



ISPL Terry Galliard Medal Nominations Coversheet

Name of Nominee: Antoni Banaś

Nominee's affiliation: Intercollegiate Faculty of Biotechnology, University of Gdańsk and Medical University of Gdańsk, Gdańsk 80-307, Poland.

Nomination:

It is our pleasure to nominate Dr. Antoni Banaś for the 2026 Terry Galliard Award. Dr. Banaś has a consistent record of scientific achievements throughout his career and his discoveries have led to major discoveries in the field of neutral glycerolipid assembly and acyl editing. Moreover Dr. Banaś has made significant contributions to our understanding of plant lipid biology in the areas of the synthesis and segregation of unusual fatty acids in seeds and wax biosynthesis. The important advances that Dr. Banaś has achieved in these diverse areas of plant lipid biology have been realized using mainly biochemical approaches strongly under-pinned, but not limited by molecular genetics and molecular biology.

Dr. Banaś important discoveries have broadened our understanding of lipid synthesis and transport in plants, and revealed novel mechanisms of membrane lipid turnover.

If Dr. Banaś is nominated, his lecture topic will be:

New insights into acyl transfer reactions of glycerolipids.

Dr. Banaś record of scientific achievement throughout his career has led to major breakthroughs in the field of plant membrane lipids, in fatty acid metabolism, as well as wax biosynthesis. These important discoveries have not only broadened our understanding of lipid membrane synthesis and transport in plants, but revealed novel mechanisms of membrane lipid turnover.

Professor Banaś has been actively involved in scientific research for nearly 50 years. Since 1987, his research concerned mainly the biochemistry and biotechnology of plant lipids. His involvement in the discovery of PDAT, but also PSAT and a new phospholipid remodeling pathway, had a particular impact on setting new directions in plant lipid research. In addition to his most important research achievements described below, he has also participated in numerous other studies related to plant lipid metabolism. These include studies on the characteristics of the enzymes involved in wax ester metabolism (acyl-CoA reductases, wax synthases and wax-ester specific lipases), studies on the metabolism of triacylglycerols (PDAT and DGAT type enzymes - their characteristics and role in various oil plants, lipases associated with TAG mobilization during germination), studies on the metabolism of phospholipids (LPCAT, LPEAT, LPAAT type acyltransferases - including newly discovered enzymes of this type found in diatoms - their biochemical characteristics and the role in the biosynthesis of triacylglycerols in various oil plants and their role in counteracting various types of stress). Dr. Banaś co-authored more than 110 articles many of them published in prestigious journals. He is also co-author of more than 200 conference presentations and co-inventor of 59 patents. Most of these publications and patents concern the biochemistry and biotechnology of lipids. He participated actively not only in several dozen ISPL, ESPL and other conferences concerned with plant lipids but he was as well the host of the 5th European Symposium on Plant Lipids in 2011.

His most important scientific achievements are:



- 1) Significant contribution to the discovery of PDAT enzymes (phospholipid:diacylglycerol acyltransferase) and the triacylglycerol biosynthetic pathway involving this enzyme. He performed most of the biochemical studies characterizing this enzyme and its physiological function in yeast and Arabidopsis. More recently he was involved in the identification and cloning of a novel acyltransferase enzyme in phosphatidylcholine synthesis in yeast and plants, GPCAT (glycerophosphocholine acyltransferase), which lacks any homology to known acyltransferases.
- 2) Main share in the discovery of PSAT enzymes (phospholipid:sterol acyltransferase) and the sterol ester biosynthetic pathway involving this enzyme. While characterizing Arabidopsis genes with homology to the yeast PDAT encoding gene, he determined that one of these genes encodes a previously uncharacterized enzyme that synthesizes sterol esters using phospholipids as fatty acid donors. He performed most of the characterization studies of this enzyme and its physiological function in plants.
- 3) Characterization of fatty acid acyltransferases and epoxidases, led in collaboration with molecular biologists to the cloning of both genes.
- 4) Together with his team, he made significant contributions to the characterization of phospholipid remodeling carried out by LPLAT enzymes (acyl-CoA:lysophospholipid acyltransferases) — including the description and proposal of a new phospholipid remodeling pathway called the "LPLAT pathway."
- 5) He demonstrated, with his research team, that PDAT, PSAT, and LPLAT acyltransferases (especially LPEAT—acyl-CoA: lysophosphoethanolamine) also exhibit growth regulating functions in plants.
- 6) He developed an alternative hypothesis for the mechanism of action of graminicides. The current hypothesis assumes that their phytotoxicity is caused by inhibition of fatty acid biosynthesis in grasses. However, his data rather suggest that promotion of free radical formation by graminicides may play a significant/primary role in the mode of action of these herbicides.



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Name of Nominee: Peter Dörmann

Nominee's affiliation: Institute of Molecular Physiology and Biotechnology of Plants (IMBIO)
Rheinische Friedrich-Wilhelms-Universität Bonn, Germany.

Nomination:

Professor Peter Dörmann's research is characterized by its breadth, high quality, and central importance for plant lipid research. Peter's soft-spoken nature belies a scientist with immense intellect and strong drive for discovery. During his 35 years as a plant lipid researcher, Peter has made seminal discoveries, largely focused on diverse but intersecting aspects of plastid lipid metabolism. Peter's work has been built on the strong foundation of training as a PhD student with Friedrich Spener and John Ohlrogge and as a postdoctoral fellow with Christoph Benning that led to his pioneering discoveries involving acyl-ACP thioesterase functional characterization and cloning of the gene for DGD synthase 1 (DGD1). Peter has been an independent investigator for the past 26 years as a Research Leader at Max Planck Institute (Potsdam) and as a Professor at the University of Bonn. He has >230 papers, many of which were published in top-tier journals, including *Science*, *Nature Biotechnol.*, *PNAS*, *eLife*, *Plant Cell*, *Nat. Chem. Biol.* with >21,700 citations. Peter has also advised 27 graduate students, a number of whom have taken positions in academia and industry. Peter has made the following major contributions to the advancement of plant lipid biology, through the exquisite combination of genetics, biochemistry, and lipidomics:

1. Galactolipid synthesis and function. Building on the map-based cloning of DGD1, the Dörmann lab identified DGD2 as a second DGDG synthase gene that supports extraplastidial membrane biogenesis during Pi deprivation. The Dörmann lab was also the first to demonstrate that the N-terminal extension of DGD1 is involved in DGDG transfer between the envelope membranes.

Dörmann P., Hoffmann-Benning S., Balbo I. and Benning C. (1995) *Plant Cell*, doi:10.1105/tpc.7.11.1801

Dörmann P., Balbo I. and Benning C. (1999) *Science*, doi:10.1126/science.284.5423.2181

Kelly A.A. and Dörmann P. (2002). *J. Biol. Chem.*, doi:10.1074/jbc.M110066200

Kelly A.A., Froehlich J.E. and Dörmann P. (2003) *Plant Cell*, doi:10.1105/tpc.016675

Kelly A.A. et al. (2016) *Proc. Nat. Acad. Sci. USA*, doi:10.1073/pnas.1609184113

2. Tocopherol/phytol metabolism and function. The Dörmann lab isolated the first tocopherol-deficient *Arabidopsis* mutant (*vte1*) and demonstrated that VTE1 encodes a cyclase involved in tocopherol biosynthesis. The Dörmann lab also identified kinase activities involved in the conversion of chlorophyll-derived phytol to phytol-P and phytol-PP for tocopherol biosynthesis (FOLK, farnesol/phytol kinase; VTE6, phytol-P kinase). The observation that the *vte5folk* and *vte6* mutants lack tocopherol indicated that tocopherol is formed from chlorophyll-derived phytol, but phylloquinone can be synthesized independently. The Dörmann lab showed that phytol released from chlorophyll is transiently esterified with fatty acids during chlorotic stress, and the



resulting phytol esters are degraded when growth conditions improve to provide fatty acids for membranes and phytol for chlorophyll biosynthesis. These findings were supported by identification of phytol ester synthase genes (PES1, PES2) and characterization of the corresponding mutants.

Porfirova S. et al. (2002) Proc. Natl. Acad. Sci. USA, doi:10.1073/pnas.182330899

Ischebeck T., Zbierzak A.M., Kanwischer M., Dörmann P. (2006) J. Biol. Chem., doi:10.1074/jbc.M509222200

Lippold F., et al. (2012) Plant Cell, doi:10.1105/tpc.112.095588

vom Dorp K., et al. (2015) Plant Cell, doi:10.1105/tpc.15.00395

Gutbrod P., et al. (2021, J. Biol. Chem., doi 10.1016/j.jbc.2021.100530

Romer J., et al. (2024) Plant Cell, doi:10.1093/plcell/koad316

3. The role of lipids in plant-microbe interactions. The Dörmann lab described the contributions of host plants for the supply of lipids to support mycorrhizal fungi and rhizobial bacterial colonization. The Dörmann lab made the seminal observation that the arbuscular mycorrhiza fungus lacks de novo fatty acid biosynthetic genes and identified host plant genes that supply lipid for colonization.

Keymer A., et al. (2017) eLife, doi:10.7554/eLife.29107.001

Bravo A., Brands M., Wewer V., Dörmann P., Harrison M. (2017) New Phytol., doi:10.1111/nph.14533

Brands M., Wewer V., Keymer A, Gutjahr C, Dörmann P. (2018) Plant J., doi:10.1111/tpj.13943

4. Lipid synthesis in cyanobacteria and marine bacteria. It was for a long time unclear whether cyanobacteria produce storage lipids. The Dörmann lab identified an acyltransferase gene related to plant PES1/PES2, which is crucial for TAG synthesis in *Synechocystis*. This acyltransferase displays broad substrate specificity because it also acylates phytol and different forms of plastoquinol.

Alcanivorax borkumensis is a marine bacterium that produces a biosurfactant and it degraded alkanes derived from oil spills. The Dörmann lab isolated the genes for biosurfactant biosynthesis and characterized the function of the biosurfactant using the corresponding *Alcanivorax* mutants.

Aizouq M. et al. (2020) Proc. Natl. Acad. Sci. USA, doi:10.1073/pnas.1915930117

Cui J. et al. (2022) Appl. Industr. Microbiol., doi:10.1128/aem.01126-22

Cui J. et al. (2025) Nat. Chem. Biol., doi:10.1038/s41589-025-01908-1

5. Lipidomics. The Dörmann lab operates a lipidomics platform with a focus on membrane lipids, lipid intermediates (isoprenyl-phosphates) and nonpolar lipids (TAG, sterols, phytol esters) from plants, bacteria and animals. The platform is frequently used by internal and external scientists.



Wewer et al. (2011) J. Lipid Res., doi:10.1194/jlr.D013987

Bartels D., Dörmann P. (2021) Plant Lipids, Methods and Protocols, doi:10.1007/978-1-0716-1362-7

Topic of Galliard Medal speech: Intersection of glycerolipid and prenylipid pathways in chloroplasts



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Name of Nominee: Peter Eastmond

Nominee's affiliation: Plant Sciences Department, Rothamsted Research, Harpenden, UK.

Nomination:

Professor Peter J. Eastmond is internationally recognised as a leading authority on plant lipid metabolism. He has the distinction of having made published contributions to our basic understanding of every metabolic pathway in the interconversion of sugars to triacylglycerol (i.e. glycolysis, fatty acid and glycerolipid synthesis, lipolysis, glycerol catabolism, fatty acid β -oxidation, the glyoxylate cycle and gluconeogenesis). His work has also had translational impact in the fields of metabolic engineering and crop improvement.

Peter's landmark discovery of SUGAR-DEPENDENT1 (SDP1) as the principal TAG lipase in Arabidopsis established the molecular basis of storage-oil hydrolysis, resolving a decades-old knowledge gap. His influential paper (Eastmond, 2006 Plant Cell) remains a foundational reference for lipid catabolism research and continues to be referenced across ISPL sessions. Other notable Arabidopsis genes characterised by Peter include PHOSPHATIDIC ACID PHOSPHOHYDROLASES, bZIP67, ACYL-ACYL CARRIER PROTEIN DESATURASES, ACYL-CoA OXIDASES, ISOCITRATE LYASE, PYRUVATE ORTHOPHOSPHATE DIKINASE, GLYCEROL KINASE, GLYCEROL-3-PHOSPHATE DEHYDROGENASE, MONODEHYDROASCORBATE REDUCTASE 4 & TREHALOSE-6-PHOSPHATE SYNTHASE 1.

Working in collaboration with Prof. Giles Oldroyd, Peter's group were also able to demonstrate conclusively that plants supply arbuscular mycorrhizal fungi with fatty acids and use an sn-2 GLYCEROL-3-PHOSPHATE ACYLTRANSFERASE dependent pathway that is activated by WRINKLED1 like transcription factors (Luginbuehl et al, 2017 Science). This work (along with contribution of others; notably Peter Dörmann) shifted the textbook paradigm that plants simply supply arbuscular mycorrhizal fungi with sugars.

Peter's group have also made several pioneering contributions in lipid metabolic engineering. These include (i) use of SDP1 to increase seed oil content, (ii) employing multigene strategies to enhance oil accumulation in seeds and vegetative tissues, using both transgenic and gene-editing approaches, and (iii) producing novel high value lipids such as 'structured triacylglycerols'. Peter's group were first to engineer plants and yeast to produce 'OPO', the infant formula fat ingredient (van Erp et al, 2019 PNAS; 2021; Bhunia et al, 2022). Multiple companies (e.g. Checkerspot, Yali Bio) have followed. Peter is also the first person to receive authorisation to market a precision bred (GE) crop under UK Genetic Technology Act 2023 with a lipid improvement trait in Barley.

Peter has supported the plant lipid community through his participation and/or organisation of ESPL, GRC and ISPL meetings over many years. He has served as a member of the ISPL international scientific committee for past ~10 years. He first attended ISPL as a PhD student 30 years ago (Toronto 1996). Many researchers in the wider lipid community have worked with Peter in the laboratory or benefited from his expertise through collaboration.



Peter obtained a BSc from University of Reading, UK (1991-94) and a PhD (1994-97; rapeseed metabolism) from University of East Anglia (John Innes Centre, UK). He was a postdoctoral researcher (beta-oxidation) and subsequently a BBSRC David Phillips Research Fellow (seed storage oil hydrolysis) at University of York, UK, before moving to University of Warwick, where he was an assistant professor. He was awarded Honorary Professorship at the University of Nottingham in 2012. In 2011, he relocated to Rothamsted Research (UK), where he has continued to address diverse challenges in plant and microbial lipid biochemistry.

Proposed Terry Galliard Lecture Topic: Unlocking Seed Oil Turnover: From Fundamental Pathways to the Engineering of High-Oil Crops.



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Name of Nominee: Yonghua Li-Beisson

Nominee's affiliation: Institut de Biosciences et Biotechnologies d'Aix-Marseille (BIAM) CEA Cadarache, France.

Nomination:

I am pleased to inform you that I would be delighted if you would consider the candidature of Dr. Yonghua Li-Beisson for the Terry Galliard Medal. In my humble opinion, Dr. Li-Beisson is a brilliant scientist who has made important contributions to our research field over the past years.

Summary of achievements

Dr. Yonghua Li-Beisson has devoted more than 25 years of her research career to studying lipid metabolism in a wide range of organisms, from oleaginous fungi to higher plants and microalgae. She has made major contributions to the understanding of the biosynthesis of plant lipid polyesters such as cutin and suberin, including the discovery of a plant-specific family of sn-2 glycerol-3-phosphate acyltransferases (sn-2 GPATs) and novel P450 fatty acid oxidases. More recently, her research has expanded to algal lipid metabolism, including the characterization of components of the malate shuttle and the identification of new lipid droplet-associated proteins.

Dr. Li-Beisson has authored more than 90 publications, primarily on plant and algal lipid metabolism, including papers in *Nature* (1), *Science* (2), *PNAS* (5), and *The Plant Cell* (4). In addition to her research contributions, she coordinated the efforts of 19 plant lipid laboratories to produce the highly cited book chapter "Acyl-Lipid Metabolism" and to develop the associated database Aralip, which remains one of the most widely used resources for lipid researchers. She has also authored influential review articles in journals such as *Progress in Lipid Research*, *Trends in Plant Science*, and *Current Opinion in Plant Biology*.

She contributed a chapter on "Chlamydomonas Lipid Metabolism" to *The Chlamydomonas Sourcebook*, the leading reference work on this model green alga. Dr. Li-Beisson is regularly invited to present plenary lectures at major plant lipid conferences, including Gordon Research Conferences, ISPL, ESPL, and ASPL meetings. She organized the 2018 Lipidomics Conference in France and the 9th European Symposium on Plant Lipids (2019), and she served as chair of the 2023 Gordon Research Conference on Plant Lipids.

Dr. Li-Beisson currently serves as Senior Editor for *Plant Cell and Physiology*, Reviewing Editor for *The Plant Cell*, and Advisory Board Member for *New Phytologist*. She leads a flagship microalgae research program at the French Atomic and Alternative Energies Commission (CEA) in Cadarache and teaches a course on algal lipid metabolism at Aix-Marseille University (France).

Highlights and major impact on the field of plant lipid research.

In the field of plant lipid polyesters (*The Plant Cell*; 3 *PNAS* papers), during her postdoctoral work with John Ohlrogge and Mike Pollard, Dr. Li-Beisson made several key discoveries:

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Identification and characterization of the first suberin mutant, which led to the discovery of a new family of unusual bifunctional acyltransferases (sn-2 GPATs) and resulted in several important publications.

Demonstration that stomatal ledges and flower nanoridges are composed of cutin, the major lipid polyester covering aerial plant surfaces. This finding attracted interest from materials scientists exploring bio-inspired materials.

A proof of concept showing that plant protective polyester layers can be genetically engineered using acyltransferases and fatty acid oxidases.

Discovery that 2-monoacylglycerols serve as key building blocks for the cutin polymer.

In the field of microalgal lipid metabolism (2 *The Plant Cell*, 2 *Science*, 1 *PNAS*), as principal investigator at CEA Cadarache, she led several major advances:

Establishment of a forward genetic screen in *Chlamydomonas* to identify mutants defective in oil turnover. Characterization of these mutants revealed the importance of cellular redox trafficking in lipid metabolism.

Demonstration that fatty acid β -oxidation in microalgae occurs in peroxisomes and is functionally connected to chloroplast photosynthesis and carbon metabolism through redox trafficking.

Participation in the discovery and characterization of fatty acid photodecarboxylase (FAP), the first photoenzyme identified in lipid metabolism.

Discovery of Delayed in TAG Hydrolysis 1 (DTH1), a large protein involved in lipid droplet turnover in microalgae.

Discovery of a bifunctional lipid-droplet-associated α/β -hydrolase that promotes lipid droplet formation (Torres-Romero et al., bioRxiv).

In addition, Dr. Li-Beisson has built important conceptual bridges between lipid metabolism and photosynthesis. Recognizing that lipid synthesis depends strongly on cellular reducing power, she expanded her research to investigate how photosynthetic electron flow and central carbon metabolism influence lipid accumulation. Together with collaborators, she has explored how manipulating redox balance and CO₂ availability affects carbon and lipid storage.

Her work has also maintained strong links with industrial applications. Over the course of her career she has filed four patents and is currently involved in the development of a start-up project.

Overall, Dr. Li-Beisson is an outstanding lipid biologist with an excellent publication record. Her research is original and has significantly advanced our understanding of lipid metabolism. She is also a strong advocate for lipid research and actively participates in science outreach activities in France.

Dr. Li-Beisson has an international background: she grew up in China, studied in the United Kingdom, pursued research in the United States, and now leads a multidisciplinary team of



approximately 25–30 researchers in France. She is widely recognized as an excellent mentor, respected by colleagues and appreciated by her students and postdoctoral fellows. She contributes actively to community service through participation in evaluation committees, conference organization, editorial activities, and peer review. She currently serves as Chair of the Plant Lipids Division within the EuroFedLipid network.

At the international level, she is a highly visible scientist and an important role model for many female students and postdoctoral researchers. Taken together, we strongly believe that Dr. Li-Beisson would be a highly deserving recipient of the 2024 Terry Galliard Medal for Plant Lipid Research.

Dr. Li-Beisson could deliver a lecture sharing her expertise on lipid metabolism in plants and green algae. Alternatively, she could present a focused talk highlighting the lessons learned from studying the environmental and genetic regulation of oil metabolism in *Chlamydomonas*.



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Name of Nominee: Sébastien Mongrand

Nominee's affiliation: Membrane Biogenesis Institute (LBM) in Bordeaux, France

Nomination:

I am honored to nominate Sébastien Mongrand, Research Director at CNRS and Head of the Membrane Biogenesis Institute (LBM) in Bordeaux, France, for the 27th ISPL Terry Galliard Award. Sébastien is a visionary scientist whose groundbreaking work has redefined our understanding of the plant plasma membrane, making him an outstanding candidate for this prestigious recognition.

Scientific Achievements

Sébastien's research has revolutionized the field of plant lipid biology. His group has pioneered the use of modern lipidomic and biophysical approaches to "revisit" the plant plasma membrane, uncovering the critical roles of plant-specific sphingolipids such as glycosyl inositol phosphorylceramides (GIPCs) and low-abundance anionic lipids like phosphoinositides. His work has not only advanced our knowledge of membrane composition but also illuminated the functional significance of plasma membrane nanodomains and membrane leaflet asymmetry.

A true innovator, Sébastien has integrated cutting-edge techniques—including cryo-electron microscopy, atomic force microscopy, solid-state NMR spectroscopy, and single-molecule super-resolution imaging—to elucidate the structure-function relationships of membrane proteins, notably the Remorin family. His discoveries have profound implications for understanding biotic interactions and membrane organization in plants.

Leadership and Mentorship

Beyond his scientific contributions, Sébastien is a passionate communicator and an exceptional mentor. His ability to distill complex concepts into clear, engaging narratives has made him a sought-after speaker and educator. As the leader of the Membrane Biogenesis Lab in Bordeaux, he has nurtured the careers of numerous rising stars in the field, including Emmanuelle Bayer, Amélie Bernard, Yohann Boutté, Laetitia Fouillen, and Julien Gronnier.

Sébastien's influence extends beyond his lab. He has consistently contributed to the global plant lipid research community and has been a driving force at each of the key scientific meeting in the field (ISPL, Godron Conference, ESPL), some of which he helped organize.

Highlights of the nominee's key contributions and major impact on the field of plant lipid research

-Ground breaking work on plasma membrane nanoscale dynamics (Jolivet et al., Elife 2025, Noack et al., 2022 Plant Cell, Perraki et al., 2018 PLoS Pathogens, Gronnier et al., Elife 2017, Raffaele et al., 2009 Plant Cell)



-Spearheading biophysical approaches to study remorin-based membrane nanodomains (Wu et al., 2024 Communication biology, Legrand et al., 2023 Biophysical Journal, Legrand et al., 2019 Front Mol Biosci., Martinez et al., 2019 J Struct Biol)

-Revisiting the lipidome of the plant plasma membrane using cutting edge development in lipidomic and cell biology (Bahammou et al., 2024 Plant Journal, Genva et al., 2024 Plant Journal, Mamode Cassim et al., 2021 J Biol Chem, Grosjean et al., 2018 J Exp Bot, Cacas et al., 2016 Plant Physiol, Grison et al., 2015 Plant Cell)

Proposed Lecture Topic

If awarded, Sébastien will deliver a lecture titled: "Revisiting the Lipid Landscape of the Plant Plasma Membrane: From Composition to Nanoscale Organization and Function"



ISPL Terry Galliard Medal Nominations Coversheet

Name of Nominee: Ruth Welti

Nominee's affiliation: Department of Biology & Kansas Lipidomics Research Center, Kansas State University, Manhattan, Kansas, USA

Prof. Ruth Welti is currently the Edwin G. & Lillian J. Brychta Chair of Biology and a Distinguished Professor at Kansas State University. She is also the Director of the Kansas Lipidomics Research Center. In her latter function she has contributed to lipid analyses by mass spectrometry for more than 800 studies during her career, mostly focused on plant lipids. In addition to papers listing her as coauthor, she has contributed to approximately 350 additional papers in the plant lipid field. As such she has made an enormous contribution to the community and many of us have benefited from her expertise and leadership in plant lipidomics.

For nearly 30 years, Prof. Welti has focused her research on the development of mass spectrometry-based lipidomic analysis of plant lipids. She published several key method papers advancing the technology, such as quantitative lipid species profiling and analytical workflow pipelines, as well as streamlined, efficient extraction of lipids from plant tissues with minimized lipolysis. In addition, she has provided lipid standards for quantification for lipid analysis to the community. Notably, she improved the challenging analyses of low abundant oxylipins and phosphatidic acid, signaling compounds in plants. Importantly, she was involved in key breakthroughs in our understanding of the formation and signaling role of phosphatidic acid in abiotic and biotic stress responses.

In collaboration with Prof. Xuemin "Sam" Wang, she has published a number of milestone papers on the role of phospholipase Ds responsible for the formation of phosphatidic acid as signaling compounds, which has been transformative for our understanding of the role of lipid signaling in plant stress responses. Similarly, she has made key contributions to our understanding of the role of fatty acid signaling during plant biotic stress responses in collaboration with Prof. Jyoti Shah. Other more recent close collaborators and colleagues are Prof. Tim Durrett and Prof. Kathrin Schrick.

Furthermore, Prof. Welti has been an exemplary "citizen" in our plant lipid community. These contributions include, but are not limited to, offering her lipid analytical expertise selflessly to those in need, leading the community in writing NSF grants to acquire mass spectrometers for updated capacities, organizing conferences, and working on lipidomic data standardization and sharing beyond the plant lipid community. One cannot emphasize enough that throughout her career, Prof. Welti has been an outstanding and essential team player for her many collaborators in the plant lipid field. Their discoveries and success stories have also been her discoveries.

Reading her interview as a new ASPB Pioneer member, her humbleness is apparent and she would never admit it, but she has been and still is one of the most prolific enablers in the plant lipid community and highly deserving of the honor of being named the Galliard Lecturer in 2026.



Should she be selected from among our many deserving colleagues, she would present her lecture on natural variation of lipids and lipid metabolic enzymes in plant stress responses (probably with an emphasis on cold/freezing).