropic root phenotype of *pin2* mutants is conditional and demonstrates an effect of nutrients on auxin transport
- 10:40 - 11:00 **Coffee break / Poster session**

Session 8: Genome structure & expression

Chair: *Jean Molinier, IPMB, France*

- 11:00 - 11:40 **Keynote lecture (EMBO Young Investigator Lecture)**
Sebastian Marquardt, University of Copenhagen, Denmark
Languages of the non-coding genome

- 11:40 - 11:55 **Sandra Cortijo**, IPSiM, France
Regulation and consequences of gene expression variability between plants for nitrate nutrition in *Arabidopsis*
- 11:55 - 12:10 **Julien Rozière**, IPS2, France
A map of gene-proximal *cis*-regulatory sequences in the *Arabidopsis* and maize genomes
- 12:10 - 12:25 **Soledad Traubenik**, IPS2, France
Probing the role of miRNAs in the evolution of cluster roots in white lupin
- 12:25 - 12:40 **Damien Garcia**, IPMB, France
The NYN domain endoribonuclease DNE1 interacts with decapping activators and is required for phyllotaxis in *Arabidopsis thaliana*
- 12:40 - 14:00 **Lunch / Poster session**

Session 9: Genetics and breeding

Chair: *David Pot*, AGAP, France

- 14:00 - 14:40 **Keynote lecture**
James Schnable, University of Nebraska-Lincoln, USA
Finding and prioritizing genes with phenotypic impact across maize and sorghum
- 14:40 - 14:55 **Karima El Mahboubi**, LRSV, France
GWAS identifies candidate immunity mechanisms in the liverwort *Marchantia polymorpha*
- 14:55 - 15:10 **Kevin Gimenez**, GDEC, France
Genome structure and heterosis: paving new ways to breed for better wheat hybrids
- 15:10 - 15:25 **Franz Boideau**, IGEPP, France
Intriguing recombination profiles in allotriploid Brassica hybrids
- 15:25 - 15:40 **Coffee break / Poster session**
- 15:40 - 16:00 **Poster and talk award announcements**
- 16:00 - 16:15 **SFBV Medal of Honor**
- 16:15 - 16:30 **Concluding remarks**
- 16:30 **Poster dismantling**

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