

PLANT Workshop – Program

March 24 - April 4, 2025
Institut Pascal (Université Paris-Saclay)



Topics and chairs

> Theme I - Frontiers in Plant Science fundamental research

Chaired by Anja Krieger-Liszkay, Xenie Johnson, and Leandro Quadrana

> Theme II - Feeding the planet: roles for Plant Science and associated environmental and socio-economic challenges

Chaired by Jean Colcombet, Mathilde Fagard and Michael Hodges

> Theme III: "Plants as factories: from chemical compounds to mitigating climate change"

Chaired by Stéphanie Baumberger and Herman Höfte

> Transversal topic - Teaching and training

Chaired by Marianne Delarue, Benoît Alunni, Alia Dellagi, Helke Hillebrand and Mathieu Jossier

> Transversal topic - Innovation

Chaired by Sylvie Dinant and Loïc Rajjou

> Transversal topic - Outreach

Chaired by Pierre Hilson, Isabel Mendoza and Marie-Jeanne Sellier

> Transversal topic - Open Science

Chaired by Denis Bourguet, Maud Fagny and Grégory Mouille

	THEME 1					THEME 2		THEME 3				
	Monday March 24	Tuesday March 25	Wednesday March 26	Thursday March 27	Friday March 28	Saturday March 29	Sunday March 30	Monday March 31	Tuesday April 1	Wednesday April 2	Thursday April 3	Friday April 4
09:30	J. Bittoun	M. Mutwill	N. Provart	P. Ciais	P. Puigdomenech			MJ Sellier L. Lepiniec	A. Dejardin	S. Baumberger	W. Boerjan	K. Saito
10:00	MJ Sellier											
10:15	L. Lepiniec	K. Haas	D. Weigel	B. Scheres	H. Hirt			P. Leadley	JD Faure	C. Gutjahr	A. Osbourn	W. Busch
11:00	Break	Break	Break	Break	Break			Break	Break	Break	Break	Break
11:30	C. Maurel	S. Luan	V. Grieneisen	P. Ronald	M. Hoffe			C. Huygue	O. Hamant	F. Bourgaud	H. Hoffe	O. Martin
12:15	D. Weijer	B. Moulia	A. Weber	C. Chenu	F. Bekkaoui			C. Feuillet	S. Nicklaus	G. Krouk	MC. Damave	General discussion
13:00	Lunch (buffet)	Lunch (buffet)	Lunch (lunch box)	Lunch (buffet)	Lunch (buffet)			Lunch (buffet)	Lunch (buffet)	Lunch (lunch box)	Lunch (buffet)	Lunch (buffet)
14:00	Introduction of the afternoon discussions	Introduction of the afternoon discussions	Introduction of the afternoon discussions	Introduction of the afternoon discussions	Introduction of the afternoon discussions			D. Bourguet / G. Mouille	MA. Seloisse	Introduction of the afternoon discussions	Outreach	
15:00	Break	Break	Break	Break	Break			Break	Break	Break	Break	
15:30	Group discussions - Theme 1 - Teaching and Training	Group discussions Theme 1	Group discussions - Theme 1 - Outreach	Group discussions - Theme 2 - Teaching and Training	Group discussions - Theme 2 - Innovation			Group discussions - Theme 2 - Open Science	Group discussions - Theme 2 - Outreach	Group discussions - Theme 3 - Innovation	Group discussions - Theme 3 - Outreach	
16:45	Break	Break	Break	Break	Break			Break	Break	Break	Break	
17:15	Feedbacks & discussion	Feedbacks & discussion	Feedbacks & discussion	Feedbacks & discussion	Feedbacks & discussion			Feedbacks & discussion	Feedbacks & discussion	Feedbacks & discussion	Feedbacks & discussion	
18:15	Pizzas	Gramophone		Cocktail		Dinner-cruise		Pizzas		Gramophone		

Monday March 24

- 9:30AM** Jacques Bittoun (Université Paris-Saclay, Institut Pascal) - Presentation of the Institut Pascal
- 10AM** Marie-Jeanne Sellier (IJPB, SPS, France) - Practical information
- 10:15AM** Loïc Lepiniec (IJPB, SPS - Université Paris-Saclay - INRAE - AgroParisTech, France) – Introduction to the workshop “Plant Sciences in the Anthropocene”
- 11AM** Break
- 11:30AM** Christophe Maurel (IPSiM, France) – “Plants and water: climate change puts the pressure on”
- 12:15PM** Dolf Weijers (Wageningen University, The Netherlands) – “A protein-centered view towards fundamental plant biology”
- 1PM** Lunch (buffet)
- 2PM** Introduction of the afternoon discussions
- 3PM** Break
- 3:30PM** Discussions on:
- Theme I
- Teaching & Training
- 4:45PM** Break
- 5:15PM** Restitution of the discussions
- 6:15PM** End of the day
- 7PM** Dinner at the Institut Pascal (pizzas)

Tuesday March 25

9:30AM Marek Mutwill (NTU Singapore) – "Gene function prediction challenge: knowledge graphs to the rescue!"

10:15AM Kalina Haas (IJPB INRAE, France) – "Advanced Bioimaging of Plant Cell Expansion Dynamics: Capturing Extremely Small and Rapid Processes"

11AM Break

11:30AM Sheng Luan (UC Berkeley, USA) - "Decoding calcium signals contributes to sustainable agriculture"

12:15PM Bruno Moulia (PIAF INRAE, France) – "Mobilizing Interdisciplinarity for Plant Sciences: Lessons and Pathways"

1PM Lunch (buffet)

2PM Introduction of the afternoon discussions

3PM Break

3:30PM Discussions on Theme I

4:45PM Break

5:15PM Restitution of the discussions

6:15PM End of the day

7:30PM Dinner at the restaurant « Le Gramophone » (upon registration)

Wednesday March 26

9:30AM Nicholas Provart (University of Toronto, Canada) – "Raising the BAR for Plant Translational Biology: Guard Cell Drought Transcriptomes Use Case"

10:15AM Detlef Weigel (MPI Tübingen, Germany) – "Imperfect plants in an imperfect world"

11AM Break

11:30AM Veronica Grieneisen (Cardiff University, UK) – "The multi-scale nature of transport in plants: from auxin to nutrients, and translating knowledge from Arabidopsis to other species"

12:15PM Andreas Weber (CEPLAS, Heinrich Heine University, Germany) – "Overcoming limitations of photosynthesis through synthetic biology"

1PM Lunch (lunch box)

2PM Introduction of the afternoon discussions

3PM Break

3:30PM Discussions on:
- Theme I
- Outreach

4:45PM Break

5:15PM Restitution of the discussions

6:15PM End of the day

Thursday March 27

9:30AM Philippe Ciais (LSCE, France) – "Impact of climate extremes on cultivated plants"

10:15AM Ben Scheres (Wageningen University Research, The Netherlands) – "The potential and pitfalls of Data Driven Breeding for sustainable agriculture"

11AM Break

11:30AM Pamela Ronald (UC Davis, USA) – "Engineering crops for resilience to a changing climate"

12:15PM Claire Chenu (INRAE, France) – "Plants' contribution to Carbon sequestration in soils and soil health"

1PM Lunch (buffet)

2PM Introduction of the afternoon discussions

3PM Break

3:30PM Discussions on:
- Theme II
- Teaching & Training

4:45PM Break

5:15PM Restitution of the discussions

6:15PM End of the day

7PM Dinner at the Institut Pascal (cocktail)

Friday March 28

9:30AM Pere Puigdomènech (CIRAD, France) – “Role of scientists in debates on sustainable food production”

10:15AM Heribert Hirt (KAUST, Saudi Arabia) – “Harnessing the power of deserts for fortifying plants to climate change”

11AM Break

11:30AM Monica Höfte (Ghent University, Belgium) – "The importance of plant health for one health"

12:15PM Faouzi Bekkaoui (INRA Maroc) – “Contribution of agricultural research for better resilience of Moroccan agriculture”

1PM Lunch (buffet)

2PM Introduction of the afternoon discussions

3PM Break

3PM Discussions on:
- Theme II
- Innovation

4:45PM Break

5:15PM Restitution of the discussions

6:15PM End of the day

Saturday March 29

6PM Dinner-cruise on the Seine (for those who registered for the outing in time)

Monday March 31

- 9:30AM** Presentation of the Institut Pascal and introduction to the workshop “Plant Sciences in the Anthropocen (Loïc Lepiniec)
- 10:15AM** Paul Leadley (ESE, France) – "Pathways and response options for maximizing co-benefits and reducing tradeoffs between biodiversity, climate change and food systems: key messages from the IPBES Nexus Assessment"
- 11AM** Break
- 11:30AM** Christian Huyghe (INRAE, France) – “Feeding the planet while getting back into the planetary boundaries: challenges and possible trajectories”
- 12:15PM** Catherine Feuillet (INARI Agriculture, USA) – "Solving Our Food System Challenges Through Integrated Innovation"
- 1PM** Lunch (buffet)
- 2PM** Denis Bourguet, Maud Fagny and Grégory Mouille - "Peer Community In and Peer Community Journal: from preprint recommendation to diamond open access publication"
- 3PM** Break
- 3:30PM** Discussions on:
- Theme II
- Open Science
- 4:45PM** Break
- 5:15PM** Restitution of the discussions
- 6:15PM** End of the day
- 7PM** Dinner at the Institut Pascal (pizzas)

Tuesday April 1

9:30AM Annabelle Dejardin (BioForA, France) – “Breeding for the agroecological transition: the test case of an old forgotten crop”

10:15AM Jean-Denis Faure (IJPB, France) – “Breeding for the agroecological transition: the test case of an old forgotten crop”

11AM Break

11:30AM Olivier Hamant (INRAE and ENS Lyon, France) – “Sustainability: Robustness before efficiency”

12:15PM Sophie Nicklaus (INRAE, France) – “Driving consumers to eat more plant-based foods: nutritional, taste and organizational challenges”

1PM Lunch (buffet)

2PM Marc-André Selosse (MNHN, France) – “Microbiota supporting plants and health: how to support them”

3PM Break

3:30PM Discussions on:
- Theme II
- Outreach

4:45PM Break

5:15PM Restitution of the discussions

6:15PM End of the day

Wednesday April 2

- 9:30AM** Stéphanie Baumberger (IJPB, France) – “Role of plant sciences in the development of a global sustainable bioeconomy”
- 10:15AM** Caroline Gutjahr (MPI Potsdam, Germany) – “Harnessing arbuscular mycorrhiza to enhance plant resilience”
- 11AM** Break
- 11:30AM** Frédéric Bourgaud (ENSAIA, France) – "Natural molecules from plants – a source of inspiration for human health and plant protection in a One Health approach"
- 12:15PM** Gabriel Krouk (IPSiM, France) - "Examples of machine learning to advance (plant) biology"
- 1PM** Lunch (lunch box)
- 2PM** Introduction of the afternoon discussions
- 3PM** Break
- 3:30PM** Discussions on:
- Theme III
- Innovation
- 4:45PM** Break
- 5:15PM** Restitution of the discussions
- 6:15PM** End of the day
- 7:30PM** Dinner at the restaurant « Le Gramophone » (upon registration)

Thursday April 3

- 9:30AM** Wout Boerjan (VIB / Gent University, Belgium) – “Making better trees for pulping and biorefining: from gene discovery in Arabidopsis to field trials with GM poplar”
- 10:15AM** Anne Osbourn (John Innes Centre, UK) – “A million shades of green: Understanding and harnessing plant metabolic diversity for food and health applications”
- 11AM** Break
- 11:30AM** Herman Höfte (IJPB, France) – “Perspectives in plant cell wall research”
- 12:15PM** Marie-Cécile Damave (Agridées, France - "A land-based bioeconomy, enabling farming resilience"
- 1PM** Lunch (buffet)
- 2PM** Pierre Hilson (IJPB, France) – “The many flavors of science outreach”
- 3PM** Break
- 3:30PM** Discussions on:
- Theme III
- Outreach
- 4:45PM** Break
- 5:15PM** Restitution of the discussions
- 6:15PM** End of the day

Friday April 4

- 9:30AM** Kazuki Saito (RIKEN, Japan) – “The challenge of phytochemical genomics in the Anthropocene”
- 10:15AM** Wolfgang Busch (Salk Institute for Biological Studies, USA) – “Harnessing Plants for Direct Carbon Removal: Generating Long-Lived Soil Carbon”
- 11AM** Break
- 11:30AM** Olivier Martin (IPSS, France) – “Conclusion and Prospects”
- General discussion
- 1PM** Lunch (buffet)
- 2PM** End of the workshop