The 23rd International Symposium on Plant Lipids (Yokohama, ISPL2018)

Scientific Program

Sunday, July 8

16:00-19:00 **Registration**

17:00-20:00 **Opening Reception**

Monday, July 9

8:00-10:00 **Registration**

8:40-9:00 **Conference Welcome**

Session 1: Fatty Acids and Glycerolipids

Chair: **Eric Maréchal** (Université Grenoble Alpes)

9:00-9:30 Keynote Speaker: **Juliette Jouhet** (CNRS/Univ. Grenoble Alpes)
Molecular dynamics simulations highlight how DGDG atomic-scale interactions contribute to the 3D-architecture of thylakoids

9:30-9:50 **Koichi Kobayashi** (Osaka Prefecture University)
Roles of MGDG and DGDG in etioplasts of dark-grown Arabidopsis

9:50-10:10 **Yuki Nakamura** (Academia Sinica)
Phosphocholine biosynthesis and vascular development in Arabidopsis

10:10-10:30 Coffee Break
Sponsored by The Plant Cell

10:30-10:50 **Edgar Cahoon** (University of Nebraska-Lincoln)
Discontinuous elongation results in novel fatty acid hydroxylation

10:50-11:10 **Anh H. Ngo** (Academia Sinica)
A pair of non-specific phospholipases C, NPC2 and NPC6, is involved in gametophyte development and glycerolipid metabolism in Arabidopsis

11:10-11:30 **Wei Ma** (Nanyang Technological University)
TCP transcription factors regulate plant oil production via interaction with WRINKLED1

Special Lecture 1: Recent Advances in Imaging of Plant Lipids

Chair: **Ivo Feussner** (University of Goettingen)

11:30-12:10 Speaker: **Kent D. Chapman** (University of North Texas)
Imaging and high-resolution analysis of plant lipids

12:10-13:30 **Lunch**
(International Advisory Board Member Meeting)

Session 2: Lipid Trafficking and Channeling

Chair: **Changcheng Xu** (Brookhaven National Lab.)

13:30-14:00 Keynote Speaker: **Christoph Benning** (Michigan State University)
Proteolytic regulation of lipid movement in the chloroplast envelope membranes

14:00-14:20 **Rosa Laura López-Marqués** (University of Copenhagen)
The Arabidopsis flippase ALA2 is involved in prevacuolar compartment dynamics and plant pathogen responses

14:20-14:40 **Mee-Len Chye** (University of Hong Kong)
A class III acyl-CoA-binding protein affects fatty acid composition in the phloem

14:40-15:00 **Juntaro Negi** (Kyushu University)
Stomatal guard cells exhibit a unique lipid metabolism essential for functional chloroplasts to sense CO_2 and light signals

15:00-15:20 Coffee Break

Session 3: Secondary Metabolic Lipids – The 375th RISH Symposium

Co-organized by Research Institute for Sustainable Humanosphere, Kyoto University

Chair: **Kazufumi Yazaki** (Kyoto University)

15:20-15:50 Keynote Speaker: **Alain Hehn** (Université de Lorraine-INRA)
Biosynthesis of furanocoumarins, lipophilic phenolic metabolites, in plants

15:50-16:10 **Makoto Kawamukai** (Shimane University)
Coenzyme Q biosynthesis and application in yeasts and plants

16:10-16:30 **Peter Dörmann** (University of Bonn)
The role of phytol phosphorylation during tocopherol synthesis in Arabidopsis

16:30-16:50 **Kazufumi Yazaki** (Kyoto University)
Shikonin production of *Lithospermum erythrorhizon*, a model system of secondary metabolic lipids in plants

16:50-17:10 **Seiji Takahashi** (Tohoku University)
In vitro natural rubber biosynthesis by prenyltransferases introduced on rubber particles from *Hevea brasiliensis*

Poster Session 1

17:20-18:10 Even number

18:10-19:00 Odd number

Tuesday, July 10

Session 4: Lipids and Environment

Chair: **Mee-Len Chye** (University of Hong Kong)

9:00-9:30 Keynote Speaker: **Thorsten Nürnberger** (University of Tübingen)
Eudicot plant-specific glucosylinositol phosphorylceramides determine host sensitivity to a widespread pore-forming microbial toxin

9:30-9:50	**Susanne Hoffmann-Benning** (Michigan State University) Lipids on the move: Evidence for a role of phosphatidic acid in long-distance stress signaling
9:50-10:10	**Kirstin Feussner** (University of Goettingen) Non-targeted *ex vivo* metabolome analysis identifies endogenous substrates of the JAR1 and LiLOX
10:10-10:30	**Susana Silvestre** (Rothamsted Research) A high-throughput fluorescence screen for the characterisation of cold-responsive lipid gene candidates
10:30-10:50	Coffee Break
10:50-11:10	**Yasuhiro Higashi** (RIKEN) An Arabidopsis lipase gene is involved in remodeling chloroplastic glycerolipids in leaves under heat stress
11:10:11:30	**Xiao-Li Tan** (Jiangsu University) An Arabidopsis GDSL lipase gene confers *Sclerotinia sclerotiorum* resistance in *Brassica napus*
11:30-11:50	**Yueyun Hong** (Huazhong Agricultural University) Cytidinediphosphate-diacylglycerol synthase 5 is required for phospholipid homeostasis and is negatively involved in hyperosmotic stress tolerance
11:50-12:10	**Jun'ichi Mano** (Yamaguchi University) Reactive carbonyl species modulate hormone signals in plants
12:10-13:30	**Lunch**

Session 5: Lipid Droplets and Oleosomes

Chair: **Yonghua Li-Beisson** (CNRS/Aix-Marseille University)

13:30-14:00 Keynote Speaker: **Changcheng Xu** (Brookhaven National Lab.)
Dual role for autophagy in lipid metabolism in Arabidopsis

14:00-14:20 **Josselin Lupette** (CNRS/Univ. Grenoble Alpes)
Development, architecture, and dynamics of lipid droplets in the pennate diatom *Phaeodactylum tricornutum*

14:20-14:40 **Hyun Uk Kim** (Sejong University)
MYB96 transcription factor regulates triacylglycerol biosynthesis

14:40-15:00 **Hideya Fukuzawa** (Kyoto University)
A protein kinase, TAR1, triggers accumulation of triacylglycerol in nitrogen-deficient conditions in *Chlamydomonas reinhardtii*

15:00-15:20 Coffee Break

15:20-15:40 **Chinedu Charles Nwafor** (Huazhong Agricultural University)
Genetic and biochemical investigation of sources of reducing power required for fatty acid biosynthesis in seeds

15:40-16:00 **Takashi L. Shimada** (Chiba University)
Regulation of plant sterol homeostasis by HIGH STEROL ESTER1 and sterol ester bodies

Session 6: Sphingolipids

Chair: **Thorsten Nürnberger** (University of Tübingen)

16:00-16:30 Keynote Speaker: **Sébastien Mongrand** (CNRS/ Univ. Bordeaux)
Plant plasma membrane lipids: Role of sphingolipids in interdigitation of membrane leaflets, lipid asymmetry and nanodomain formation

16:30-16:50 **Nan Yao** (Sun Yat-sen University)
Sphingolipids facilitate adaptation to environmental stresses by promoting autophagy in Arabidopsis

16:50-17:10 Coffee Break

17:10-17:30 **Toshiki Ishikawa** (Saitama University)
The evolutionary journey of plant-unique long-chain base unsaturation

17:30-17:50 **Frank Waller** (Julius-Maximilians-University Wuerzburg)
Are phosphorylated sphingobases antagonizing plant cell death induced by phytosphingosine or Fumonisin B_1?

17:50-18:10 **Ivo Feussner** (University of Goettingen)
Cold-induced changes in the lipidome of *Physcomitrella patens*

18:10-18:30 **Nicolas Esnay** (CNRS/University of Bordeaux)
Lipid crosstalk at *trans*-Golgi network: A two tales story

Wednesday, July 11

Session 7: Algae and Microbial Lipids

Co-organized by Program on Open Innovation Platform with Enterprises, Research Institute and Academia

Chair: **Hiroyuki Ohta** (Tokyo Institute of Technology)

9:00-9:30 Keynote Speaker: **Yonghua Li-Beisson** (CNRS/Aix-Marseille Univ.)
Increasing lipid productivity in microalgae: Importance of interaction between lipid catabolism and chloroplast metabolism

9:30-9:50 **Eric Maréchal** (Université Grenoble Alpes)
Discovery of systems controlling triacylglycerol in diatoms, using biologically annotated drugs

9:50-10:10 **Naoki Sato** (University of Tokyo)
Algal lipids and endosymbiotic theories: A case study of *Paulinella*

10:10-10:30 **Fred Domergue** (CNRS/Univ. Bordeaux)
Novel plastidial cytochrome-b_5 fused-fatty acid desaturases from the green marine pico-eukaryote *Ostreococcus tauri*

10:30-10:50 Coffee Break

10:50-11:10 **Fabrice Rébeillé** (CNRS/Université Grenoble Alpes)
Lipid dynamics and ecophysiology of a marine protist (*Auriantiochytrium limacinum*) involved in the decomposition of mangrove leaves

11:10-11:30 **Georg Hölzl** (University of Bonn)
Novel insights into the bacterial origin of plant monogalactosyldiacylglycerol and digalactosyldiacylglycerol synthases

Special Lecture 2: Frontiers in Animal Membrane Biology

Supported by The Naito Foundation

Chair: **Kent Chapman** (University of North Texas)

11:30-12:10 Speaker: **Katharina Gaus**（University of New South Wales）
T cell receptor clustering – a mechanism of signal transduction

12:30-19:00 **Excursion**

Thursday, July 12

Session 8: Extracellular Lipids and Isoprenoids

Chair: **Peter Dörmann** (University of Bonn)

9:00-9:30 Keynote Speaker: **Ljerka Kunst** (University of British Columbia)
Post-translational regulation of cuticular wax biosynthesis in *A*. *thaliana*

9:30-9:50 **Christiane Nawrath** (University of Lausanne)
Structure and function of the cuticle at the root cap of the young primary root and emerging lateral root

9:50-10:10 **Mi Chung Suh** (Chonnam National University)
The Arabidopsis SAGL1 E3 ligase and ECERIFERUM3 module regulates cuticular wax biosynthesis in response to humidity

10:10-10:30 **Shiu-Cheung Lung** (University of Hong Kong)
Arabidopsis ACYL-COA-BINDING PROTEIN1 interacts with STEROL C4-METHYL OXIDASE1 to control sterol synthesis and lipid signaling

10:30-10:50 Coffee Break

10:50-11:10 **Jérôme Joubès** (Bordeaux University)
Functional characterization of CER1 proteins involved in the biosynthesis of cuticular VLC-alkanes in Arabidopsis

11:10:11:30 **Toshiya Muranaka** (Osaka University)
Phosphorylation dependent regulation of the *Arabidopsis thaliana* HMG-CoA reductase

Special Lecture 3: Frontiers in Animal Membrane Biology

Co-organized by Program on Open Innovation Platform with Enterprises, Research Institute and Academia

Chair: **Takashi Aoyama** (Kyoto University)

11:30-12:10 Speaker: **Masato Umeda** (Kyoto University)
Phospholipid flip-flop as a molecular switch for ion channel activation

12:10-13:30 **Lunch**

Terry Galliard Medal Lecture:

Chair: **Ljerka Kunst** (University of British Columbia)

13:30-14:15 Speaker: **Hiroyuki Ohta** (Tokyo Institute of Technology)
“Monogalactosyldiacylglycerol or Triacylglycerol”: That is the question

Paul Stumpf Award Lecture:

Chair: **Christoph Benning** (Michigan State University)

14:15-14:40 Speaker: **Patrick Horn** (Michigan State University)
Elucidating the biochemistry of the most abundant *trans* fatty acid produced in plants

14:40-15:00 Coffee Break

Session 9: Application of Genome-Editing Technology

Co-organized by Program on Open Innovation Platform with Enterprises, Research Institute and Academia

Chair: **Surinder Singh** (CSIRO)

15:00-15:30 Keynote Speaker: **Eric Moellering** (Synthetic Genomics Inc.)
Advancing genomic solutions in algae biofuels and bioproducts

15:30-15:50 **Richard Thomas Smith** (Rothamsted Research)
Augmented biosynthesis of omega-3 long-chain polyunsaturated fatty acid through CRISPR-Cas9 mediated knock-out of Delta-9 desaturase in marine diatom *Phaeodactylum tricornutum*

15:50-16:10 **Tomokazu Kurita** (Hiroshima University)
Highly efficient genome editing using Platinum TALENs in oleaginous microalga, *Nannochloropsis*

Poster Session 2

16:20-17:10 Odd number

17:10-18:00 Even number

19:00-21:00 **Banquet**

Friday, July 13

Session 10: Lipid Biotechnology

Chair: **Eric Moellering** (Synthetic Genomics Inc.)

9:00-9:30 Keynote Speaker: **Surinder Singh** (CSIRO)
Realising the potential of metabolic engineering: Innovation in oilseed crops

9:30-9:50 **Liang Guo** (Huazhong Agricultural University)
Genetic dissection and improvement of seed oil biosynthesis in *Brassica napus*

9:50-10:10	**Mark Smith** (Saskatoon Research Centre) Discovery and use of a novel fatty acid elongation pathway to engineering gondoic acid production in seeds of camelina (*Camelina sativa*)
10:10-10:30	**Kamil Demski** (UG & MUG) Exploring differing profiles of *Bn*DGAT2 isoforms substrate specificity
10:30-10:50	Coffee Break
10:50-11:10	**Thomas Vanhercke** (CSIRO) Upregulation of lipid biosynthesis pathways increases the oil content in leaves of *Sorghum bicolor*
11:10:11:30	**Sumie Ishiguro** (Nagoya University) Alkane production in Arabidopsis plants and cultured tobacco cells expressing alkane biosynthetic enzymes from *Nymphaea* sp.
11:30-11:50	**Per Hofvander** (Swedish University of Agricultural Sciences) Insect pheromone precursors in Camelina oil and their use in chemical conversion for pest management
11:50-12:10	**Tatsuo Omata** (Nagoya University) Development of the technology essential for sustainable production of free fatty acids as the source of biofuels using engineered cyanobacteria
12:10-12:40	**Concluding Remarks**
12:40-14:00	**Lunch and Farewell**

Poster Presentations

PO-1: **Ze-Hua Guo** (University of Hong Kong)
Interactions between rice ACYL-COA-BINDING PROTEIN and acyl-CoA esters revealed by X-ray diffraction analysis

PO-2: **Masato Abe** (Ehime University)
Organic synthesis of phosphatidylglycerol analogues and their effects on the growth of *pgsA* mutant of PCC 6803

PO-3: **Pai-Hsiang Su** (Academia Sinica)
Plastidial type I DnaJs are essential for endosperm chloroplast biogenesis and important for lipid deposition

PO-5: **Kotaro Tatsumi** (Saitama University)
Mating based split ubiquitin (mbSUS) assays detect a weak molecular interaction between *Chlamydomonas* GPAT and LPAAT in yeast cells

PO-6: **Katsuharu Saito** (Shinshu University)
Glycerol-3 phosphate dehydrogenase GPDH3 is required for arbuscule formation in *Lotus japonicus*

PO-7: **Zhongze Li** (Chinese Academy of Sciences)
Cloning and characterization of a gene encoding plastidic lysophophatidic acyltransferase in the unicellular green alga *Chlamydomonas reinhardtii*

PO-8: **Pushkar Shrestha** (CSIRO)
Identification of DHA-specific lysophosphatidic acid acyltransferase and its use for increasing DHA production in seed oil

PO-9: **Ying-Chen Lin** (Academia Sinica)
An involvement of *CHOLINE/ETHANOLAMINE KINASE 1* (*CEK1*) during endoplasmic reticulum stress in *Arabidopsis thaliana*

PO-10: **Yuki Sato** (Saitama University)
The CDP-choline pathway to phosphatidylcholine biosynthesis is essential for pollen maturation in *Arabidopsis thaliana*

PO-11: **Simon Jeppsson** (Swedish University of Agricultural Sciences)
Characterisation of *Crambe abyssinica* DGAT

PO-12: **Tomoko Hatanaka** (Kobe University)
Highly active *Vernonia galamensis* DGAT1 can effectively increase oil levels in yeast, soybean and Arabidopsis

PO-13: **Masatake Kanai** (National Institute for Basic Biology)
Triacylglycerol lipase “SDP1” controls seed oil content and fatty acid composition in soybean

PO-14: **Jaruswan Warakanont** (Kasetsart University)
CrLIP4 plays a role in triacylglycerol degradation in *Chlamydomonas reinhardtii*

PO-15: **Manuel Adrian Troncoso-Ponce** (Sorbonne Universités)
Lipid synthesis in linseed: Metabolomic and fluxomic

PO-16: **Souvik Mitra** (Darjeeling Government College)
Unusual composition of fatty acids and fatty acid derived volatile oxylipins in *Anisothecium spirale* (Mitt.) broth., a moss from Eastern Himalayas and their biological significance

PO-17: **Kohji Nishimura** (Shimane University)
Lipid binding property of EPSIN N-TERMINAL HOMOLOGY domain of Arabidopsis MODIFIED TRANSPORT TO THE VACUOLE1 (MTV1)

PO-18: **Han-Jung Kuo** (National Taiwan University)
The functional study of lipid transfer proteins in tobacco hairy root growth

PO-19: **Takashi Aoyama** (Kyoto University)
Functions of Arabidopsis type-B phosphatidylinositol phosphate 5-kinase genes in plant growth and development

PO-20: **Ryosuke Tadakuma** (Kyushu University)
Enhancement of the “prokaryotic” lipid metabolic pathway rescues the achlorophyllous stomata phenotype of Arabidopsis *gles1* mutants

PO-21: **Lin-Bo Liu** (Lanzhou University)
Expression of *ZxABCG11* from *Zygophyllum xanthoxylum* confers enhanced drought tolerance in Arabidopsis

PO-22: **Yolande Perrin** (University of Technology of Compiegne)
New insights into the metabolic pathways of oil synthesis in three oilseed crops using carbon-14 radiolabeling

PO-23: **Yves Poirier** (University of Lausanne)
Deficiency in biotin synthesis is the cause of the embryo lethality of mutants in the β-oxidation multifunctional proteins

PO-24: **Kosaku Takahashi** (Hokkaido University)
A series of enzymatic reactions of LOX, AOS and AOC synthesize amino acid conjugates of 12-oxo-phytodienoic acid (OPDA) from amino acid conjugates of α-linolenic acid

PO-25: **Satoshi Mochizuki** (Yamaguchi University)
Calcium ion activates Arabidopsis lipoxygenase 2 to induce oxylipin-burst

PO-26: **Rebecca S. Kalinger** (Carleton University)
Functional characterization of medium-chain acyl-lipid thioesterases from diverse plant taxa

PO-27: **Kenji Matsui** (Yamaguchi University)
A glycoside of 1-octen-3-ol in soybean (*Glycine max* L. Merr.)

PO-28: **Hiroaki Kusano** (Kyoto University)
A study for taxoid biosynthesis in yew suspension cultured cells

PO-29: **Hayato Ueoka** (Kyoto University)
Characterization of cytosol-localized geranyl diphosphate synthase in *Lithospermum erythrorhizon*

PO-30: **Motohide Aoki** (Tokyo University of Pharmacy and Life Sciences)
Lipid profiling of a cyanobacteria *Synechocystis* sp. PCC 6803 exposed to hazardous chemicals and pharmaceutical and personal care products

PO-31: **Mai Uzaki** (Kobe University)
Analysis of lipids accumulated in laticifer and idioblast cells in *Catharanthus roseus*

PO-32: **Takuji Ichino** (Kyoto University)
Molecular basis for secretory trafficking of lipophilic metabolites shikonin derivatives in a medicinal plant *Lithospermum erythrorhizon*

PO-33: **Kanade Tatsumi** (Kyoto University)
Lipid molecules concomitantly secreted with shikonin, a lipophilic secondary metabolite, produced in *Lithospermum erythrorhizon*

PO-34: **Artik Elisa Angkawijaya** (Academia Sinica)
Role of *Arabidopsis thaliana* LPAT family in stress response

PO-35: **Yushi Yoshitake** (Tokyo Institute of Technology)
Plant response to the phosphate starvation under various nitrogen- controlled conditions

PO-36: **Ikuo Nishida** (Saitama University)
The CDP-choline pathway to phosphatidylcholine biosynthesis is required for the maintenance of endoplasmic reticulum at low temperature

PO-37: **Chao-Yuan Yu** (Academia Sinica)
Identification of novel mediators that link phosphoinositide signaling and endoplasmic reticulum stress response

PO-38: **Yozo Okazaki** (RIKEN-CSRS)
Arabidopsis *sqd2* mutants which show a growth defects under phosphorus limitation are deficient in a new lipid class, acyl GlcADG

PO-39: **Isabell Albert** (ZMBP Plant Biochemistry)
Eudicot-specific sphingolipids determine host selectivity of microbial NLP cytolysins

PO-40: **Tomohiro Ban** (Yokohama City University)
KODA, 9,10-ketol-octadecadienoic acid extracted from duckweed mediated resilience effect on wheat growth to the adverse environment

PO-41: **Amanda Koenig** (Michigan State University)
Role of lipid-binding proteins involved in lipid-mediated signaling of abiotic stress

PO-42: **Tino Kreszies** (University of Bonn)
Water deficit enhances suberization of apoplastic barriers in barley seminal roots: Analysis of chemical, transcriptomic and physiological responses

PO-43: **Kaoru Urano** (RIKEN-CSRS)
A novel AP2/ERF transcription factor controls cuticular wax formation during dehydration response

PO-44: **Victoria Kreszies** (University of Bonn)
The role of tocopherol during drought stress in Arabidopsis: Does ABA regulate tocopherol biosynthesis?

PO-45: **Yi-Tse Liu** (University of Goettingen)
New insights into phosphate-containing sphingolipids by a LC/MS-based lipidomics platform

PO-46: **Kenji Nagata** (University of Tokyo)
Positional signaling mediated by specific sphingolipids in Arabidopsis

PO-47: **Hiroyuki Imai** (Konan University)
Identification of phytoceramide 1-phosphate and its producing enzyme in plants

PO-48: **Seigo Usuki** (Hokkaido University)
Konjac Ceramide (kCer) inhibits neurite outgrowth and cell migration via Sema3A-like action

PO-49: **Agnieszka Zienkiewicz** (University of Goettingen)
Loss of neutral ceramidases triggers ceramide accumulation and programmed cell death in Arabidopsis leaves

PO-50: **Minoru Nagano** (Ritsumeikan University)
The role of sphingolipids in the dynamics of plasma membrane in plants

PO-51: **Masaya Sato** (Saitama University)
Sphingolipid Δ8 cis/trans unsaturation increases aluminum tolerance in rice

PO-52: **Seungjun Shin** (POSTECH)
A transcription factor important for the unfolded protein response in *Chlamydomonas reinhardtii*

PO-53: **Bae Young Choi** (POSTECH)
Biosynthesis of pinolenic acids is necessary to maintain cell viability during ER stress in *Chlamydomonas reinhardtii*

PO-54: **Yasuyo Yamaoka** (POSTECH)
Chlamydomonas reinhardtii CrIRE1 knockdown mutants are arrested in growth and accumulate lipid droplets under ER stress

PO-55: **Sunghoon Jang** (POSTECH)
A putative lipid transporter CrABCA involved in triacylglycerol accumulation under nitrogen deprivation condition

PO-56: **Jihyeon Lee** (POSTECH)
Identification of a gene required for triacylglycerol hydrolysis during lipid re-mobilization in *Chlamydomonas reinhardtii*

PO-57: **Masataka Kajikawa** (Kyoto University)
Production of ricinoleic acid-containing monoestolide triacylglycerides in an oleaginous diatom, *Chaetoceros gracilis*

PO-58: **Kumiko Okazaki** (Hiroshima University)
Effects of phosphorus concentration on the growth and triacylglycerol accumulation in *Nannochloropsis*

PO-59: **Natsumi Mori** (University of Tokyo)
Do cyanobacteria synthesize triacylglycerol?

PO-60: **Krzysztof Zienkiewicz** (University of Goettingen)
Diacylglycerol acyltransferases of *Lobosphaera incisa*: An update on molecular, functional and cellular nature

PO-61: **Kaori Oyama** (Ochanomizu University)
Functional study of diacylglycerol acyltransferases and triacylglycerol biosynthesis from *Pseudochoricystis ellipsoidea*

PO-62: **Guanqun Chen** (University of Alberta)
Characterization of type-2 diacylglycerol acyltransferases in green microalga *Haematococcus pluvialis*

PO-63: **Egi Tritya Apdila** (Shizuoka University)
MGDG and DGDG are essential but not depend on their synthetic pathways in *Synechococcus elongatus* PCC 7942

PO-64: **Nobuyuki Takatani** (Nagoya University)
Deacylation of membrane lipids is induced by high-light or low-temperature stress in *Synechococcus elongatus* PCC 7942

PO-65: **Inna Khozin-Goldberg** (Ben-Gurion University of the Negev)
New insights into the role of LC-PUFA in *Lobosphaera incisa* revealed by the comparative mutant analysis

PO-66: **Yutaro Oishi** (Tokyo University of Pharmacy and Life Sciences)
Triacylglycerol accumulation in a green alga, *Chlorella kessleri,* under arsenic stress conditions

PO-67: **Toru Yoshitomi** (University of Tokyo)
Hydrogel encapsulation triggers formation of palmelloid colonies and promotes lipid production in *Chlamydomonas debaryana* NIES-2212

PO-68: **Saeko Kaminaga** (University of Tokyo)
Acceleration of cell growth and lipid accumulation in palmelloid colonies of *Chlamydomonas debaryana* NIES-2212 encapsulated in alginate gel

PO-69: **Yonghua Li-Beisson** (CNRS/and Aix-Marseille University)
Fatty acid decarboxylation by a photoenzyme in *Chlamydomonas* and other microalgae

PO-70: **Nattiwong Pankasem** (University of Tsukuba)
Functional analysis of the plastidial desaturases from *Ostreococcus tauri* in *Synechocystis* sp. PCC 6803

PO-71: **Hiroki Murakami** (Tokyo Institute of Technology)
Molecular mechanism of betaine lipid synthesis in the marine microalga *Nannochloropsis oceanica*

PO-72: **Shiori Shibata** (Shizuoka University)
Energy flow determines contents of membrane and storage lipids in *Euglena gracilis*

PO-73: **Yousuke Komai** (Shimane University)
Identification and functional analysis of wax esterases in *Euglena gracilis*

PO-74: **Yuuki Ishii** (Shimane University, JST CREST)
Regulation mechanism of wax ester production in response to anaerobic conditions in *Euglena gracilis*

PO-75: **Naoki Morita** (AIST)
An efficient method for transformation of thraustochytrid microorganisms by utilizing glass beads

PO-77: **Kohei Yoneda** (University of Tsukuba)
The effect of vitamin B1 on the growth and fatty acid content in *Aurantiochytrium* sp.

PO-78: **Tomohito Mayumi** (University of Tsukuba)
Solubility of chlorophylls in algal oil

PO-79: **Hani Susanti** (University of Tsukuba)
Peat extract as promising media for algal lipid production

PO-81: **Anna Szakiel** (University of Warsaw)
Modifications of triterpenoid deposition in cuticular waxes during development and ripening of various fruits

PO-82: **Inyoung Kim** (Sejong University)
The role of fibrillin 2 under high-light stress

PO-83: **Kouji Kojima** (Tohoku University)
Production of natural rubber *in vitro* from reconstituted-rubber synthase complex on rubber particles with *Escherichia coli* cell-free translation system

PO-84: **Rafał Becker** (University of Warsaw)
Content of isoprenoids in epicuticular wax layer of scarlet hawthorn *Crataegus coccinea*

PO-85: **Isabel Molina** (Cornell University)
Genomic, chemical and functional analysis of leaf cuticle development in maize

PO-86: **Rui Guan** (Rothamsted Research)
A paralog of CER4 (BrCER4-like1) is required for branched fatty alcohols biosynthesis and the glaucous phenotype in *Brassica rapa*

PO-87: **Lifang Zhao** (University of British Columbia)
Investigating the biosynthetic pathways of cuticular wax in early land plants using the moss *Physcomitrella patens* as a model

PO-88: **Yuko Sasaki-Sekimoto** (Tokyo Institute of Technology)
Cuticular wax analyses of *Brassicaceae* by comprehensive two-dimensional gas chromatography

PO-89: **Milena Lewandowska** (University of Goettingen)
Wound-induced wax biosynthesis in *A. thaliana* leaves

PO-90: **Tegan M. Haslam** (University of British Columbia)
Exploring the physiological and evolutionary role of CER2-LIKE clade of the BAHD acyltransferase superfamily

PO-91: **Yoshimi Oshima** (AIST)
LATE MERISTEM IDENTITY2 regulates cuticle formation on the seed surface and participates in maintaining seed longevity

PO-92: **Hyojin Kim** (Chonnam National University)
DEWAX2 transcription factor negatively regulates cuticular wax biosynthesis in Arabidopsis leaves

PO-93: **Payal Patwari** (University of Bonn)
The role of WSD genes during drought stress in *Arabidopsis thaliana*

PO-94: **Larbi Rhazi** (T & A)
Phytosterols and tocopherols variability in linseed (*Linum usitatissimum*)

PO-95: **Dawei Li** (Shanghai Jiao Tong University)
Lipid metabolism and male sterility in rice

PO-96: **Calorina Elejalde** (University of Lausanne)
Characterization of ABCG32 function in cutin formation in tomato

PO-97: **Hiroshi Minami** (Hokkaido Mitsui Chemicals)
Evaluation for transformation of yew-cultured cell line

PO-98: **Mat Yunus Abdul Masani** (Malaysian Palm Oil Board)
Protoplast transformation system as a potential platform for genome editing in oil palm

PO-99: **Wiluk Chacuttayapong** (Shizuoka University)
The approach of increasing biofuel production in *Jatropha curcas* L. using agrobacterium-mediated transformation

PO-100: **Koyo Nakajima** (University of Miyazaki)
The regulation mechanism of SDP1 lipase mediated by polyphenol transport in *Sesamum indicum* L during seed germination

PO-101: **Shoji Mano** (National Institute for Basic Biology)
Identification and expression analysis of U6 promoters from caster bean

PO-102: **Yuki Fujiki** (Saitama University)
crc and *cra1 crb crc* equally have an additive effect of increasing seed oil content in Arabidopsis seeds overexpressing *BnDGAT1*

PO-103: **Yuqing Li** (Huazhong Agricultural University)
Regulation of seed oil accumulation by lncRNAs in *Brassica napus*

PO-104: **Katarzyna Jasieniecka-Gazarkiewicz** (UG & MUG)
Acyl-CoA:lysophosphatidylethanolamine acyltransferase (LPEAT) regulates plant growth and autophagy level

PO-105: **Michał Markowski** (University of Warsaw)
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PO-106: **Per Snell** (Swedish University of Agricultural Sciences)
WRINKLED1 is subject to evolutionary conserved negative autoregulation

PO-107: **Iwane Suzuki** (University of Tsukuba)
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PO-109: **Li-Hua Zhu** (Swedish University of Agricultural Sciences)
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PO-110: **Shan Tang** (Huazhong Agricultural University)
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PO-111: **Jingjing Xu** (Huazhong Agricultural University)
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PO-112: **Abang Masli Dayang Izawati** (ABBC)
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PO-114: **Ida Lager** (Swedish University of Agricultural Sciences)
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