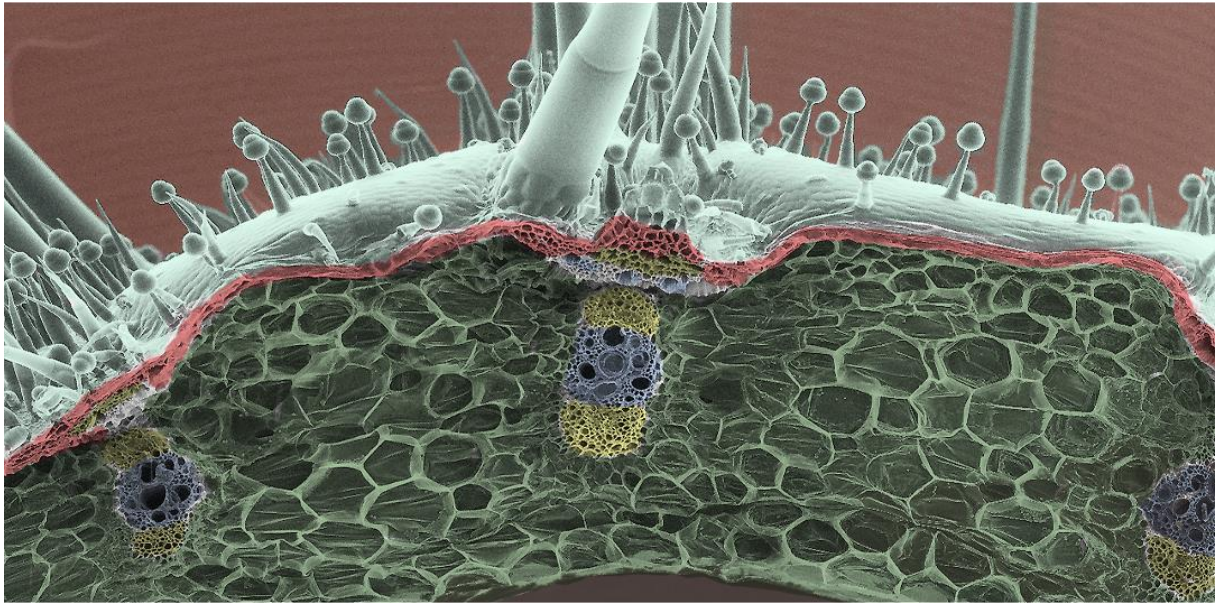


Provisional Program



**Sixth international conference on Plant Vascular Biology
2022**

July, 17th – 21st, 2022

Harnack House, Ihnestrasse 16-20, 14195 Berlin, Germany

Local Organizing Committee

Friedrich Kragler, MPI-MPP, Golm, Germany

Julia Kehr, University Hamburg, Germany

Rainer Hedrich, University Würzburg, Germany

Uwe Sonnewald, FAU, Erlangen, Germany

International Advisory Board

Yong-Ling Ruan, Newcastle, Australia

Yrjo Helariutta, Cambridge, UK

Christine Beveridge, Australia

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Sylvie Dinant, INRA Centre de Versailles-Grignon, France

Mechthild Tegeder, WSU, USA

Kaare Jensen, Copenhagen, Denmark

David Braun, USA

Tim Brodribb, Australia

Missy Holbrook, USA

Gertrud Lohaus, Germany

Yi-Fang Tsay, Academia Sinica, Taiwan

Koh Aoki, Japan

Xiangdong Fu, China

Plant Vascular BIOLOGY 2022
PROGRAM SCHEDULE

Sunday, July 17th

Participant's arrival, registration, Poster set-up (all posters will be on display throughout the conference)

Welcome Reception & Evening Lecture by **William J. Lucas**

Monday, July 18th

Session I: Vascular Transport - Sugars

Chairperson:

- | | |
|--------------------------|---|
| 09:00-09:45 | Keynote Lecture Michael Knoblauch "How Sieve Elements work" |
| 09:45-10:10 | Lecture Ekkehard Neuhaus "Dynamic changes of intracellular sugar transport under stress" |
| 10:00-10:25 | Short Talk (N.N.) |
| 10:25-10:40 | Short Talk (N.N.) |
| 10:40-11:00 Coffee Break | |

Session II: Vascular Transport – More than sugars

Chairperson:

- | | |
|-------------|---|
| 11:00-11:25 | Lecture Christine Beveridge "Overlapping pathways of sugars and hormones" |
| 11:25-11:50 | Lecture Salome Prat "Vascular-related gene expression during early potato tuber development" |
| 11:50-12:05 | Short Talk (N.N.) |
| 12:05-12:20 | Short Talk (N.N.) |

13:00-14:00 Lunch

Session III: Vascular Transport – Harmonizing C and N-allocation

Chairperson:

- 14:00-14:25 Lecture **Mechthild Tegeder**, “Altering assimilate partitioning to improve seed yield and quality”
- 14:25-14:50. Lecture **Yi-Fang Tsay** “Phloem and xylem transport of nitrate”
- 14:50-15:15 Lecture **Xiangdong Fu** “The coordinated regulation of plant architecture and nitrogen metabolism for sustainable agriculture”
- 15:15-15:30 Short Talk (N.N.)

15:35-16:00 Coffee break

Session IV: Vascular Transport – When altitude matters

Chairperson:

- 16:00-16:25 Lecture **Andrew Groover** “Regulation of vessel traits impacting drought resistance in trees”
- 16:25-16:50 Lecture **Ari Pekka** “Cambial development: at the crossroads of signaling“
- 16:50-17:15 Lecture **Tim Brodribb** “Vascular catastrophes, do they kill leaves”
- 17:15-17:40 Short Talk **Michele Holbrook** “Contagion! How does the xylem resist invasion and spread?”
- 17:40-18:00 Spotlight Talks (three presentations, 5 minutes each)

18:30-20:00 Dinner

20:00-21:30 Poster Session

Tuesday, July 19th

Session V: (When) microbes gain access

Chairperson:

- 09:00-09:45 Keynote Lecture **Giles Oldroyd** "Improving sustainable productivity through microbial associations"
- 09:45-10:10 Lecture **Katharina Markmann** "Systemic control of symbiotic competence through mobile miRNAs"
- 10:00-10:25 Lecture **Alexandra CU Furch** "Phytoplasma-plant interaction"
- 10:25-10:40 Short Talk (N.N.)
- 10:40-11:00 Coffee Break

Session IV: Vascular differentiation is key

Chairperson:

- 11:00-11:25 Lecture **Yrjo Helariutta** "Towards morphogenesis and functionality of phloem"
- 11:25-11:50 Lecture **Laura Ragni** "Coordination, Regulation and Specificity of Lateral Meristems"
- 11:50-12:05 Short Talk (N.N.)
- 12:05-12:20 Short Talk (N.N.)
- 13:00-14:00 Lunch

Session VII: Interspecific plant-plant connections

Chairperson:

- 14:00-14:25 Lecture **Kirsten Krause** "Nutrient selectivity of parasitic dodders and its implication for transport pathways"
- 14:25-14:50 Lecture **Markus Albert** "Host Resistance mechanisms in plant-plant interactions"
- 14:50-15:15 Lecture **Koh Aoki** "Trans-species symplastic communication in the complex of parasitic and host plants"

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15:15-15:30 Short Talk (Steven Runo)

15:30-15:45 Short Talk (N.N.)

15:45-16:00 Coffee break

Session VIII: Breaking new grounds

Chairperson:

16:00-16:45 Keynote lecture **Howard A. Stone** “Understanding Phloem Micro Fluidics ”

16:45-17:10 Lecture (N.N.)

17:10-17:25 Short Talk **Juan Losada** “ Geometrical variation of the xylem and the phloem associates with hydraulic function under water scarcity in polyploid trees”

17:25-17:40 Short Talk (N.N.)

17:40-18:00 Spotlight Talks (three presentations, 5 minutes each)

18:30-20:00 Dinner

20:00-21:30 Poster Session

Wednesday, July 20th

Session IX: Bill´s playlist

Chairperson: **Bill Lucas**

09:00-09:45 Keynote Lecture **Ron Mittler** “Key mediators of rapid systemic signals”

09:45-10:10 Lecture **Sandrine Ruffel** “Regulatory Network behind Systemic Nitrogen Signaling”

10:00-10:25 Lecture **Byung-Kook Ham** “Role of vascular system in nutrient-stress signaling”

10:25-10:40 Short Talk **Stephane Blanc** „A multicellular way of life for a multipartite virus“

10:40-11:00 Coffee Break

Session X: Calcium-Electric Signaling 1

Chairperson:

11:00-11:25 Lecture **Ingo Dreyer** “Mechanistic insights into electrical signaling in plants“

11:25-11:50 Lecture **Myriam Charpentier** “Calcium signalling in legume root endosymbioses”

11:50-12:05 Short Talk (N.N.)

12:05-12:20 Short Talk (N.N.)

13:00-14:00 Lunch

14:00 -15:00 **PVB board meeting**

Free Afternoon, Sight Seeing

No Dinner

Thursday, July 21st

Session XI: Calcium-Electric Signaling 2

Chairperson:

09:00-09:45 Keynote Lecture **Ted Farmer** “Phloem-xylem interaction in wound-response electrical signalling”

09:45-10:10 Lecture **Masatsugu Toyota** “Calcium-based rapid defense movements in Mimosa pudica”

10:10-10:25 Short Talk (N.N.)

10:25-10:40 Short Talk (N.N.)

10:40-11:00 Coffee Break

Session XII: Leaf shape meets vascular function

Chairperson:

- 11:00-11:45 Keynote Lecture **Miltos Tsiantis** “Leaf Shape Diversity: From Genetic Modules to Computational Models”
- 11:45-12:10 Lecture **Elisabeth Truernit** „Forward and reverse: What can we learn about the phloem from the OCTOPUS gene family?”
- 12:10-12:35 Lecture **(N.N.)**
- 12:35-12:50 Short Talk (N.N.)

13:00-14:00 Lunch

Session XIII: Development and Evolution

Chairperson:

- 14:00-14:25 Lecture **Ines Fuchs** “Calcium decoding of long distance signaling”
- 14:25-14:50 Lecture **Scott McAdam** “How stomatal evolution has shaped the evolution of xylem“
- 14:50-15:05 Short Talk (N.N.)
- 15:05-15:20 Short Talk (N.N.)
- 15:20-15:35 Short Talk (N.N.)

15:35-16:00 Coffee break

Session XIV: In silico plant

Chairperson:

- 16:00-16:25 Lecture **N.N.** “Adaptation of vascular tissue to C4 metabolism”
- 16:25-16:50 Lecture **Richard Morris** “How plants broadcast their pain”

16:50-17:15 Lecture **Kirsten ten Tusscher** "Fragmented fates: Resolving the protophloem gap phenotype enigma"

17:15-17:30 Short Talk (N.N.)

17:30-18:15 Closing Remarks & Evening Lecture by **Aart J.E. van Bel**

18:30-20:00 BBQ

20:00-21:30 Poster Session

Friday, July 22nd

Farewell and Departure