

Andreas P.M. Weber – *Curriculum Vitae*

Institute of Plant Biochemistry
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EDUCATION

<u>Institution</u>	<u>Major/Area</u>	<u>Degree</u>	<u>Year</u>
University of Würzburg	Botany	Diploma	1991
University of Würzburg	Plant Biology	Dr. rer.nat.	1996
University of Cologne	Plant Biology	Habilitation	2002

APPOINTMENTS

2013	Director, Center for Synthetic Life Sciences (CSL), HHU Düsseldorf
2007-	Professor (W3) and Chair, Institute of Plant Biochemistry, Department of Biology, Heinrich-Heine-University, Düsseldorf, Germany
2007-2012	Adjunct Professor of Plant Biology, Department of Plant Biology, Michigan State University
2002-2007	Associate Professor of Plant Biology, Department of Plant Biology Michigan State University
1997-2002	Research Group Leader, Department of Plant Biology University of Cologne, Germany
2000-2001	Visiting Scientist (Honorary Fellow), Department of Botany University of Wisconsin-Madison
1996-1997	Postdoctoral Fellow, Department of Plant Biology University of Cologne, Germany

FUNCTIONS IN STRUCTURED RESEARCH PROGRAMS

2016	Deputy Speaker, Coordinated Research Center 1208 “Identity and Dynamics of Membrane Systems” (SFB 1208; http://www.sfb1208.hhu.de/en.html)
2012 -	Speaker, Excellence Cluster EXC 1028, Cluster of Excellence on Plant Science (CEPLAS; http://ceplas.eu)
2009 -	Speaker, International Graduate Training Group IRTG 1525, iGRAD-Plant (http://www.igrad-plant.hhu.de)

RESEARCH INTERESTS

Physiology, biochemistry, and molecular biology of solute transport in plant cells; compartmentation of metabolic pathways and metabolic networks; photorespiration; C₄ photosynthesis; extremophilic eukaryotes; ‘Omics technologies; synthetic experimental evolution; synthetic biology.

SELECTED PROFESSIONAL ACTIVITIES

Organized (alone or with others):

- Minisymposium and Workshop “Biosynthesis and Degradation of Starch”, University of Cologne, 2000
- Minisymposium and Workshop “Progress in Photosynthesis Research”, University of Cologne, 2001
- “13th International Congress on Photosynthesis”, Session Chair “Photosynthate transport and transporters”, Montreal, Canada, 2004.
- Workshop on Algal Genomics, ISPL Meeting 2006, Michigan State University, 2006.
- “New Vistas in Microbial Extremes” (Co-Chair), International Symposium on Microbial Ecology, Cairns, Australia, 2008.
- Session Chair, Photosynthesis: C₃, C₄, CAM, 2011, Biannual International Conference of the German Botanical Society, Berlin.
- Organizer, Biannual Meeting of the International Society for Endocytobiosis, German Section, Düsseldorf, 2011.
- Organizer, Workshop on Next Generation Sequencing, Düsseldorf, 2012.
- Organizer, EMBO-ESF Conference Biology of plastids – towards a blueprint for synthetic organelles, Poltusk, 2014 (with Katherine Osteryoung).
- Discussion Leader: Gordon Research Conference on Mitochondria and Chloroplasts; Il Ciocco, Italy, 2014.
- Co-organizer: Synbio PhD Summer School: Synthetic Biology in Photosynthetic Organisms; Denmark, August 2014 (with Dario Leister and Poul Eric Jensen)
- Co-organizer: Synbio PhD Summer School: Synthetic Biology in Photosynthetic Organisms; Denmark, August 2015 (with Poul Eric Jensen)
- Organizer, Satellite Workshop of C₄ Photosynthesis, August 2016 (with Urte Schlüter and Udo Gowik)
- Organizer: 30th Conference on Plant Molecular Biology; Dabringhausen, Germany, February 2017
- Elected Chair, Gordon Research Conference “Plant Metabolic Engineering”, 2021.

Invited reviews:

- Annual Review of Plant Biology (2005, 2011, 2017, 2018), Current Opinion in Plant Biology (2004, 2010, 2013), Molecular Plant (2010), Annual Review of Genetics (2007), International Review of Cytology (2007), FEBS Letters (2007), Current Opinion in Biotechnology (2013), Journal of Experimental Botany (2002, 2003, 2011, 2013), Trends in Plant Sciences (2002, 2013), Plant Physiology (2010, 2011, 2015).

Editorial work:

- 2017-present Plant, Cell & Environment (Editor)
- 2016 Plant and Cell Physiology: Special Issue on C₄ Photosynthesis (Guest Editor with Susanne von Caemmerer and Mitsutaka Taniguchi)
- 2016 Journal of Experimental Botany: Special Issue on Photorespiration: origins and metabolic integration in interacting compartments (Guest Editor with Martin Hagemann and Marion Eisenhut)
- 2016- Frontiers in Plant Physiology (Section Chief Editor, with Yunde Zhao)
- 2015-2017 Plant Cell (Reviewing Editor)
- 2013 Plant Biology: Special Issue on Photorespiration (Guest Editor with Hermann Bauwe)
- 2013-2017 Plant, Cell & Environment (Associate Editor)
- 2012 Current Opinion in Plant Biology, Plant Metabolism and Physiology (Guest Editor with Julian Hibberd)
- 2012-2016 Plant and Cell Physiology (Editor)

2012 - 2015	Journal of Experimental Botany (Associate Editor)
2011	Plant Physiology: Focus Issue Plastid Biology: Focus on the Defining Organelle of Plants (Guest Editor with Kathy Osteryoung)
2008-2012	Plant Physiology (Associate Editor)
2004-2008	Plant Physiology (Monitoring Editor)
2004-present	Plant Biology, Stuttg. (Reviews Editor)

Grant & Institutional Review Panel Member:

NSF, Metabolic Biochemistry (2004 – 2007)
 AERES Evaluation Committee, CEA Cadarache, France (2010)
 Leibniz-Institute for Plant Biochemistry, Halle, Germany (2013)
 AERES Evaluation Committee, Institut des Sciences des Plantes de Paris Saclay (2013)
 Elected Member, Evaluation Panel of the Senate of the Leibniz Society (since 2014)
 Elected Member, DFG Panel Plant Sciences (Fachkollegium Pflanzenwissenschaften; since 2016)

Ad Hoc Reviewing:

Grants for NSF, USDA, BARD, DFG, BBSRC, ISTC-CRDF, ISF
 Manuscripts for Biochemistry; Biochim Biophys Acta; FEBS Lett; Gene; J Biol Chem; J Exp Bot; J Mem Biol; J Plant Physiol; Mol Cell Proteomics; New Phytol; Nat Biotech, Nat Genet; Plant Cell; Plant Cell Environ; Plant Cell Physiol; Plant Mol Biol; Plant J; Plant Physiol; Plant Physiol Biochem, Physiol Plant; Plant Sci; Planta; Proc Natl Acad Sci USA; Trends Plant Sci.

Community Service:

Member, Charles F. Kettering Award Committee, American Society of Plant Biologists (since 2016)
 Chairperson, Section Plant Physiology and Molecular Biology, German Botanical Society (since 2010)
 Associate Chairperson, Section Plant Physiology and Molecular Biology, German Botanical Society (2007 - 2009)

HONORS AND AWARDS

Elected Member, German National Academy of Sciences “Leopoldina”, 2015
 Heinrich-Heine-University Medal of Honor (Ehrenmedaille der Universität), 2013
 DFG Habilitation Fellowship, University of Cologne, 2000-2002
 DFG Graduate Fellowship, University of Würzburg, 1991-1994

FUNDING

Six DFG awards, University of Cologne, (WE2231/1 – WE2231/3-1) 1997-2002
 > \$4 Mio in funding awarded 2002 – 2007 (NSF, DOE, MSU IRGP, MSU CPPT); Lead-PI only; funding obtained as Co-PI on collaborative research proposals (e.g., Arabidopsis 2010) not included.
 > € 50 Mio in funding awarded since 2007 (DFG Cluster of Excellence CEPLAS, DFG International Research Training Program 1525 iGRAD-plant; CRC 1208; several DFG large instrument grants).

University of Cologne (1997 – 2002)

08/97 Characterization of a starch free mutant of *Arabidopsis thaliana*. DFG (WE2231/1-1).
 07/98 Plastidic dicarboxylate translocators in *Arabidopsis thaliana* and *Nicotina tabacum*. DFG

(WE2231/2-1).

03/00 Characterization of a starch free mutant of *Arabidopsis thaliana* DFG (WE2231/1-3).
Renewal of WE2231/1-1.

03/00 Habilitation Award DFG (WE2231/3-1): Studies on the carbon and nitrogen metabolism of plastids, with particular emphasis on the transport processes interconnecting plastids and cytosol and the regulation of metabolic pathways in cytosol and plastids.

09/00 Plastidic dicarboxylate translocators in *Arabidopsis thaliana* and *Nicotina tabacum*. DFG (WE2231/2-2). Renewal of WE2231/2-1.

05/01 Interaction of plastidic and cytosolic nitrogen metabolism. DFG national key action 1108 „Dynamics and regulation of plant membrane transport during development of cell- and organ-specific characteristics“ (WE2231/2-3).

11/01 Joint GABI-Génoplant Project „Functional genomics of nitrogen utilisation and nitrogen signalling“; subproject: „Nitrogen metabolism and the interaction of C/N pathways in plastids and the cytosol“. Project stopped and remaining funds returned after my transfer to MSU.

Michigan State University (2002 – 2007)

MSU Center for Plant Products and Technologies. “Unravelling regulatory elements and limiting steps in plant secondary metabolism”. (2002-2003; \$50,000). Role: PI

MSU New Faculty Intramural Research Grant Competition: “Plastidic carbohydrate translocators”. (2003-2004; \$50,000). Role: PI

MSU Center for Plant Products and Technologies: “Phenylalanine-insensitive Mutants of *Arabidopsis thaliana*”. (2003-2004; \$35,000). Role: PI

National Science Foundation (NSF) “Genome Analysis of *Galdieria sulphuraria* – a unique thermo-acidophilic photosynthetic microorganism”. (2003-2005; \$1,200,000). Role: PI

National Science Foundation: “Role of Plastidic Dicarboxylate Translocators in Plant Ammonia Assimilation”. (2004-2007; \$578,887). Role: PI

National Science Foundation: REU Supplement to “Role of Plastidic Dicarboxylate Translocators in Plant Ammonia Assimilation”. (2004; \$9,688). Role: PI

US Department of Energy: “Maltose Biochemistry and Transport in Leaves”. (2004-2007; \$360,000). Role: PI

National Science Foundation: “Arabidopsis 2010: Understanding plastid function”. \$3,999,999. PI: Last; CoPIs: Benning, DellaPenna, Osteryoung, Ohlrogge, Shachar-Hill, Wedemeyer, Weber, Wilkerson

National Science Foundation (Metabolic Biochemistry): Research Experience for Undergraduates (REU). (2005; \$9,900). Role: PI

National Science Foundation (Emerging Frontiers): Research Experience for Undergraduates (REU). (2005; \$9,900). Role: PI

National Science Foundation (NSF) Supplemental Funding Request to: “Genome Analysis of *Galdieria sulphuraria* – a unique thermo-acidophilic photosynthetic microorganism”. (2005-2006; \$225,685). Role: PI

National Science Foundation (NSF) “Functional and evolutionary analysis of chloroplast metabolite transporters in the C₄ plant maize”. (2006-2009; \$450,000). Role: PI

National Science Foundation (NSF) “Understanding protein networks in plant peroxisomes”. (2006-2010; \$2,080,000). PI Hu; CoPIs: Weber, Olsen

MSU Foundation “A Next Generation Sequencing Center for MSU”. (2006-2009; \$1,000,000). Role: PI

Heinrich-Heine-University, Düsseldorf (2007 – current)

Single Investigator grants and sub-projects in Coordinated Research Programs

- 09/07- 09/11 Understanding the role of the plastid outer envelope membrane for integrating plastids into cellular metabolic and regulatory networks (WE 2231/4-1)
€ 475.000
- 06/08 – 05/11 The role of bundle sheath cell-generated metabolic signals in controlling the differentiation of mesophyll cells (DFG CRC 590, Project B9)
€ 200.000
- 07/08 – 09/11 Primary carbon partitioning in red algae and green plants (DFG 2231/7-1)
€ 131.250
- 01/09 – 06/12 OPTIMAS: Systems Biology of Maize Plants (German Ministry of Research and Education)
€ 354.522
- 07/09 – 06/12 Annotation and functional characterization of novel components of the plastid permeome through comparative analysis of C₃ and C₄ plants (DFG CRC TR1, Project C12)
€ 359.400
- 07/09 – 06/12 Functional and comparative analysis of the chloroplast proteomes of the red algae *Galdieria sulphuraria* and *Cyanidioschyzon merolae* (DFG CRC TR1, Project B9)
€ 133.200
- 10/09 – 09/12 Transport of photorespiratory intermediates between cellular compartments (DFG 2231/8-1; DFG Research Network FOR 1186, PROMICS)
€ 252.000
- 07/11 – 06/14 Adaptomics: The Evolution of C₄ Photosynthesis in the Cleomaceae, a sister clade to the Brassicaceae (DFG 2231/9-1; DFG Priority Program SPP 1529, Adaptomics)
€ 384.000
- 03/12 – 01/17 3to4: Converting C₃ to C₄ photosynthesis for sustainable agriculture (EU FP7 Collaborative Project; coordinator: Prof. Richard Leegood, Sheffield, UK)
€ 450.000
- 10/12 – 9/15 Renewal: Transport of photorespiratory intermediates between cellular compartments (DFG WE 2231/8-2; DFG Research Network FOR 1186, PROMICS)
€ 320.000
- 09/14 – 08/17 Renewal: Adaptomics: The Evolution of C₄ Photosynthesis in the Cleomaceae, a sister clade to the Brassicaceae (DFG 2231/9-2; DFG Priority Program SPP 1529, Adaptomics)
€ 210.750
- 09/14 – 08/17 Interaction of sulfur- and nitrogen metabolism. Role of different subcellular serine pools in cysteine biosynthesis. (DFG WE 2231/16-1).
€ 107.400
- 12/15 – 12/19 Role of metabolite transporters in engineering C₄-Rice. (Bill & Melinda Gates Foundation; C₄-Rice Program).
USD 312.620
- 01/16 – 12/19 Dynamic remodeling and intermembrane interactions of the plastidial envelope membrane system. (DFG CRC 1208; TP B11)
€ 440.000
- 09/16 – 08/19 FormatPlant: Increasing agricultural productivity through formate biosynthesis and implementation of optimized biosynthetic routes. (BMBF 031B0194A)
€ 358.000
- 12/16 – 11/19 FullThrottle: Maximizing photosynthetic efficiency in maize. (BMBF 031B0205A)
€ 590.000

Total: approx. € 5.000.000 since 5/2007

Large instrument grants (Abs. 91b GG)

2008 Gas chromatography system with time-of-flight mass spectrometer
€ 230.000

2008 Liquid-chromatography system with quadrupole/time-of-flight mass spectrometer
€ 540.000

2011 Nano-LC system with hybrid linear/orbital ion trap mass spectrometer (Orbitrap)
€ 820.000

Total: € 1.590.000 since 05/2007

As Lead-PI in Coordinated Research Programs

06/09 – 12/13 The Dynamic Response of Plants to a Changing Environment (DFG International Graduate Research School IRTG 1525; Lead-PI, 9 Co-PIs)
€ 2.500.000

12/13 – 06/18 Renewal: The Dynamic Response of Plants to a Changing Environment (DFG International Graduate Research School IRTG 1525; Lead-PI, 10 Co-PIs)
€ 4.000.000

11/12 – 12/18 CEPLAS: Cluster of Excellence on Plant Sciences – From complex traits to synthetic modules. (DFG Excellence Cluster EXC 1028; 20 PIs, Lead-PI and Cluster Speaker: Andreas Weber)
€ 34.000.000

Total: € 40.000.000 since 05/2007

Research Buildings (Abs. 91b GG)

05/13-04/18 ZSL – Zentrum für Synthetische Lebenswissenschaften Düsseldorf (Center for Synthetic Life Sciences Düsseldorf); 7,320 m² Research Building with 3,900 m² of laboratory space, plant growth facilities, and research instrumentation. (10 PIs, Lead-PI and Center Director: Andreas Weber).
€ 36.190.000

Teaching Programs and International Student Exchange

03/09 – 08/17 Bachelor International; International four-year Bachelor of Science in Biology Program that includes a one-year study-abroad period at Michigan State University. (German Academic Exchange Service DAAD Bachelor Plus Program).
€ 800.000

PROFESSIONAL MEMBERSHIPS

American Society of Plant Biologists (ASPB)
German Society of Plant Biologists, Chair of Plant Molecular Biology and Physiology section
Deutscher Hochschulverband (German Association of University Professors)

RESEARCH PRESENTATIONS (2000 TO PRESENT)Invited Lectures at Professional Meetings

The presenting author is identified by an asterisk (*).

- Weber, A*, Deutsche Botanikertagung, Kiel, Germany, September 2017
- Weber, A*, Gordon Research Conference “Plant Metabolic Engineering”, Waterville Valley, NH, USA, July 2017
- Weber, A*, “International Symposium on Marine Genomics”, Seoul, South Korea, April 2017
- Weber, A*, Mosbacher Kolloquium der GBM, Mosbach, Germany, March 2017
- Weber, A*, International Meeting of DFG Research Group FOR 2092, Schloss Ringberg, Germany, December 2016
- Weber, A*, International Conference on Photosynthesis Research (PS16), Maastricht, Netherlands, August 2016.
- Weber, A*, International Conference on Arabidopsis Research (ICAR 2016), Gyeongju, South Korea, June 2016.
- Weber, A*, C4-50, International Symposium to Mark the 50th Anniversary of the Discovery of C₄ Photosynthesis; Canberra, Australia, April 2016.
- Weber, A*, International Winter School of Pure and Applied Biophysics, Venice, Italy, January 2016
- Weber, A*, Sino-German Symposium on Dynamics of Photosynthesis; Evangelische Akademie Tutzing, Tutzing, Germany, November 2015
- Weber A*, 2015 International Symposium on Plant Sciences & the Annual Conference of the Korean Society of Plant Biologists, Chungnam National University, Daejeon, South Korea, November 2015
- Weber A*, 18. Conference of the Genome Research Working Group of the German Plant Breeding Association, Düsseldorf, Germany, September 2015
- Weber A*, International Conference on Arabidopsis Research, Paris, France, July 2015
- Weber A*, Sino-German Symposium on Plant Metabolism and Metabolomics; Max-Planck-Institute for Molecular Physiology, Potsdam, Germany, June 2015
- Weber A*, Gordon Research Conference on “Organellar Channels and Transporters”, Waltham, MA, June 2015
- Weber A*, Rundgespräch Pflanzenbiochemie, Wallenfels, Germany, May 2015
- Weber A*, Plant 2030 Status Seminar, Potsdam, Germany, March 2015
- Weber A*, Plant & Animal Genome Conference, San Diego, CA, January 2015
- Weber A*, National Research Council Panel on Transgenic Crops; National Academy of Sciences USA, Washington, D.C., December 2014
- Weber A* Horizons in Plant Biology Meeting, Max-Planck-Institute for Plant Breeding Research, Cologne, Germany, November 2014
- Weber A* Annual Meeting of the German Society for Endocytobiology, Black Forest, Germany, July 2014
- Weber A* Sino-German Meeting Shanghai, China, May 2014
- Weber A* International Symposium of the Priority Program 1529 Adaptomics, Bad Neuenahr, Germany, April 2014
- Weber A* International Meeting of the Japanese Society of Plant Physiologists (JSPP). Toyama, Japan, March 2014
- Weber A* Annual Meeting of the German Society for Plant Breeding (GPZ), Cologne, Germany, February 2014
- Weber A* Productivity Improvement of Plants: From Model to Crop Plants”, Nara, Japan, January 2014
- Weber A* Recreating Endosymbiosis, Banyuls, France, October 2013
- Weber A* 12th Awaji International Forum on Infection and Immunity, Awaji, Japan, September 2013

- Weber A* International Photosynthesis Conference, St Louis, MO, August 2013
- Weber A* International Conference on CAM and C₄ Photosynthesis, Urbana-Champaign, IL, August 2013
- Weber A* Gordon Conference: Plant Metabolic Engineering, Waterville Valley Resort, NH, July 2013
- Weber A* Plants & People Conference, Potsdam, Germany, June 2013
- Weber A* Gulbenkian International Graduate Student Conference, Seia, Portugal, May 2013
- Weber A* Redesigning Photosynthesis, Banbury Conference, Cold Spring Harbor, NY, May 2013
- Weber A* Plant Biotechnology Network Conference, Copenhagen, Denmark, January 2013
- Weber A* International Conference on Plant Molecular Biology, Jeju, Korea, October 2012.
- Weber A* International TR1 Conference on Endosymbiosis, Munich, Germany, October 2012.
- Weber A* Sino-German International Conference on Plant Biology, Beijing, China, September 2012.
- Weber A* DECHEMA-NSF International Workshop on Algal Biotechnology, Frankfurt, Germany, August 2012.
- Weber A* Joint International Plant Biology Congress of EPSO and FESPB, Freiburg, Germany, July 2012.
- Weber A* International Workshop on Next-Generation-Sequencing, Brisbane, Australia, July 2012.
- Weber A* International Conference of the Society for Experimental Biology, Improving Photosynthesis, Salzburg, Austria, June 2012.
- Weber A* International Conference Photorespiration – Key to Better Crops, Warnemünde, Germany, June 2012.
- Weber A* International Symposium of the Priority Program 1529, Adaptomics, Königswinter, Germany, March 2012.
- Weber A* Rutgers University International Symposium on Next-Generation Sequencing and Genomics, Rutgers University, New Brunswick, NJ, December 2011.
- Weber A* Symposium of the SFB 567: Mechanisms of interspecies interactions, Veitshöchheim, Germany, November 2011.
- Weber A* International Biannual Meeting of the German Botanical Society, Berlin, Germany, September 2011.
- Weber A* International Symposium of the Forschungsnetzwerk Biogene Kraftstoffe (Research Network Biofuels), Straubing, Germany, September 2011.
- Weber A* Gordon Conference: Plant Metabolic Engineering, Waterville Valley Resort, NH, July 2011.
- Weber A* International genomics symposium on *Paulinella chromatophora*, Portland, Maine, June 2011.
- Weber A* Gordon Conference: CO₂ Assimilation in Plants: Genome to Biome, Les Diablerets, Switzerland, May 2011.
- Weber A* Symposium: Specific Light-Driven Reactions in Unicellular Model Algae, Jena, Germany, March 2011.
- Weber A* International Workshop on Plant Primary Carbon Metabolism, Stellenbosch, South Africa, November 2010.
- Weber A* Korean-German Joint Symposium, Jinju, Korea, September 2010.
- Weber A* Trinational Arabidopsis Meeting, Salzburg, Austria, September 2010.
- Weber A* Meeting of the International Society of Endocytobiology, Tromsø, Norway, August 2010.
- Weber A* International Conference on C₄ Photosynthesis, Shanghai, China, August 2010.

- Weber A* Symposium: Evolution of Transport Systems, University of Frankfurt, Frankfurt, Germany, July 2010.
- Weber A* Symposium: Plant Primary Metabolism. Synthesis-, Storage- and Degradation Processes. Kaiserlautern, Germany, May 2010.
- Weber A* Workshop on C4 Photosynthesis, Honolulu, HI, July 2009.
- Weber A* Meeting of the International Society of Molecular Biology and Evolution, University of Iowa, Iowa City, IA, June 2009.
- Weber A* Symposium: Bacteria made Endosymbionts made Organelles, Tokyo, Japan, December 2008.
- Weber A* "Intracellular metabolite transport in C3 and C4 plants." COMBIO Conference, Canberra, Australia, September 2008.
- Weber A* "Red hot genomics – Genome sequence of the thermo-acidophilic microalga *Galdieria sulphuraria*". 12th International Symposium of Microbial Ecology, Cairns, Australia, August 2008.
- Weber A* "The origin of chloroplasts – merger of equals or unfriendly takeover?" Frontiers of Science, Potsdam, Germany, May 2008.
- Weber A* "Making the connections – the role of intracellular metabolite transport in photosynthesis and photorespiration". 98th Botanical Congress, Hamburg, Germany, September 2007.
- Weber A* "Functional and evolutionary genomics of intracellular metabolite transport in plant cells". "II. Minisymposium Membrane Transport/Protein-Protein Interactions". Bad Münster am Stein, August 2007.
- Weber A* "Profiling plant transcriptomes by massively-parallel pyrosequencing". Bielefeld Symposium on Ultrafast Sequencing Technologies, Bielefeld, Germany, July 2007.
- Weber A* "Intracellular solute transport in maize". International Workshop on CAM and C4 photosynthesis, Cambridge, UK, July 2007.
- Weber A* "Making the connections: Intracellular transport in plant cells". Workshop Raps – Nutzpflanze mit Zukunft", Wittenberg, Germany, June 2007
- Weber A* "Osmo-adaption in the thermo-acidophilic microalga *Galdieria sulphuraria* - an 'omics approach". Gordon Conference on Cellular Osmoregulation, Aussois, France, June 2007.
- Weber A* "The red, hot genome project - genome sequence of the extremophilic microalga *Galdieria sulphuraria*". Plant & Animal Genome Conference XV, San Diego, CA, January, 2007.
- Weber A* "From Genomics to Proteomics to Protein Function in the Thermoacidophilic Red Microalga *Galdieria sulphuraria*". The 4th Matsuyama International Symposium on Cell-Free Sciences, Ehime University, Matsuyama, Japan, October 2006.
- Weber A* "Evolutionary Genomics of Plastid Envelope Membrane Transport". 2nd Pan-American Plant Membrane Biology Workshop, South Padre Island, TX, May 2006.
- Weber A* "Lessons from the red, hot genome project." 19th Plant Molecular Biology Meeting, Dabringhausen, Germany, January 2006.
- Weber A* "Bioinformatics and Proteomics Approaches Towards Defining the Proteome of Chloroplast Envelope Membranes." American Electrophoresis Society Annual Meeting, Cincinnati, OH, November 2005.
- Weber A* "Red, hot, sweet, and sour: genomics of the thermo-acidophilic red alga *Galdieria sulphuraria*." Symposium: From bacteria to organelles. Rikkyo University, Tokyo, Japan. August 2005.
- Weber A* "Red, hot, sweet, and sour: genomics of the thermo-acidophilic red alga *Galdieria sulphuraria*." Instruments, Methods, and Missions for Astrobiology IX: Microbial Extremophiles – Thermophiles. San Diego, CA. August 2005.
- Weber A* "Red, hot, sweet, and sour: Genomics of the thermoacidophilic red microalga *Galdieria*

- sulphuraria*.” 26th Annual Conference on the Organisation and Expression of the Genome, Cowes, Victoria, Australia. February 2005.
- Weber A* “Red, hot, sweet, and sour: Genomics of the thermoacidophilic red microalga *Galdieria sulphuraria*.” 13th Plant & Animal Genome Conference, San Diego, CA. January 2005.
- Weber A* “Photosynthate transport and transporters. Chair’s Introduction”. 13th International Congress on Photosynthesis, Montreal, Canada. August 2004.
- Weber A* “Mutant analysis of plastid transporter function”. “Novel approaches to photosynthetic performance”, Colchester, Essex, UK. September 2003.
- Weber A*. “The role of SEX1 and sugar transporters in starch degradation”. Gordon Conference “CO₂-Assimilation and Metabolism”, Mount Holyoke College, South Hadley, USA. August 2002.
- Weber A*. „Coordination of cytosolic and plastidic carbohydrate- and nitrogen-metabolism by transporters of the plastid envelope membrane“. 6th International Symposium on Inorganic Nitrogen assimilation, Reims, France. July 2001.
- Kofler, H*, Hille D, Fischer KL, Häusler RE, Flügge UI & Weber A. “Starch in excess: What effects the *Arabidopsis thaliana* mutant *sex1*?”. 12th International Conference on Arabidopsis Research, Madison, WI, 2001.
- Weber A*, Servaites JC, Geiger DR, Kofler H, Hebbeker U, Hille D & Flügge UI. “The glucose translocator of chloroplasts: a new class of plant hexose transporters”. Deutsche Botanikertagung, Biannual Meeting of the German Botanical Society, Jena, Germany, 2000.

Other Presentations at Professional Meetings

- Voll L*, Allaire E, Lee Y-H*, Fiene G, Foster J, Tegeder M, Weber A. “The *Arabidopsis thaliana pig* mutants reveal control steps in amino acid homeostasis and partitioning.” Plant Biology 2005, Seattle, WA, 2005
- Lee Y-H*, Foster J, Chen J, Voll L, Weber A, Tegeder M. “AtAAP1 plays a role in uptake of amino acids from the soil.” Plant Biology 2005, Seattle, WA, 2005
- Linka N*, Neuhaus, HE, Weber A. “Functional characterization of peroxisomal ATP transporter family in *Arabidopsis thaliana*.” Plant Biology 2005, Seattle, WA, 2005
- Truchina YO*, Weber A. “Putative plastidic monosaccharide transporters of *Arabidopsis thaliana*.” Plant Biology 2005, Seattle, WA, 2005
- Jamai A*, Salomé P, Voll L, Weber A, McClung CR. “Interactions between SHMT and GOGAT in photorespiration”. 16th International Conference on Arabidopsis Research. University of Wisconsin-Madison, Madison, WI, 2005.
- Allaire E*, Voll LM, Weber A. “Examining the cross resistance of *pig* mutants to amino acids”. Plant Biology 2004, Orlando, FA, 2004.
- Voll LM*, Fiene G, Weber APM. “The novel Arabidopsis *phenylalanine insensitive growth* mutant *pig1-1* displays a deregulated homeostasis of free amino acids”. Plant Biology 2004, Orlando, FA, 2004.
- Weber A*, Schneidereit J. “A novel model for the rapid regulation of nitrate reduction in leaves by redox coupling of plastidic and cytosolic metabolism”. Plant Biology 2004, Orlando, FA, 2004.
- Weber A*, Schneidereit J. “A novel model for the rapid regulation of nitrate reduction in leaves by redox coupling of plastidic and cytosolic metabolism”. Annual Meeting of the Midwest Section of ASPB, Ohio State University, Columbus, OH, 2004.
- Allaire E*, Voll LM, Weber A. “Examining the cross resistance of *pig* mutants to amino acids”. Annual Meeting of the Midwest Section of ASPB, Ohio State University, Columbus, OH, 2004.
- Voll L, Renné P, Voll H, Weber A*. “Molecular characterization of the Arabidopsis *shm*-mutant”.

- Annual Meeting of the Midwest Section of ASPB, Ohio State University, Columbus, OH, 2004.
- Weber A*. “Red, hot, sweet, and sour: *Galdieria sulphuraria*, a unique photosynthetic eukaryotic extremophile”. CMB/Genetics Retreat 2003, Higgins Lake, Roscommon, MI, 2003.
- Weber A*, Zimmermann M, Jamai A, Oesterhelt C, Gross, W, Garavito M, Bennis C. “Genome analysis of *Galdieria sulphuraria* – a unique thermo-acidophilic photosynthetic microorganism”. Plant Biology 2003, Honolulu, HI, 2003.
- Schneidereit J*, Flügge UI, Kaiser WM, Weber A. “Antisense repression of the plastidic 2-oxoglutarate/malate-translocator (DiT1) has massive impact on plant nitrogen metabolism”. Plant Biology 2003, Honolulu, HI, 2003.
- Voll LM*, Weber A, Häusler RE, Löttgert T, Hecker R, Weissenböck G, Waffenschmidt S, Fiene G, Flügge UI. “Phosphoenolpyruvate levels in the plastid control the pattern and the quantity of vacuolar phenylpropanoids”. Plant Biology 2003, Honolulu, HI, 2003.
- Bräutigam A, Weber A*. “Similar domains, different substrates. A reverse genetics approach to characterize a glycosyltransferase in *A. thaliana*”. 14th International Conference on Arabidopsis Research. University of Wisconsin-Madison, Madison, WI, 2003.
- Krassovskaya I*, Wiese A, Weber A. “Hexokinase-like proteins in the Arabidopsis genome”. 14th International Conference on Arabidopsis Research. University of Wisconsin-Madison, Madison, WI, 2003.
- Renne P, Dressen U, Flügge UI, Westhoff P, Weber A*. “*Dct* is deficient in the plastidic glutamate/malate translocator”. 14th International Conference on Arabidopsis Research. University of Wisconsin-Madison, Madison, WI, 2003.
- Weber A*, “Some like it hot: Membrane transporters from the thermo-acidophilic red microalga *Galdieria sulphuraria*”. 1st Pan-American Plant Membrane Biology Workshop, Cuernavaca, México, 2003.
- Weber A*, Zimmermann M, Horlacher T, Jamai A, Garavito M, Bennis C. “Genome analysis of *Galdieria sulphuraria* – a unique thermo-acidophilic photosynthetic microorganism”. Annual Meeting of the Midwest Section of ASPB, Iowa State University, Ames, Iowa, 2003.
- Schneidereit J*, Flügge UI, Kaiser WM, Weber A. “Antisense repression of the plastidic 2-oxoglutarate/malate-translocator (DiT1) has massive impact on plant nitrogen metabolism”. Annual Meeting of the Midwest Section of ASPB, Iowa State University, Ames, Iowa, 2003.
- Voll L*, Weber A. “Phenylalanine and its control on secondary metabolism”. Annual Meeting of the Midwest Section of ASPB, Iowa State University, Ames, Iowa, 2003.
- Trukhina J*, Schneider A, Weber A. “Plastidic carbohydrate transporters: physiological role and molecular characterization”. Annual Meeting of the Midwest Section of ASPB, Iowa State University, Ames, Iowa, 2003.
- Krassovskaya I*, Weber A. “New group of hexokinase proteins from *Solanum tuberosum* and *Arabidopsis thaliana*”. Annual Meeting of the Midwest Section of ASPB, Iowa State University, Ames, Iowa, 2003.
- Bräutigam A*, Weber A. “Similar domains, different substrates. A reverse genetics approach to characterize a glycosyltransferase in *A. thaliana*”. Annual Meeting of the Midwest Section of ASPB, Iowa State University, Ames, Iowa, 2003.
- Schneidereit J, Renné P, Flügge UI & Weber A*. “The role of plastidic dicarboxylic acid transporters in plant ammonia assimilation”. Midwest Photosynthesis Meeting, Turkey Run State Park, Marshall, IN, 2002.
- Weber A*, Schneidereit J, Flügge UI & Kaiser WM. “Antisense repression of the plastidic 2-oxoglutarate/malate translocator in transgenic tobacco plants”. Plant Biology 2002, Annual ASPB Meeting, Denver, CO, 2002.
- Krassovskaya I*, Wiese A, Fiene G, Hebbeker U, Flügge UI & Weber A. “Investigation of a novel

- group of plant hexokinases". Poster, 12th International Conference on Arabidopsis Research, Madison, WI, 2001.
- Renne P*, Hille D, Kolukisaoglu Ü, Schulz B, Flügge UI & Weber A. "Dicarboxylate Transport of the plastidial membrane". Poster, 12th International Conference on Arabidopsis Research, Madison, WI, 2001.
- Renne P*, Kofler H, Hille D, Fischer K, Flügge UI & Weber A. "Positional cloning of a gene encoding a serine hydroxymethyltransferase involved in the photorespiratory pathway". Poster, 12th International Conference on Arabidopsis Research, Madison, WI, 2001.
- Weber A*, Weise SE & Sharkey TD. "Comparative analysis of starch metabolism in starch deficient and starch excess mutants of *Arabidopsis thaliana*". Poster, 12th International Conference on Arabidopsis Research, Madison, WI, 2001.
- Wiese A*, Gröner F, Hebbeker U, Flügge UI & Weber A. "Plant hexokinases – subcellular localization and function". Poster, 12th International Conference on Arabidopsis Research, Madison, WI, 2001.
- Kofler H*, Hille D, Flügge UI & Weber A. "Starch in excess: What effects the *Arabidopsis thaliana* mutant *sex1*". Poster, Deutsche Botanikertagung, Biannual Meeting of the German Botanical Society, Jena, Germany, 2000.
- Voll L*, Häusler RE, Weber A, Fiene G, Weissenböck G & Flügge UI. "Pleiotrope Effekte eines mutierten Locus am Beispiel der *cue1*-Mutanten aus *Arabidopsis thaliana*". Poster, Deutsche Botanikertagung, Biannual Meeting of the German Botanical Society, Jena, Germany, 2000.
- Häusler RE*, Baur B, Teichmann T, Eicks M, Fischer KL, Flügge UI, Schubert S, Weber A & Fischer K. "Plastidäre Metabolitransporter und ihre Funktion in der induzierbaren Crassulaceen-Säure-Stoffwechsel-(CAM)-Pflanze *Mesembryanthemum crystallinum*". Poster, Deutsche Botanikertagung, Biannual Meeting of the German Botanical Society, Jena, Germany, 2000.
- Renne P*, Hille D, Flügge UI & Weber A. "Dikarbonsäure-Translokatoren der plastidären Hüllmembran". Poster, Deutsche Botanikertagung, Biannual Meeting of the German Botanical Society, Jena, Germany, 2000.
- Jamai A, Schon O, Flügge UI & Weber A*. "A plastidic phosphate translocator of *Galdieria sulphuraria*". Lecture, Deutsche Botanikertagung, Biannual Meeting of the German Botanical Society, Jena, Germany, 2000.
- Weber A*, Häusler RE, Fiene G, Flügge UI & Kaiser WM. "Antisense repression of the plastidic 2-oxoglutarate/malate translocator in transgenic tobacco plants". Poster, Deutsche Botanikertagung, Biannual Meeting of the German Botanical Society, Jena, Germany, 2000.
- Wiese A*, Gröner F, Hebbeker U, Flügge UI & Weber A. "Pflanzliche Hexokinase-Homologe". Poster, Deutsche Botanikertagung, Biannual Meeting of the German Botanical Society, Jena, Germany, 2000.

Invited Lectures at Academic Institutions

- Arizona State University, Tempe, AZ, USA, February 2017
Arizona State University, Tempe, AZ, USA, November 2016
University of Marburg, Germany, June 2016
University of Hamburg, Germany, May 2016
LMU München, Center for Advanced Studies, München, Germany, May 2016
IBET, Lisbon, Portugal, March 2016
University of Tübingen, Germany, March 2016
University of Bonn, Germany, February 2016

Albrecht-von-Haller Institut für Pflanzenwissenschaften, University of Göttingen, February 2016
Max-Planck-Institute Molecular Plant Physiology, Golm, Germany, January 2016
Postec, Pohang, South Korea, November 2015
ETH Zürich, Zürich, Switzerland, October 2015
University of Regensburg, Regensburg, Germany, June 2015
Michigan State University, East Lansing, MI, March 2015
University of Geneva, Geneva, Switzerland, December 2014
University of Jena, Jena, Germany, October 2014
University of Cologne, Cologne, Germany, September 2014
Free University of Berlin, Berlin, Germany, July 2014
University of California, Berkeley, CA, USA, April 2014
Donald Danforth Plant Science Center, St Louis, MO, USA, April 2014
Purdue University, West Lafayette, IN, USA, April 2014
Umeå Plant Science Center, Umeå, Sweden, June 2013
John-Innes-Institute, Norwich, UK, March 2013
Institute of Plant Biology, University of Paris-Sud IX, Orsay, France, February 2013
Max-Planck-Institute Molecular Plant Physiology, Golm, Germany, January 2013.
Michigan State University, East Lansing, MI, December 2012.
University of Western Australia, Perth, July 2012.
Technical University Munich, Germany, May 2011.
Helmholtz Institute, Neuherberg (Munich), Germany, December 2010.
Rutgers University, New Brunswick, NJ, August 2010.
University of Darmstadt, Darmstadt, Germany, June 2010.
University of Montpellier, Montpellier, France, May 2010.
Max-Planck-Institute for Plant Breeding Research, Cologne, Germany, March 2010.
Michigan State University, East Lansing, MI, February 2010.
Oklahoma State University, Stillwater, OK, January 2010.
University of Vienna, Vienna, Austria, July 2009.
University of Osnabrück, Osnabrück, Germany, May 2009.
University of Cambridge, Cambridge, UK, February 2009.
University of Münster, Münster, Germany, December 2008.
University of Münster, Münster, Germany, November 2008.
“Shedding light on a mysterious organelle - proteomics and reverse genetics approaches to understanding peroxisome function”. University of Braunschweig, Braunschweig, Germany, May 2008.
“Systems Biology of Intracellular Metabolite Transport in Plant Cells”. Department of Plant Physiology, University of Rostock, Rostock, Germany, January 2008.
“Systems Biology of Intracellular Metabolite Transport in Plant Cells”. Institute for Phytosphere Research, Jülich Research Center, Jülich, Germany, January 2008.
“Systems Biology of Intracellular Metabolite Transport in Plant Cells”. ECROPS Seminar-Series, University of Erlangen, Erlangen, Germany, January 2008.
“Evolutionary and Functional Genomics of Intracellular Metabolite Transport in Plant Cells.” Department of Biology, University of Kaiserslautern, Kaiserslautern, Germany, December 2007.
“Profiling Plant Transcriptomes Using Massively-Parallel Pyrosequencing.” Department of Molecular Biology, Center for Comparative Genomics, Copenhagen, DK, October 2007.

- “Systems Biology of Intracellular Metabolite Transport in Plant Cells.” Department of Plant Biology, Martin-Luther-University, Halle, Germany, October 2007.
- “Systems Biology of Intracellular Metabolite Transport in Plant Cells.” Department of Genetics, Albertus-Magnus-University, Cologne, Germany, September 2007.
- “Functional and evolutionary genomics of intracellular metabolite transport in plant cells.” Department of Plant Biology, Ludwig-Maximilians-Universität München, Germany, July 2007.
- “Functional and evolutionary genomics of intracellular metabolite transport in plant cells.” Universität Bonn, Bonn, Germany. May 2007.
- “Making the connections – Intracellular metabolite transport in plant cells.” University of Minnesota, St. Paul, MN. April 2007.
- “Functional and evolutionary genomics of intracellular metabolite transport in plant cells.” Department of Biology, Colorado State University, Fort Collins, CO. March 2007.
- “Making the connections – Intracellular metabolite transport in plant cells.” Department of Botany, Oklahoma State University, Stillwater, OK. November 2006.
- “Functional and evolutionary genomics of intracellular solute transport in plant cells”. Department of Plant Biology, Noble Foundation, Ardmore, OK. November 2006.
- “Making the connections – Intracellular metabolite transport in plant cells.” Department of Genetics, Development, and Cell Biology, Iowa State University, Ames, IA. November 2005.
- “Making the connections – Intracellular metabolite transport in plant cells.” Heinrich-Heine-Universität, Düsseldorf, Germany. October 2005.
- “Making the connections – Intracellular metabolite transport in plant cells.” University of Tokyo, Institute for Molecular and Cellular Biosciences, Halle. August 2005.
- “Making the connections – Intracellular metabolite transport in plant cells.” Martin-Luther-Universität Halle-Wittenberg, Halle. July 2005.
- “Making the connections – Intracellular metabolite transport in plant cells.” Georg-August-Universität Göttingen, Institut für Biochemie der Pflanze. July 2005.
- “Red, hot, sweet, and sour: genomics of the thermo-acidophilic red alga *Galdieria sulphuraria*.” Georg-August-Universität Göttingen, Institut für Mikrobiologie und Genetik. July 2005.
- “Red, hot, sweet, and sour: Genomics of the thermoacidophilic red microalga *Galdieria sulphuraria*.” Department of Biochemistry, University of Wisconsin-Madison, June 2005.
- “Red, hot, sweet, and sour: Genomics of the thermoacidophilic red microalga *Galdieria sulphuraria*.” Department of Botany, University of Wisconsin-Madison, June 2005.
- “The red, hot, sweet, and sour Genome Project: *Galdieria sulphuraria*, a red alga that lives in hot acid.” University of Iowa, Iowa City, IA. April 2005.
- “Intracellular transport and regulation of metabolic networks in plants”. Westfälische-Friedrichs-Wilhelms-Universität, Münster, Germany. January 2005.
- “Intracellular transport and regulation of metabolic networks in plants”. Purdue University, West Lafayette, IN. November 2004.
- “Intracellular transport and regulation of metabolic networks in plants”. MSU-DOE Plant Research Lab Retreat. October 2004.
- “Transporters of all stripes – what do we know about transporters in the plastid envelope membrane”. Cornell University, Ithaca, NY. October 2004.
- “A novel model for the rapid modulation of nitrate reduction in leaves by redox coupling of plastidic and cytosolic metabolism”. Ohio State University, Columbus, OH. March 2004
- “Intracellular transport and regulation of metabolic networks in plants”. Botanische Staatsanstalten, Ludwig-Maximilians-Universität, Munich, Germany, January 2004.
- “Intracellular transport and regulation of metabolic networks in plants”. Department of Molecular

- Plant Physiology, Friedrich-Alexander-Universität, Erlangen, Germany, January 2004.
- “Metabolite transporters in the plastid envelope membrane - connecting and coordinating elements between metabolism in cytosol and plastids”. Institute of Biological Chemistry, Washington State University, Pullman, WA. December 2003.
- “Biochemistry, molecular biology, and genetics of intracellular transport in plant cells”. University of Düsseldorf, Germany. January 2003.
- “N-metabolism and interaction of C/N pathways in plastid and cytosol. Role of plastidic dicarboxylate translocators and PII.” Symposium of DFG Key Action Membrane Transport, Schloss Hirschberg, Germany, September 2002.
- “N-metabolism and interaction of C/N pathways in plastid and cytosol”. INRA-Versailles, France. June 2002.
- “The interface between stroma and cytosol - transporters of the plastid envelope membrane”. John-Innes Centre, Norwich, UK. January 2002
- “Transporters of the plastid envelope membrane as connecting elements between plastidic and cytosolic metabolism”. Ruhr-Universität Bochum, Plant Biochemistry Department. November 2001.
- “Transporters of the plastid envelope membrane as connecting elements between plastidic and cytosolic metabolism.” John-Innes Centre, Norwich, UK. November 2001.
- “Transporters of the plastid envelope membrane as connecting elements between plastidic and cytosolic metabolism”. IACR-RES, Rothamsted, UK. November 2001.
- “Transporters of the plastid envelope as connecting elements between plastidic and cytosolic C- and N-metabolism”. Institute de Biotechnologie des Plantes, Orsay, France. June 2001.
- “Transporters of the plastid envelope as connecting elements between plastidic and cytosolic C- and N-metabolism”. University of Saskatchewan, Saskatoon, Canada. March 2001.
- “Transporters of the plastid envelope as connecting elements between plastidic and cytosolic C- and N-metabolism”. University of North Carolina at Wilmington, USA. February 2001.
- “Transporters of the plastid envelope as connecting elements between plastidic and cytosolic C- and N-metabolism”. Max-Planck-Institute of Molecular Plant Physiology, Golm. December 2000.
- “Transporter der Plastiden-Hüllmembran als Verbindungselemente des plastidären und cytosolischen Kohlenstoff- und Stickstoff-Stoffwechsels”. Botanisches Kolloquium, Universität zu Köln. July 2000.

LIST OF COURSES TAUGHTUniversity of Cologne

SS95	Lab Course „Molecular Biology and Biochemistry of Plant Metabolism“
WS95/96	Exercises in Botany for Beginners (Anatomy and Morphology of Seed Plants) Lab Course „Molecular Biology and Biochemistry of Plant Metabolism“
SS96	Lab Course „Molecular Biology and Biochemistry of Plant Metabolism“
WS96/97	Exercises in Botany for Advanced Students
SS97	Exercises in Botany for Advanced Students Lab Course “Methods in Plant Molecular Biology and Genetics”
WS97/98	Exercises in Botany for Advanced Students Lab Course “Methods in Plant Molecular Biology and Genetics”
SS98	Exercises in Botany for Advanced Students Lab Course “Methods in Plant Molecular Biology and Genetics” Seminar “Transport Processes in Plants”
WS98/99	Exercises in Botany for Beginners (Anatomy and Morphology of Seed Plants) Lab Course “Methods in Plant Molecular Biology and Genetics” Seminar “Molecular Physiology of Transport Processes in Plants”
SS99	Exercises in Botany for Advanced Students Lab Course “Methods in Plant Molecular Biology and Genetics” Seminar “Membrane Transporters in Plant Cells” Seminar with Exercises “Use of the Internet in Biology”
WS99/00	Exercises in Botany for Advanced Students Lab Course “Methods in Plant Molecular Biology and Genetics” Seminar “Biotechnology of Higher Plants”
SS00	Lab Course “Molecular Plant Physiology” Lab Course “Methods in Plant Molecular Biology and Genetics” Seminar “Biotechnology of Higher Plants” Seminar with Exercises “Use of the Internet in Biology”

Michigan State University (2002 through 2007)

FS02	Lecture “Plant Ammonia Assimilation” (guest lecture in PLB301, 56 students) Co-taught “Plant Biochemistry” BCH864 (18 students)
FS03	Lecture and Lab “Introductory Plant Physiology” PLB301 (54 students) “Undergraduate Research” PLB498 (2 students) Weekend Workshop NSC901, Frontiers in Science (30 students)
FS04	Lecture and Lab “Introductory Plant Physiology” PLB301 (41 students) “Undergraduate Research” PLB498 (2 students) Seminar “Cell and Molecular Biology Research Forum” CMB 892 (17 students)
FS05	Lecture and Lab “Introductory Plant Physiology” PLB301 (43 students) “Undergraduate Research” PLB498 (3 students)
SS06	Seminar Course “Statistical Analysis of Microarray Data” STT890, co-taught with Dr. Marianne Huebner (MSU Department of Statistics and Probability).
FS06	Lecture and Lab “Introductory Plant Physiology” PLB301 (43 students) “Undergraduate Research” PLB498 (1 student)

Heinrich-Heine-Universität Düsseldorf (since April 2007)

SS07	Lecture and Lab BIO10 “Plant Physiology and Plant Biochemistry” (7 SWS, 160 students)
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- WS07/08 A-Module: “Molecular Physiology and Biochemistry of Plant Primary Carbon Metabolism” (6 SWS, 15 students)
 A-Module: “PC-based Analysis and Presentation of Biological Data” (6 SWS, 15 students)
 Seminar: “Genomics, Proteomics, Metabolomics ... What is ‘Omics and What Can You Do With It?’” (2 SWS, 13 students)
- SS08 Lecture and Lab BIO10 “Plant Physiology and Plant Biochemistry” (7 SWS, 235 students)
 A-Module: “Molecular Physiology and Biochemistry of Plant Primary Carbon Metabolism” (6 SWS, 12 students)
 A-Module: “PC-based Analysis and Presentation of Biological Data” (6 SWS, 13 students)
 Seminar: “Genomics, Proteomics, Metabolomics ... What is ‘Omics and What Can You Do With It?’” (2 SWS, 6 students)
- WS08/09 A-Module: “Molecular Physiology and Biochemistry of Plant Primary Carbon Metabolism” (6 SWS, 12 students)
 A-Module: “PC-based Analysis and Presentation of Biological Data” (6 SWS, 13 students)
 Seminar: “Genomics, Proteomics, Metabolomics ... What is ‘Omics and What Can You Do With It?’” (2 SWS, 6 students)
- SS09 Lecture and Lab BIO10 “Plant Physiology and Plant Biochemistry” (7 SWS, 235 students)
 A-Module: “Molecular Physiology and Biochemistry of Plant Primary Carbon Metabolism” (6 SWS, 12 students)
 A-Module: “PC-based Analysis and Presentation of Biological Data” (6 SWS, 13 students)
 Seminar: “Genomics, Proteomics, Metabolomics ... What is ‘Omics and What Can You Do With It?’” (2 SWS, 6 students)
- WS09/10 A-Module: “Molecular Physiology and Biochemistry of Plant Primary Carbon Metabolism” (6 SWS, 12 students)
 A-Module: “PC-based Analysis and Presentation of Biological Data” (6 SWS, 13 students)
 Seminar: “Genomics, Proteomics, Metabolomics ... What is ‘Omics and What Can You Do With It?’” (2 SWS, 6 students)
 Lecture “Integrative Topics in Plant Biology” (2 SWS, 15 students)
- SS10 Lecture and Lab BIO10 “Plant Physiology and Plant Biochemistry” (7 SWS, 235 students)
 A-Module: “Molecular Physiology and Biochemistry of Plant Primary Carbon Metabolism” (6 SWS, 12 students)
 A-Module: “PC-based Analysis and Presentation of Biological Data” (6 SWS, 13 students)
 Seminar: “Genomics, Proteomics, Metabolomics ... What is ‘Omics and What Can You Do With It?’” (2 SWS, 6 students)
- WS10/11 Lecture BIO 210 “Biochemistry” (4 SWS, 320 students)
 A-Module: “Molecular Physiology and Biochemistry of Plant Primary Carbon Metabolism” (6 SWS, 12 students)
 A-Module: “PC-based Analysis and Presentation of Biological Data” (6 SWS, 13 students)
 Seminar: “Genomics, Proteomics, Metabolomics ... What is ‘Omics and What Can You Do With It?’” (2 SWS, 6 students)
 Lecture “Integrative Topics in Plant Biology” (2 SWS, 15 students)
- SS11 V-Module: “Molecular Physiology and Biochemistry of Plant Primary Carbon

	Metabolism” (6 SWS, 12 students) V-Module: “PC-based Analysis and Presentation of Biological Data” (6 SWS, 13 students) M-Module: “From Light Energy to Biomass” (18 SWS, 8 students) Seminar: “Genomics, Proteomics, Metabolomics ... What is ‘Omics and What Can You Do With It?’” (2 SWS, 6 students)
WS11/12	Lecture BIO 210 “Biochemistry” (4 SWS, 320 students) V-Module: “Molecular Physiology and Biochemistry of Plant Primary Carbon Metabolism” (6 SWS, 12 students) V-Module: “PC-based Analysis and Presentation of Biological Data” (6 SWS, 13 students) Seminar: “Genomics, Proteomics, Metabolomics ... What is ‘Omics and What Can You Do With It?’” (2 SWS, 6 students)
SS12	Lecture “Integrative Topics in Plant Biology” (2 SWS, 15 students) V-Module: “Molecular Physiology and Biochemistry of Plant Primary Carbon Metabolism” (6 SWS, 12 students) V-Module: “PC-based Analysis and Presentation of Biological Data” (6 SWS, 13 students) M-Module: “From Light Energy to Biomass” (18 SWS, 8 students) Seminar: “Genomics, Proteomics, Metabolomics ... What is ‘Omics and What Can You Do With It?’” (2 SWS, 6 students)
WS12/13	Lecture BIO 210 “Biochemistry” (4 SWS, 320 students) V-Module: “Molecular Physiology and Biochemistry of Plant Primary Carbon Metabolism” (6 SWS, 12 students) V-Module: “PC-based Analysis and Presentation of Biological Data” (6 SWS, 13 students) Seminar: “Genomics, Proteomics, Metabolomics ... What is ‘Omics and What Can You Do With It?’” (2 SWS, 6 students)
SS13	Lecture “Integrative Topics in Plant Biology” (2 SWS, 15 students) V-Module: “Molecular Physiology and Biochemistry of Plant Primary Carbon Metabolism” (6 SWS, 12 students) V-Module: “PC-based Analysis and Presentation of Biological Data” (6 SWS, 13 students) M-Module: “From Light Energy to Biomass” (18 SWS, 8 students) Seminar: “Genomics, Proteomics, Metabolomics ... What is ‘Omics and What Can You Do With It?’” (2 SWS, 18 students)
WS13/14	Lecture BIO 210 “Biochemistry” (4 SWS, 320 students) V-Module: “Molecular Physiology and Biochemistry of Plant Primary Carbon Metabolism” (6 SWS, 12 students) V-Module: “PC-based Analysis and Presentation of Biological Data” (6 SWS, 13 students) Seminar: “Genomics, Proteomics, Metabolomics ... What is ‘Omics and What Can You Do With It?’” (2 SWS, 6 students)
SS14	Lecture “Integrative Topics in Plant Biology” (2 SWS, 15 students) V-Module: “Molecular Physiology and Biochemistry of Plant Primary Carbon Metabolism” (6 SWS, 8 students) V-Module: “PC-based Analysis and Presentation of Biological Data” (6 SWS, 18 students) M-Module: “From Light Energy to Biomass” (18 SWS, 12 students) Seminar: “Genomics, Proteomics, Metabolomics ... What is ‘Omics and What Can You Do With It?’” (2 SWS, 18 students)

- WS14/15 Lecture BIO 210 “Biochemistry” (4 SWS, 407 students)
V-Module: “Molecular Physiology and Biochemistry of Plant Primary Carbon Metabolism” (6 SWS, 8 students)
V-Module: “PC-based Analysis and Presentation of Biological Data” (6 SWS, 7 students)
Seminar: “Genomics, Proteomics, Metabolomics ... What is ‘Omics and What Can You Do With It?’” (2 SWS, 4 students)
Lecture “Integrative Topics in Plant Biology” (2 SWS, 15 students)
- SS15 V-Module: “Molecular Physiology and Biochemistry of Plant Primary Carbon Metabolism” (6 SWS, 8 students)
V-Module: “PC-based Analysis and Presentation of Biological Data” (6 SWS, 18 students)
M-Module: “From Light Energy to Biomass” (18 SWS, 12 students)
Seminar: “Genomics, Proteomics, Metabolomics ... What is ‘Omics and What Can You Do With It?’” (2 SWS, 18 students)
- WS15/16 Lecture BIO 210 “Biochemistry” (4 SWS, 450 students)
V-Module: “Molecular Physiology and Biochemistry of Plant Primary Carbon Metabolism” (6 SWS, 9 students)
V-Module: “PC-based Analysis and Presentation of Biological Data” (6 SWS, 14 students)
Lecture “Integrative Topics in Plant Biology” (2 SWS, 8 students)
V-Module “Physical Biology of the Cell” (6 SWS, 5 students)
- SS16 V-Module: “Molecular Physiology and Biochemistry of Plant Primary Carbon Metabolism” (6 SWS, 9 students)
V-Module: “PC-based Analysis and Presentation of Biological Data” (6 SWS, 18 students)
M-Module: “From Light Energy to Biomass” (18 SWS, 12 students)
Seminar: “Genomics, Proteomics, Metabolomics ... What is ‘Omics and What Can You Do With It?’” (2 SWS, 18 students)

PEER REVIEWED PUBLICATIONS**Publication Metrics (July 2017)**

ISI Web of Knowledge: 179 publications with citation information; 7,611 total citations; *h*-index: 51; ISI Highly Cited Researcher 2016.

Google Scholar (<http://scholar.google.de/citations?user=fGsO4gYAAAAJ&hl=en>): 10,253 total citations, *h*-index: 59

2017

1. Fischer K, **Weber APM** (2017) Sometime a rocker-switch motion. *Nat Plants*, in press (DOI: 10.1038/s41477-017-0026-4).
2. Dijkhuizen L, Brouwer P, Bolhuis H, Reichart GJ, Koppers N, Huettel B, Bolger A, Li FW, Cheng S, Liu, Xin W, Gane KS, Pryer K, **Weber APM**, Bräutigam A, Schluepmann H (2017) Is there foul play in the leaf pocket? The metagenome of floating fern *Azolla* reveals endophytes that do not fix N₂ but may denitrify. *New Phytol*, in press.
3. Roell MS, Kuhnert F, Zamani-Nour S, **Weber APM** (2017) In Vitro Analysis of Metabolite Transport Proteins. *Methods Mol Biol* 1653: 83-96.
4. König S, Eisenhut M, Bräutigam A, Kurz S, **Weber APM**, Büchel C (2017) The Influence of a Cryptochrome on the Gene Expression Profile in the Diatom *Phaeodactylum tricornutum* under Blue Light and in Darkness. *Plant Cell Physiol*, in press.
5. Truse R, Hinterberg J, Schulz J, Herminghaus A, **Weber APM**, Mettler-Altman T, Bauer I, Picker O, Vollmer C (2017) Effect of Topical Iloprost and Nitroglycerin on Gastric Microcirculation and Barrier Function during Hemorrhagic Shock in Dogs. *J Vasc Res*, 54(2): 109-121.
6. Rademacher N, Wrobel TJ, Rossoni AW, Kurz S, Bräutigam A, **Weber APM**, Eisenhut M (2017) Transcriptional response of the extremophile red alga *Cyanidioschyzon merolae* to changes in CO₂ concentrations. *J Plant Physiol*, in press.
7. Hahn F, Eisenhut M, Mantegazza O, **Weber APM** (2017) Generation of Targeted Knockout Mutants in *Arabidopsis thaliana* Using CRISPR/Cas9. *Bio-protocol* 7: e2384; DOI:10.21769/BioProtoc.2384.
8. Mikulski P, Komarynets O, Facchinelli F, **Weber APM**, Schubert D (2017) Characterization of the Polycomb-Group Mark H3K27me3 in Unicellular Algae. *Front Plant Sci* 8: 607.
9. Heckmann D, Schlüter U, **Weber APM** (2017) Machine learning techniques for predicting crop photosynthetic capacity from leaf reflectance spectra. *Mol Plant*, 10(6): 878-890.
10. Brouwer P, Bräutigam A, Buijs VA, Tazelaar AO, van der Werf A, Schlüter U, Reichart

- GJ, Bolger A, Usadel B, **Weber APM**, Schluempmann H (2017) Metabolic Adaptation, a Specialized Leaf Organ Structure and Vascular Responses to Diurnal N₂ Fixation by *Nostoc azollae* Sustain the Astonishing Productivity of Azolla Ferns without Nitrogen Fertilizer. *Front Plant Sci* 31;8: 442. doi: 10.3389/fpls.2017.00442.
11. Brandenburg F, Schoffman H, Kurz S, Kraemer U, Keren N, **Weber APM**, Eisenhut M (2017) The Synechocystis MANGANESE EXPORTER Mnx is essential for manganese homeostasis in cyanobacteria. *Plant Physiol* 173(3):1798-1810.
12. Hahn F, Mantegazza O, Greiner A, Hegemann P, Eisenhut M, **Weber APM** (2017) An efficient visual screen for CRISPR/Cas9 activity in *Arabidopsis thaliana*. *Frontiers Plant Sci*, 8:39. doi: 10.3389/fpls.2017.00039.
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Nadine Hocken (PhD; DFG)

Nils Koppers (PhD; DFG)

Franziska Kuhnert (PhD; HHU)

Meng-Ying Lin (PhD; IMPRS)

Marc-Sven Röhl (PhD; BMBF)

Alessandro Rossoni (PhD; HHU)

Eva Maleckova (PhD; DAAD)

Thomas Wrobel (PhD; DFG)

Dagbegnon Angelo Romeo Agossou Yao (PhD; KAS)

Current Postdoctoral Associates

Dominik Brillhaus (HHU, Andreas Weber); DFG

Marion Eisenhut (U. Rostock, Martin Hagemann), Strasburger Award of the German Botanical Society; Postdoctoral Award of the German Section of the International Society for Endocytobiosis Research; HHU

Fabio Faccinelli (U. Bonn, Dorothea Bartels); HSP2020

Tatjana Goss, (U. Osnabrück, Guy Hanke); DFG

Nicole Linka (U. Kaiserslautern, Ekkehard Neuhaus), Feodor-Lynen-Fellow; HHU

Tabea Mettler-Altman (MPIMPP/Uni Potsdam, Mark Stitt); DFG

Otho Mantegazza (U. Milano, Martin Kater); DFG

Urte Schlüter (U. Erlangen, Uwe Sonnewald); DFG

Berkley Walker (U. of Illinois, Don Ort); Alexander-von-Humboldt Foundation

Shirin Zamani-Nour (U. Cologne, U.I. Flügge); Bill & Melinda Gates Foundation

Past Postdoctoral Associates

Ayumi Minoda, University of Tokyo

Roshan Shrestha, Research Associate, University of California, San Diego, CA

Vera Göhre, Staff Scientist, Institute of Microbiology, Heinrich-Heine-University

Gretel Hunzicker, Postdoctoral Associate, University of Tübingen

A. Jamaï, lost contact.

H. Kofler, MWG GmbH, Ebersberg, Germany

Lars M. Voll, Research Associate, Department of Biochemistry, University of Erlangen, Germany

Guillaume Barbier, Novozymes Inc., Davis, CA.

Anika Wiese, Research Associate, Forschungszentrum Jülich, Germany

David Gagneul, Maitre de Conférences, University of Lille, France

Marc Linka, Bayer AG, Germany

Thea Pick, Joint Biotechnology Institute, Berkeley

Andrea Bräutigam, Group Leader, IPK Gatersleben

Peter Lundquist, Postdoctoral Researcher, Nobel Foundation, Ardmore, Oklahoma

Past Graduate Students (Research Assistants)

K. Bernhardt (PhD), Production Quality Controller.

A. Bräutigam, (Diploma, PhD) University of Cologne, Cologne, Germany. Postdoctoral Fellow, Heinrich-Heine-Universität, Düsseldorf.

D. Chrobok (M. Sc.), PhD student, Umea University, Sweden.

Alisandra Denton (PhD), Postdoc, University of Aachen.

R. Horst, (Diploma), Postdoctoral Fellow, University of Washington, USA

N. Hocken (M.Sc.), Doctoral Student, Heinrich-Heine-University.

H. Kofler, (Diploma/Dr. rer. nat.) Operon GmbH; graded *summa cum laude*.

Marc Linka, (PhD), Bayer AG, Germany.

K. Ottmaier, (Diploma) University of Cologne, Cologne, Germany. Lost contact.

T. Pick (PhD) Postdoctoral Fellow, Heinrich-Heine-University Düsseldorf

C. Plohmann (PhD)

P. Renné, (Diploma/Dr. rer. nat.) University of Cologne, Cologne, Germany. Operon GmbH, Cologne.

C. Rosar, (PhD) Secondary Education Teacher (Gymnasiallehrer), Warburg, Germany.

J. Schneiderei, (Diploma) University of Cologne, Cologne, Germany. PAREXCEL, Berlin Germany.

Manuel Sommer (PhD), Postdoc, University of Berkeley.

O. Schon, (Diploma) Currently postdoc, University of Cambridge, Cambridge, UK.

Sarah Vigelius (Dr. rer. nat.), Bayer AG

A. Wiese, (Dr. rer. nat.), Assistant Professor, Juelich Research Center; graded *summa cum laude*

SERVICE IN COMMITTEES AND UNIVERSITY FUNCTIONS

Chair, Website Committee, Department of Plant Biology, Michigan State University (2003 – 2007)

Member, Admissions Committee, Cell & Molecular Biology Graduate Program, Michigan State University (2003 – 2005)

Member, Metabolic Networks and Genomics Planning Group (2003-2004)

Member, Admission Committee, Plant Biology Graduate Program, Michigan State University (2004 – 2006)

Chair, Admission Committee, Graduate Program in Genetics, Michigan State University (2005)

Member, Search Committee, Quantitative Plant Biologist; Department of Plant Biology, Michigan State University (2004/2005)

Member, Search Committee, Plant Biologist; DOE Plant Research Laboratory, Michigan State University (2004/2005)

Member, Search Committee, Faculty Positions in Bioinformatics and Proteomics, Michigan State University (2006/2007).

Member, Vorstand Wissenschaftliche Einrichtung Biologie, Heinrich-Heine-Universität, Düsseldorf (2007 - present)

Member, Search Committee, Faculty Positions in Plant Biology and Microbiology, Heinrich-Heine-Universität, Düsseldorf (2007 - 2008)

Chair, Admission Committee for Master Students, Heinrich-Heine-Universität, Düsseldorf (2007 - present)

Chair, “Perspektivkommission”, Heinrich-Heine-Universität, Düsseldorf (2007 - 2013)

Chair, Search Committee, Faculty Position in Cell Biology, Heinrich-Heine-Universität, Düsseldorf (2008-2009)

Member, Search Committee “Interaction of Plants with other Organisms”, Heinrich-Heine-Universität, Düsseldorf (2009)

Member, Search Committee “Quantitative Biology”, Heinrich-Heine-Universität, Düsseldorf (2009)

Chair, Search Committee “Plant Molecular Ecology and Physiology”, Heinrich-Heine-Universität, Düsseldorf (2010)

Chair, Search Committee “Plant Cell Biology and Biotechnology”, CEPLAS, Heinrich-Heine-Universität (2013)

Chair, Search Committee “Synthetic Biology”, Heinrich-Heine-University (2013)

Member, Directors Board, BioEconomy Science Center (BioSC, 2010-2014)

Associate Director, Department of Biology, Heinrich-Heine-Universität, Düsseldorf (2012 - 2015)

Director, Zentrum für Synthetische Lebenswissenschaften (Center for Synthetic Life Sciences), Heinrich-Heine-University, Düsseldorf (2013 -)