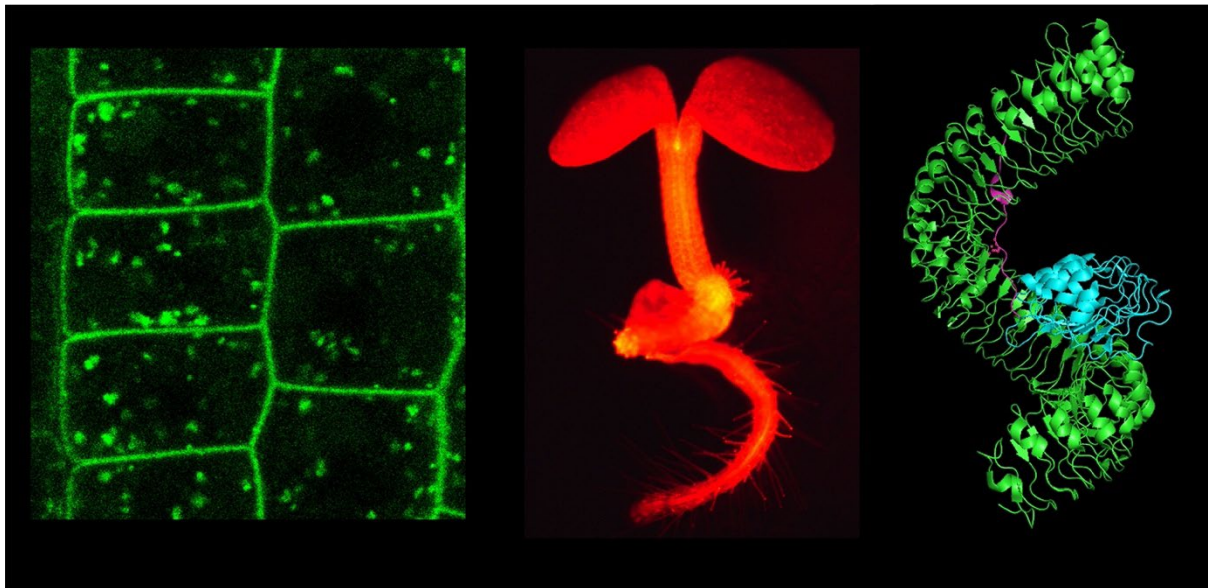




PLANT PEPTIDES
AND RECEPTORS
MEETING 2024



Conference Program



Welcome to the Plant Peptides and Receptors Meeting 2024

The **12th Plant Peptides and Receptors Meeting** takes place from the **11th to the 13th of September 2024** and is held at the Fletcher Hotel De Wageningsche Berg in **Wageningen**.

The conference targets interested Master's and PhD students, postdoctoral researchers, principal investigators, and non-academic participants. The workshop focuses on plant peptides, their membrane-bound and cytoplasmic receptors, their modifying enzymes, and downstream signalling events in plant development and adaptation. It will feature a number of invited speakers, talks chosen from abstract submissions, and poster sessions.

The PPRM's primary goals:

- Highlight recent advancements in the field of plant receptor kinases
- Present different views and models of receptor activation, other than only canonical ligand perception
- Share technological advancements on how to conduct comprehensive mechanistic studies of RKs signalling
- Create a safe and inclusive environment for a scientific exchange
- Provide a platform for information exchange and potential future collaboration
- Take advantage of existing knowledge and expertise to develop interdisciplinary collaborative project ideas

Program

Wednesday, September 11th

11:30 – 12:00 Registration

12:15 – 13:00 Lunch

13:00 – 13:15 Opening of the meeting – Welcome by Elwira Smakowska-Luzan

Session I: Immunity

Chair: Kyle Bender

13:15 – 13:45 Keynote Speaker: Libo Shan

Nature's Sentinel: Functional Insights and Evolutionary Patterns in Plant Peptide-Receptor Immune Signaling

13:45 – 14:00 Hannah Weber

If you like it, put a ring on it – How HIR2 could organize RLKs in the plasma membrane

14:00 – 14:15 Cyril Zipfel

A peptide-receptor module links cell wall integrity sensing to pattern-triggered immunity

14:15 – 14:30 Henriette Leicher

Endogenous RALF peptide function is required for powdery mildew host colonization

14:30 – 14:45 Frank Menke

Connecting Membrane Receptor Signalling And Effector-Triggered Immunity Via Helper NLR Phosphorylation

14:45 – 15:00 Oliver Johanndrees

Evolutionary insights into the CTNIP-HSL3 Signaling Module Across Angiosperms

15:00 – 15:15 Ralph Hückelhoven

Overlapping and distinct recognition specificity for exogenous and endogenous signalling peptides in MIK2-family receptors from different plant lineages

15:15 – 15:30 Flash talks: Even numbers - part 1 (6 talks)

15:30 – 15:55 Coffee Break

15:55 – 16:00 Pitch presentation by Thermo Fisher Scientific

Session II: Reproduction

Chair: Lei Wang

16:00 – 16:30 Keynote speaker: Li-Jia Qu

Peptide/receptor-mediated signaling controls double fertilization in Arabidopsis

16:30 – 16:45 Zachary Nimchuk

Floral innovation in the Asteraceae evolved through modifications in plant stem cell peptide signaling

16:45 – 17:00 *Philipp Denninger*

Beyond receptors – Regulation of RhoGTPase signaling during pollen germination

17:00 – 17:15 *Isaia Vardanega*

On the role of stem cell regulators in shaping barley spike architecture

17:15 – 17:30 *José Antonio Montano García*

RALF/LRX implication in cell wall integrity during tomato fruit formation

17:30 – 17:45 *Christian Hardtke*

Antagonistic CLE peptide pathways shape root meristem tissue patterning

17:45 – 18:00 Flash talks: Even numbers - part 2 (6 talks)

18:00 – 18:15 Pitch presentation by Molecular Plant

18:45 – 20:00 Dinner

20:00 – 22:00 Poster session I (even numbers) with drinks

Thursday, September 12th

Session III: Stress signalling and mechanosensing

Chair: Jasper Lamers

08:30 – 09:00 Keynote Speaker: Nora Gigli Bisceglia

Exploring the Role of Cell Walls in Controlling Stress Responses in Plants

09:00 – 09:15 Irene Guzmán-Benito

PBLs as Novel Players in Single-Cell Plant Signaling Specificity

09:15 – 09:30 Luiselotte Rausch

Phytosulfokines as rapid cell wall mediators during root growth in *Arabidopsis thaliana*

09:30 – 09:45 Feng Yu

Regulated Cleavage and Translocation of FERONIA Control Immunity in *Arabidopsis* Roots

09:45 – 10:00 Kris Vissenberg

Rapid Alkalinization Factor 22 (RALF22) has a structural and signalling role in *Arabidopsis* root hair cell wall assembly

10:00 – 10:15 Jasmin Kemppinen

Exploring the role of GHR1 in plant immunity: insights from *Arabidopsis* mutants with constitutively open stomata

10:15 – 10:30 Rong Li

Poltergeist-Like 2 (PLL2)-dependent activation of the wound response distinguishes systemin from other phyto cytokine signaling pathways

10:30 – 10:45 Flash talks: Odd numbers - part 1 (6 talks)

10:45 – 11:15 Coffee Break

Session IV: Complex formation and technical advancement

Chair: Martin Stegmann

11:15 – 11:45 Keynote: Herman Höfte

Pectin-protein interactions in plant cell wall assembly and expansion

11:45 – 12:00 Sergio Martín-Ramirez

Redox-dependent extracellular interaction networks of Cysteine-rich Receptor-Like Kinases

12:00 – 12:15 Chuanyou Li

Peptide REF1 is a local wound signal promoting plant regeneration

12:15 – 12:30 Lin Xi

QSK1 modulates ER-PM contact sites to regulate small molecules transport through PD

12:30 – 12:45 Ann-Kathrin Röβling

Mechanosensing and Signalling: The interplay of FERONIA, pectin, and RALF peptides in plant cell walls

12:45 – 13:00 Matthieu Joosten

Immune signalling by cell surface-localised receptor-like proteins (RLPs) reveals its secrets

13:00 – 13:15 Flash talks: Odd numbers - part 2 (6 talks)

13:15 – 14:00 Lunch

14:00 – 18:00 Trip to Kröller-Müller Museum

18:30 – 20:00 Conference Dinner

20:00 – 21:30 Poster session (Odd Numbers) with drinks

21:30 Party

Friday, September 13th

Session V: Symbiosis

Chair: Kate Parys

08:30 – 09:00 Keynote Speaker: Simona Radutoiu

Recognition of symbionts and pathogens by LysM receptor kinases

09:00 – 09:15 Yusuke Saijo

Immune peptide receptor and symbiosis regulator drive mutualistic interactions with plant growth promoting bacteria in rice

09:15 – 09:30 Rafael Jorge León Morcillo

RAPID ALKALINIZATION FACTOR 22 regulates root hair growth in response to fungal ethylene emissions

09:30 – 09:45 Emma Guillerme

Balancing nodule number with a CLV1-like receptor: identification of signalling proteins using a proteomics approach

09:45 – 10:00 Sona Pandey

Receptor kinase dependent G-protein phosphorylation and its role in regulating signaling during soybean nodulation

10:00 – 10:30 Coffee Break

Session VI: Development I

Chair: Svenja Augustin

10:30 – 11:00 Keynote: Charlotte Kirchhelle

Cell wall perception on edge - translating cell geometry into directional growth

11:00 – 11:15 Kaltra Xhelilaj

A plasma membrane pH-stat coordinates cell surface processes and root development

11:15 – 11:30 Ora Hazak

Progression in xylem maturation relies on a non-cell-autonomous peptide-dependent mechanism

11:30 – 11:45 Peter Grones

Plasma membrane alterations during plant immune response

11:45 – 12:30 Lunch

Session VII: Development II

Chair: Ran Lu

12:30 – 13:00 Keynote: André Kuhn

RAF-like kinases are conserved intracellular integrators of rapid responses

13:00 – 13:15 Max Fishman

RGF peptides and their cognate receptors play a role in *Phtheirospermum japonicum* haustorium development

13:15 – 13:30 *Noel Blanco-Touriñán*

The brassinosteroid receptor gene BRI1 safeguards cell-autonomous brassinosteroid signaling across tissues

13:30 – 14:00 Poster and talk prizes and closing remarks

Sponsors



