Identification of tonoplast aquaporins in chloroplast membranes with role in photosynthesis

A. Beebo, Karim Bouhidel, Benoît Schoefs, C. Spetea

International Workshop on Plant Membrane Biology XVI
IWPMB 2013
25-31 March, 2013, Kurashiki, Japan

- Gallery
- What's new
- Home
- Organizing committees
- Key dates
- Program
- Proceedings
- Abstract submission
- Registration
- Invited speaker
- Venue
- Access
- Accommodation
- Kurashiki attraction
- Visa application
- Funding sponsors
- Contact us
- Topics
- Financial support
- Proceedings

Program

Tuesday 26, March 2013

14:00 - 16:00	**Registration**
16:00 - 16:10	**Welcome remark**
16:10 - 17:10	**Opening Plenary Lecture** Chair: Toru Fujiwara (The University of Tokyo, Japan) Understanding mechanisms of membrane traffic by live imaging Akihiko Nakano (The University of Tokyo/ RIKEN Advanced Science Institute, Japan)
18:00 - 20:00	**Welcome Party**

Wednesday 27, March 2013

8:45	Registration opens
9:00 - 10:45	**Session I: Structural physiology of membrane transport machinery** Chair: Masayoshi Maeshima (Nagoya University, Japan)
9:00 S1-1	Terminal regulatory domains of plant P-type pumps Michael G. Palmgren (University of Copenhagen, Denmark)
9:30 S1-2	Moving anions across the vacuolar membrane with CLCs Sebastien Thomine (Institut des Sciences du Vegetal CNRS, France)
10:00 S1-PO1	Vacuolar pH - who is in charge? Anne Kriegel (University of Heidelberg, Germany)
10:15 S1-PO2	The vacuolar type H+-PPase is the master regulator of cytosolic PPi omeostasis in Arabidopsis Ali Ferjani (Tokyo Gakugei University, Japan)
10:30 S1-PO3	Biochemical characterization and structure-function relationship of the plastidic nucleobase transporter PLUTO, a novel membrane protein in Arabidopsis thaliana Sandra Witz (TU Kaiserslautern, Germany)
10:45 - 11:15	Coffee break
11:15 - 13:00	**Session II: Membrane trafficking and protein targeting** Chair: Karin Schumacher (University of Heidelberg, Germany)
11:15 S2-1	The late prevacuole: last stop before the vacuole Jurgen Denecke (University of Leeds, UK)
11:45 S2-2	Mechanism and function of plant-unique membrane trafficking pathways Takashi Ueda (The University of Tokyo, Japan)
12:15 S2-PO1	Arabidopsis mutants with altered intracellular localization of a plasma membrane boric acid channel Junpei Takano (Hokkaido University, Japan)

10:30 S5-PO3	AtABCA9 transporter supplies fatty acids for lipid synthesis to the endoplasmic reticulum Youngsook Lee (POSTECH, South Korea)
10:45 - 11:15	Coffee break
11:15 - 12:45	**Session VI: Aquaporin** Chair: Katsuhiro Shiratake (Nagoya University, Japan)
11:15 S6-1	The role of aquaporins in cellular osmoregulation Per Kjellbom (Lund University, Sweden)
11:45 S6-2	Emerging functions of aquaporins in Arabidopsis Christophe Maurel (CNRS/ INRA, France)
12:15 S6-PO1	New insights into aquaporin function and regulation Francois Chaumont (Universite Catholique de Louvain, Belgium)
12:30 S6-PO2	Identification of tonoplast aquaporins in chloroplast membranes with role in photosynthesis Azeez Beebo (University of Gothenburg, Sweden)
13:00 - 14:00	**Lunch & Workshop 1: New insights into LRR-receptor kinase** Chair: Yoshikatsu Matsubayashi (National Institute for Basic Biology, Japan)
13:00 W1-1	The twists and turns of plant membrane signalling Michael Hothorn (The Max Planck Society, Germany)
13:30 W1-2	Biochemical challenges to identify peptide hormone-LRR receptor pairs in plants Hidefumi Shinohara (National Institute for Basic Biology, Japan)
14:00 - 15:30	Poster viewing (Odd number)
15:30 - 16:00	Coffee break
16:00 - 17:45	**Session VII: Stomatal movement and physiology** Chair: Toshinori Kinoshita (Nagoya University, Japan)
16:00 S7-1	Light-induced stomatal movement and signaling Ken-ichiro Shimazaki (Kyushu University, Japan)
16:30 S7-2	Guard cell CO2 and abscisic acid signal transduction in plants Julian I. Schroeder (University of California San Diego, USA)
17:00 S7-PO1	SCAP1, a master regulator of the development of functional stomata in Arabidopsis Juntaro Negi (Kyushu University, Japan)
17:15 S7-PO2	Ozone-triggered rapid stomatal response involves production of reactive oxygen species and is controlled by SLAC1 Triin Vahisalu (University of Tartu, Estonia)
17:30 S7-PO3	An ABA transporter (ABCG40) interacting MAP 3 kinase regulates ABA responses Jae-Ung Hwang (POSTECH, South Korea)
17:45 - 18:15	Coffee break
18:15 - 20:00	**Session VIII: Signaling network for modulating membrane transport** Chair: Sheng Luan (UC Berkeley, USA)
18:15 S8-1	Guard cell autonomous ABA synthesis provide for low humidity stomatal closure Rainer Hedrich (University Wuerzburg, Germany)
18:45 S8-2	Protein kinase-phosphatase network in ion channel regulation Sheng Luan (University of California Berkeley, USA)
19:15 S8-PO1	The brassinosteroid, clavata 3, and endogenous immune peptide receptors activate signaling cascades through cytosolic calcium elevation Gerald Berkowitz (University of Connecticut, USA)
19:30 S8-PO2	Control mechanism of osmotic stress response and plant growth by potassium transporters in Arabidopsis Yuriko Osakabe (RIKEN, Japan)
19:45 S8-PO3	Regulation of the weakly voltage gated potassium channel AKT2 Kamil Sklodowski (Max-Planck-Institute, Germany)
Friday 29, March 2013	
8:45	Registration opens

S5-P12 A Medicago truncatula ABC transporter belonging to subfamily G modulates the level of isoflavonoids
Jasinski M, Banasiak J, Biala W, Staszkow A, Swarcewicz B, Figlerowicz M

S5-P13 Characterisation of candidate Glycine max symbiosome membrane proteins
Brear EM, Qu Y, Clarke V, Loughlin P, Chen L, Overall R, Day D, Smith P

S5-P14 The basis for differences in substrate specificity between type I and II sucrose transporters
Reinders A, Sun Y, Karvonen KL, Ward JM

S5-P15 Analysis of a MATE-type transporter in cultured cells of Coptis japonica
Takanashi K, Yamada Y, Sato F, Yazaki K

S5-P16 AtALMT3 is a malate transporter induced in roots of phosphorus deficient Arabidopsis thaliana
Maruyama H, Sasaki T, Wasaki J

S5-P17 Functional characterisation of Sorghum bicolor sucrose transporters
Milne RJ, Byrt CS, Reinders A, Ward JM, Patrick JW, Grof CPL

Session VI Aquaporin

S6-PO1 New insights into aquaporin function and regulation
Chaumont F, Aloui A, Berny MC, Besserer A, Bienert GP, Chevalier AS, Hachez C, Heinen R, Jeanguenin L, Pou Mir A, Reinhardt H

S6-PO2 Identification of Tonoplast Aquaporins in Chloroplast Membranes with Role in Photosynthesis
Beebo A, Bouhidel K, Schoefs B, Spetea C

S6-P3 Plant aquaporin endomembrane trafficking and dynamics
Wudick MM, Li X, Valentini V, Geldner N, Chory J, Lin J, Maurel C, Luu DT

S6-P4 Extensive and transient gene expression enhancement of the plasma

S9-P11 Identification of interactants of the plant natriuretic peptide hormone AtPNP-A
Turek I, Gehring C

Session X Membrane lipids - membrane domains and role in transporter function

S10-PO1 FAX1, a novel membrane protein in the chloroplast inner envelope involved in export of fatty acids and/ or derivatives
Soll J, Li N, Guegel IL, Philippar K

S10-PO2 Remorin, a plant phosphorylated protein located in membrane rafts, involved in virus propagation
Mongrand S, Perraki A, Germain V, Bayer E, Mechia M, Binagni M, German S, Zelada A

S10-P3 The crucial role of phosphatidic acid phosphohydrolases PAH1/PAH2 in triacylglycerol accumulation in leaves
Shimojima M, Madoka Y, Yamamichi K, Koizumi R, Ohta H

S10-P4 Spatial organization of tobacco cell plasma membrane: characterization, and modulation upon elicitation
Gerbeau-Pissot P, Der C, Anca I, Grosjean K, Thomas D, Roche Y, Perrier-Cornet JM, Mongrand S, Kervrann C, Simon-Plas F

S10-P5 Membrane microdomains in the plant vacuole
Yoshida K, Ohnishi M, Fukao Y, Okazaki Y, Hayashi F, Fujiwara M, Nakanishi Y, Song C, Saito K, Suzaki T, Shimmen T, Fukaki H, Maeshima M, Mimura T

Session XI Abiotic stress (drought, salt, pathogens), environmental homeostasis and membrane signaling

S11-PO1 Gene functional analysis of ABC transporter AtABCG25 in stress responses
Kuromori T, Sugimoto E, Shinozaki K

S11-PO2 GABA-gated anion channels in plants - they exist and have important

S12-P6 Transcriptional response of Medicago truncatula sulphate transporters to arbuscular mycorrhizal symbiosis with and without sulphur stress
Wipf D, Gallardo K, Casieri L

S12-P7 Sugar Transporter and Aquaporin genes in Tomato
Akiyama M, Azuma M, Yasuda T, Mori C, Nashima K, Aoki K, Shibata D, Siratake K

S12-P8 The phosphate transporter OsPht1;8 is responsible for phosphate translocation from old leaves to young leaves in rice
Li Y

S12-P9 Role of sucrose transporter NtSUT1 in growth under normal and aluminum stress in BY-2 tobacco cell line
Sameeullah M, Sasaki T, Yamamoto Y

S12-P10 AtCLCa is involved in I- transport into vacuoles
Kuribayashi M, Kato S, Shimoyama T, Watanabe A, Yoshida S, Sekimoto H, Thomine S, Filleur S, Takahashi M

S12-P11 Regulation of glucosinolate transport
Jorgensen ME, Madsen SR, Nour-Eldin HH, Geiger D, Hedrich R, Halkier BA

S12-P12 Increase the tolerance of rice to low iron availability in calcareous soils for improvement of crop yield
Nishizawa NK, Shimochi E, Masuda H, Hamada T, Kobayashi T

S12-P13 Expression and function of two potassium transporters, OsHAK1 and OsHAK5 in rice
Yang T, Hu Y, Chen L, Chen G, Xu G, Yu L

Session XIII Omics for transporter study

S13-PO1 Comparison of bundle sheath and mesophyll cells transcriptomes in both well-watered and water-deficient Arabidopsis (C3) plants: transport protein genes
Wigoda N, Moshelion M, Pasmanik-Chor M, Moran N