CURRICULUM VITAE – Graham Peers

ADDRESS
Department of Biology, Colorado State University

PHONE
970-491-6868 office

EDUCATION

2005	Ph.D., McGill University
1997	B.Sc. (Dual Honours), University of British Columbia

ACADEMIC POSITIONS

2017-present	Associate Professor, Biology, Colorado State University
2011-2017	Assistant Professor, Biology, Colorado State University
2006-2009	Post-Doctoral Scholar, University of California, Berkeley, CA

OTHER POSITIONS

2011	Researcher, J. Craig Venter Institute, San Diego, CA
2009-2011	Scientist II, Synthetic Genomics Inc., San Diego, CA

PUBLICATIONS & SCHOLARLY RECORD

PUBLISHED WORKS

Refereed Journal Articles (Impact Factor of Journals indicated by IF)

Cantrell, M., and **Peers, G.** (2017) A mutant of Chlamydomonas without LHCSR maintains high rates of photosynthesis, but has reduced cell division rates in sinusoidal light conditions. ***PLOS ONE*** DOI: 0.1371/journal.pone.0179395 **(IF:2.8)**

Caballero, M.A, Jallet, D., Shi, L., Rithner, C., Zhang, Y., and **Peers, G.** (2016) Quantification of chrysolaminarin from the model diatom *Phaeodactylum tricornutum*. ***Algal Research*** 20: 180-188. **(IF:5.0)**

Li, Z., **Peers, G.,** Dent, R.M., Bai, Y., Apel, W., Yang, S., Leonelli, L., Niyogi, K.K. (2016) Evolution of an atypical de-epoxidase for photoprotection in the green lineage. ***Nature Plants*** 2: 16140. DOI:10.1038/NPLANTS.2016.140 **(IF:10.3)**

Broeckling, C., Ganna, A., Layer, M., Brown, M., Sutton, B., Ingelsson, E., **Peers, G.**, Prenni, J. E. (2016) Enabling efficient and confident annotation of LC−MS metabolomics data through MS1 spectrum and time prediction. ***Analytical Chemistry***, 88: 9226–9234 **(IF:6.3)**

Gallina, A.A., Layer, M., King, Z.A., Levering, J., Palsson, B.O., Zengler, K. and **Peers G**. (2016) A *Phaeodactylum tricornutum* literature database for interactive annotation of content. ***Algal Research*** 18: 241-243. **(IF:5.0)**

Jallet, D., Caballero, M.A., Gallina, A.A., Youngblood, M. and **Peers, G.** (2016) Photosynthetic physiology and biomass partitioning in the model diatom *Phaeodactylum tricornutum* grown in a sinusoidal light regime. ***Algal Research*** 18: 51-60. **(IF:5.0)**

Levering, J., Broddrick, J., Dupont, C.L., **Peers, G.**, Beeri, K., Mayers, J., Gallina, A.A., Allen, A.A., Palsson, B.O., Zengler, K. (2016) Genome scale model reveals metabolic basis of biomass partitioning in a model diatom. ***PLOS ONE*** DOI:10.1371/journal.pone.0155038 **(IF:2.8)**

Shahbaz, M., Ravet, K., **Peers, G.**, Pilon, M. (2015) Prioritization of copper for the use in photosynthetic electron transport in developing leaves of hybrid poplar. ***Frontiers in Plant Science*** DOI: dx.doi.org/10.3389/fpls.2015.00407 **(IF:4.5)**

Adly, C.L, Tremblay, J.-E., Powell, R.T., Armstrong, E., **Peers, G**., and Price, N.M. (2015) Response of heterotrophic bacteria in a mesoscale iron enrichment in the northeast subarctic Pacific Ocean. ***Limnology and Oceanography*** 60:136-148. **(IF:3.4)**

Yang, W., Catalanotti, C., D'Adamo S., Wittkopp, T.M., Ingram-Smith, C.J., Mackinder, L., Miller T.E., Heuberger, A.L., **Peers**, **G.,** Smith, K.S., Jonikas, M.C., Grossman, A.R. and Posewitz, M.C. (2014) Alternative acetate production pathways in *Chlamydomonas reinhardtii* during dark anoxia and the dominant role of chloroplasts in fermentative acetate production, ***Plant Cell*** 26: 4499-4518 **(IF:8.7)**

Peers, G. (2014) Increasing algal photosynthetic productivity by integrating ecophysiology with systems biology. ***Trends in Biotechnology*** 32, 551-555. **(IF:13.4)**

Weyman, P, Beeri, K. Lefebvre, S., Rivera, J., Heuberger, A, **Peers, G.,** Allen, A., and Dupont, C. (2014) Inactivation of *Phaeodactylum tricronutum* urease gene using TALEN-based targeted mutagenesis. ***Plant Biotechnology Journal*** 13: 460-470. **(IF:7.4)**

Allorent, G., Tokutsu, R., Roach, T., **Peers, G**., Cardol, P., Girard-Bascou, J., Seigneurin-Berny, D., Petroutsos, D., Kuntz, M., Breyton, C., Franck, F., Wollman, F.-A., Niyogi, K.K., Krieger-Liszkay, A, Minagawa, J. and Finazzi, G. (2013) A dual strategy to cope with high light in *Chlamydomonas reinhardtii*. ***Plant Cell*** 22: 545-557 **(IF:8.7)**

Terauchi, A., **Peers, G.,** Kobayashi, M., Niyogi, K.K., Merchant, S.S. (2010) Trophic Status of *Chlamydomonas reinhardtii* influences the impact of iron deficiency on photosynthesis. ***Photosynthesis Research*** 105: 39-49. **(IF:3.9)**

Peers, G., Truong, T., Ostendorf, E., Busch, A., Elrad, D., Grossman, A.R., Hippler, M. and Niyogi, K.K. (2009) An ancient light harvesting protein is critical for the regulation of algal photosynthesis. ***Nature*** 462: 518-521. **(IF:40.1)**

Ahn, T.K., Avenson, T.J., **Peers, G.**, Li, Z., Dall'Osto, L., Bassi, R., Niyogi, K.K., and Fleming, G.R. (2009) Investigating energy partitioning during photosynthesis using an expanded quantum yield convention. ***Chemical Physics*** 357: 151-158. **(IF:1.7)**

Peers, G. and Niyogi, K.K. (2008) Pond scum genomics: The genomes of *Chlamydomonas* and *Ostreococcus*. ***Plant Cell***. 20: 502-507. **(IF:8.7)**

Peers, G. and Price, N.M. (2006) Copper-containing plastocyanin used for electron transport by an oceanic diatom. ***Nature***. 441: 341-344. **(IF:40.1)**

Peers, G., Quesnel, S-.A. and Price, N.M (2005) Copper requirements for iron acquisition and growth of coastal and oceanic diatoms. ***Limnology and Oceanography***. 50: 1149-1158. **(IF:3.4)**

Peers, G. and Price, N.M. (2004) A role for manganese in superoxide dismutase and the growth of iron-deficient diatoms. ***Limnology and Oceanography***. 49: 1774-1783. **(IF:3.4)**

Peers, G.S., Milligan, A.J. and Harrison, P.J. (2000) Assay optimization and regulation of urease activity in two marine diatoms. ***Journal of Phycology***. 36: 523-528. **(IF:2.6)**

Refereed Chapters in Books:

Jallet, D., Cantrell, M., and **Peers, G.** (2016) New Players for Photoprotection and Photoacclimation. in **Chloroplasts: Current Research and Applications**, H. Kirchoff *ed.* Caisiter Acadaemic Press. ISBN: 978-1-910190

Manuscripts in Review in Revision or in Preparation:

GreenCut protein CPLD49 of *Chlamydomonas reinhardtii* associates with thylakoid membranes and is required for cytochrome b6f complex accumulation. Wittkopp, T., Saroussi, S., Yang, W., Johnson, X., Kim, R., Heinnickel, M., Russell, J., Pruthong, W., Dent, R., Broeckling, C., **Peers, G.,** Lohr, M., Wollman, F.-A., Niyogi, K., and Grossman, A. ***In review at Plant Journal***.

A program for iron economy dyring deficiency in Arabidopsis rosettes targets specific Fe proteins. Hantzins, L., Kroh, G., Jahn, C., Cantrell, M., **Peers, G.,** Pilon, M., Ravet, K. ***In revision at Plant Physiology***.

Photosynthesis in Rapidly Changing Light: Physiological Response of the Cyanobacterium Synechocystis PCC6803 to Growth in a Photobioreactor. Andersson, B., Shen, C., Cantrell, M., Dandy, D.S., and **Peers, G.** ***Submitted to Plant Physiology.***

Sulfur supplementation increases the growth yield and bioremediation capability of a model cyanobacterium grown on wastewater centrate. Hughes, A., Sulesky, A., Andersson, B., and **Peers G.** ***In preparation at Algal Research***.

Triacylglycerol catabolism occurs in the mitochondria of the pennate diatom *Phaeodactylum tricornutm*. Jallet, D., Zhang, C., Mossburner, M., Allen, A.E., and **Peers, G.** ***In preparation for Plant Cell***.

CONTRACTS & GRANTS

Externally-Funded Projects as Co-PI

(2017-2022) Design, Synthesis, and Validation: Genome Scale Optimization of Energy Flux through Compartmentalized Metabolic Networks in a Model Photosynthetic Eukaryotic Microbe. Allen, A., Dupont, C, **Peers, G**., Young, J., Zengler, K, Zhou, W. DOE-BER (DE-SC0018344) **$1.98M to CSU.**

(2017-20) Rewiring algal carbon energetics for renewables (RACER), Laurens, L., Reardon, K.F., **Peers, G.**, McGowen, J., Quinn, J., Posewitz, M., Davis, R., Green, R., Yohn, C., Behnke, C. DOE-BETO (DE-FOA-0001471) **$925k to CSU**

(2015-17) Combined wastewater and photosynthetic biorefineries based on cyanobacteria; supplement NSF-EFRI **$49,220**

(2013-17) Integrated design of cyanobacterial biofineries, Reardon, K.F, Dandy, D., Peebles, C, Bradley, T., **Peers, G.**, NSF-EFRI, **$1.99M to CSU.**

(2012-17) Optimization of Energy Flow through Synthetic Metabolic Modules and Regulatory Networks in a Model Photosynthetic Eukaryotic Microbe, Allen, A., Dupont, C., Palsson, B., **Peers, G.,** DOE-BER, **$1.64M to CSU.**

Externally-Funded Pending Projects as PI

(2018-21) The Regulation of Energy Flow Through the Plastid Terminal Oxidase During Variable Light, **Peers, G.**, Reardon, K.F., DOE BES-Photosynthetic Systems $700,000. – *invited for full proposal*

Internally-Funded Awards

(2012) Tech Fee for new BZ332 laboratory, College of Natural Sciences, **$68,000**.
(2013) Tech Fee for microscopes used in BZ332/331/440, College of Natural Sciences, **$14,690**.
(2016) Tech Fee for Field Marine Biology (with Dr. Shane Kanatous) **$10,674**

OTHER ACTIVITIES

Awarded Patents

Dodge, C., **Peers, G.**, McCarren, J., Olaizola, M. (2016) Illumination simulator for algal growth. *U.S. Patent No. 9,329,131.* Washington, DC: Patent and Trademark Office.

Peers, G. (2015) Enhancement of biomass production by disruption of light energy dissipation pathways. *U.S. Patent No. 8,940,508.* Washington, DC: Patent and Trademark Office.

Provisional Patent Applications

Niyogi, K.K., Li, Z, Dent, R., **Peers, G.** (2016) Chlamydomonas violaxanthin de-epoxidase enzyme and its uses. *U.S. Patent Application Serial No. 62/351,535*

HONORS AND AWARDS

2007 Industrial R&D fellowship, NSERC, Canada –**declined**
2007 Richard Malkin Award (Ph.D. work), Western Photosynthesis Conference, CA
2004 Max Stern Graduate fellowship, McGill University, Canada

PAPERS PRESENTED/SYMPOSIA/INVITED LECTURES/PROFESSIONAL MEETINGS/WORKSHOPS

Invited Talks

2016, Systems biology insights into low light photoacclimation. Algal Biomass Summit, Phoenix, AZ.

2016, The dynamic response of diatom metabolism to light fluctuations. Universidad Autonoma de Baja California Sur, La Paz, BCS, Mexico.

2016, Investigating the systems level response of a marine diatom to decreasing light. Western Photosynthesis Congress, Tabernash, CO.

2016, Exploring the dynamics of photosynthesis in algae. Arizona State University. Tempe, AZ.

2015, A systems biology level study of photoacclimation to low light in the marine diatom *Phaeodactylum* uncovers a rapid change in catabolism to support cell division. Western Photosynthesis Congress, Pacific Grove, CA.

2014, Exploring the dynamics of photosynthesis in algae. University of Northern Colorado, Greeley, CO

2013**,** Kill switches: A discussion of points as they relate to algae. Intrinsic Biocontainment, J. Craig Venter Institute, Rockville, MD

2013, Tuning up pond scum and plants: Exploring photosynthetic efficiency in algae. Bio-agricultural Sciences and Pest Management, Colorado State University

2011, Emerging bioenergy research at Colorado State University: Photosynthetic efficiency. National Renewable Energy Laboratory, Golden, CO

2011, Looking for the prize of increased crop yields within the diversity of algal photosynthesis, Chemical and Biological Engineering, Colorado State University

2011, Ecophysiological insights into algal biology. Plant Research Laboratory, Michigan State University

2011, Tales of algal stress: Eco-physiological insights into algal biology. Dept. of Biology, Colorado State University.

2008, A non-photochemical quenching mutant of *Chlamydomonas* reveals a role for LHCSR/LI818 proteins. *34th Meeting of the American Society for Photobiology*. Burlingame, CA.

2008, The diversity of photoprotection mechanisms in algae and plants. Dept. of Biology, University of Western Ontario.

2008, How plankton survive in an iron-poor ocean. Dept. of Biology, Sonoma State University.

2006, The diversity of qE mechanisms in the green clade of eukaryotic photosynthesis. *Intro2 Network on Photosystem II : International Workshop*. Parsberg, Germany.

2005, Increased metabolic requirements for manganese and copper in Fe-deficient diatoms. Dept. of Plant and Microbial Biology, UC Berkeley.

2005, Altered trace metal requirements of Fe-deficient phytoplankton. Ocean Sciences Dept., UC Santa Cruz.

Workshop Contributor

2013, Intrinsic Biocontainment – J. Craig Venter Institute, Rockville, MD

2013, DOE-BETO Algae Biofuels Strategy – Arizona State University, Phoenix, AZ

2011, Bioenergy from Photosynthetic Microorganisms: What are the Basic Research Needs? NSF, Arlington, VA

Other Oral Presentations

2017, Physiological and Systems Level Observations of *Synechocystis* PCC 6803 Growing in a Rapidly Fluctuating Light Environment. Andersson, B., Park, S., Shen, C., Dandy, D., Reardon, K.F., Zhou, W. and **Peers, G.** Phycological Society of America Annual Meeting. Monterey, CA.

2017, Proteomics and transcriptomic analyses reveals major metabolic shifts in cyanobacteria exposed to dynamic light environments. Park, S., Zhang, Y., Andersson, B., Shen, C., Cantrell, M., Dandy, D.S., **Peers, G.** and Reardon, K.F. Algal Biomass Organization Summit, Salt Lake City, UT.

2016, A systems-level investigation of low-light photo-acclimation in a marine diatom. **Peers, G.**, Sindt, N, Jallet, D., Allen, A.A., Dupont, C.L., Prenni, J. E., Zhou, W., The 6th International Conference on Algal Biomass, Biofuels and Bioproducts. San Diego, CA.

2015, Photosynthetic Physiology of the model diatom *Phaeodactylum tricornutum* in a diel light regime. Jallet, D. and **G. Peers**. Eastern Regional Photosynthesis Congress. Woods Hole, MA.

2014, Identifying a novel type of violaxanthin de-epoxidase from *Chlamydomonas reinhardtii*. Li, Z., Dent, R.M., **Peers, G.,** Apel, W., Yang, S., Niyogi, K.K., *23rd Western Photosynthesis Conference,* Pacific Grove, CA.

2009, An ancient light harvesting protein is critical for the regulation of algal photosynthesis. **Peers, G.**, Truong, T., Elrad, D., Grossman, A.R. and Niyogi, K.K., *Plant Biology 2009* Honolulu, HI.

2008, LHCSR is an ancient member of the light harvesting complex superfamily and it is required for photoprotection in *Chlamydomonas reinhardtii***, Peers, G.**, Truong, T., Elrad, D., Grossman, A.R. and Niyogi, K.K., *50th Annual Meeting of the Canadian Society of Plant Physiologists*. Ottawa, ON.

2007, The rapid regulation of non-photochemical quenching and its mechanistic diversity in the green clade of eukaryotic photosynthesis. **Peers, G.**, Truong, T., Apel, W., Elrad, D., Grossman, A.R. and Niyogi, K.K., *Western Photosynthesis Congress 2007.* Pacific Grove, CA.

2007, A non-photochemical quenching mutant of *Chlamydomonas* reveals a role for LI818/LHCSR proteins **Peers, G.**, Truong, T., Elrad, D., Grossman, A.R. and Niyogi, K.K., *Photosynthesis 2007.* Glasgow, Scotland.

2005, Copper requirements of diatoms**, Peers, G.** and Price, N.M., *Center for Environmental Bio-Inorganic Chemistry (CEBIC) Annual Meeting*. Princeton, NJ.

2002, The importance of Mn for the physiology and ecology of Fe-deficient diatoms**, Peers, G.** and Price, N.M., *American Society for Limnology and Oceanography (ASLO) Summer Meeting*. Victoria, BC.

2000, Increase in superoxide dismutase activity in Fe-limited cultures of the marine diatom *Thalassiosira weissflogii,* **Peers, G.** and Price, N.M., *ASLO Meeting*. San Antonio, TX.

Poster Presentations

2017, Knockout of the mitochondrial acyl-coenzyme A dehydrogenase gene increases the lipid content of a marine diatom. Jallet, D. and **Peers, G.** Phycological Society of America Annual Meeting. Monterey CA.

2017, Functional characterization of two putative Plastid Terminal Oxidases in the diatom *Phaeodactylum tricornutum*. Jallet, D., and **Peers, G.** Western Photosynthesis Congress. Tomales Bay, CA. ***Winner of best Post-doctoral Scholar poster award.***

2017, Forward Genetic Screens for the Discovery of Functional Glucan Hydrolases in the Diatom *Phaeodactylum tricornutum*. Williams, J.M[1], Xing, D., Caballero, M. and **Peers, G.** Western Photosynthesis Congress. Tomales Bay, CA. – [1]undergraduate researcher

2017, Physiological and Systems Level Observations of *Synechocystis* PCC 6803 Growing in a Rapidly Fluctuating Light Environment. Anderson, B., Park, S., Shen, C., Dandy, D. S., Reardon, K.F., **Peers. G**. Western Photosynthesis Congress, Tomales Bay, CA.

2017, Distinguishing the Roles of UDP-Glucose Diphosphorylases in the Diatom *Phaeodactylum tricornutum.* Caballero, M., Jallet, D., Mossburner, M., Allen, A.E., and **Peers, G.** Western Photosynthesis Congress, Tomales Bay, CA.

2017, The absence of excitation dependent quenching impacts the fitness and photophysiology of Chlamydomonas reinhardtii. Cantrell, M and **Peers, G.** Western Photosynthesis Congress, Tomales Bay, CA.

2016, Testing episome based gene expression knock down in the marine diatom *Phaeodactylum tricornutum*. Waneka, G.[1], Jallet, D., and **Peers G.**, The 6th International Conference on Algal Biomass, Biofuels and Bioproducts. San Diego, CA. – [1]undergraduate researcher

2016, Photosynthetic physiology and biomass partitioning in the model diatom *Phaeodactylum tricornutum* grown in a sinusoidal light regime. Jallet, D., Caballero, M.C., Gallina, A.A., Youngblood, M. and **Peers, G.,** The 17th International Congress on Photosynthesis. Maastricht, The Netherlands.

2016, Biochemistry driven investigation of chrysolaminarin-related enzymes from the diatom *Phaeodactylum tricornutum*. Caballero, M.A. and **Peers, G.** Western Photosynthesis Congress. Tabernash, CO. ***Winner of best graduate poster award***

2016, The loss of excitation dependent quenchings impact on the fitness and photophysiology of *Chlamydomonas reindardtii*. Cantrell, M.B., and **Peers. G.** Western Photosynthesis Congress. Tabernash, CO

2016, Photosynthetic physiology of the model diatom *Phaeodactylum tricornutum* under a sinusoidal light regime. Jallet, D., Gallina, A.A., Cabllero, M.A., Youngblood, M, and **Peers, G.** Western Photosynthesis Congress. Tabernash, CO.

2106, Mechanisms of carbon partitioning into chrysolaminarin, the storage polysaccharide of diatoms. Caballero, M.A., **Peers, G.**, Allen, A.E. *Department of Energy 2016 Genomic Science Contractor-Grantee Meeting XIV*, Washington, DC.

2016, A systems level investigation of low-light acclimation in the marine diatom *Phaeodactylum tricornutum*. **Peers, G.,** Sindt, N., Zhou, W., Prenni, J., Dupont, C.L. and Allen, A.E. *Department of Energy 2016 Genomic Science Contractor-Grantee Meeting XIV*, Washington, DC.

2015, Identification of a novel beta-1,3 glucan-binding protein from *Phaeodactylum tricornutum*. Caballero, M.A., and **Peers, G**. Molecular Life of Diatoms 2015. Seattle, WA.***Winner of young scientist award****

2015, A *Phaeodactylum tricornutum* literature database for interactive annotation of content. Gallina, A.A., King, Z., Levering, J., **Peers, G.,** Palsson, B.O., and Zengler, K. Molecular Life of Diatoms 2015. Seattle, WA.

2015, A putative NADPH-quinone oxidoreductase encoded by the slr1791 gene in *Synechocystis* PC6803. Cole, L.F., Youngblood, M.T., **Peers, G.** Eastern Regional Photosynthesis Congress. Woods Hole, MA. ***Winner of best undergraduate student poster****

2015, Responses of the photosynthetic apparatus to a diel light regime in the model diatom *Phaeodactylum tricornutum*. Jallet, D., and **Peers G.** Western Photosynthesis Congress. Pacific Grove, CA.

2014, The loss of state transitions and excitation dependent quenching impacts the fitness and photophysiology of *Chlamydomonas reinhardtii*. Cantrell, M. and **Peers, G**. Eastern Regional Photosynthesis Meeting. Woods Hole, MA**** Winner of best graduate student poster**.**

2014, A systems-wide investigation of photosynthetic algae during a shift from excess to light limiting conditions using multi-platform metabolomics and proteomics. Sindt, N., Broeckling, C., **Peers, G.**, and Prenni, J. American Society of Mass Spectroscopy Annual Meeting. Baltimore, MD.

2014, Metabolic rearrangement within the diatom *Phaeodactylum* during a shift from excess to limiting light, Sindt, N., Prenni, J. E. and **Peers, G.** *CMB/MCIN/BMB/MIP Spring Poster Symposium*, Fort Collins, CO

2014, The loss of state transitions and excitation dependent quenching impacts the fitness and photophysiology of *Chlamydomonas reinhardtii*, Cantrell, M. and **Peers, G.,** *CMB/MCIN/BMB/MIP Spring Poster Symposium*, Fort Collins, CO

2014, The physiological effects of fluctuating light on *Synechocystis*, Youngblood, M.T.; Caballero, M. A.; Park, S.; Reardon K.F.; and **Peers, G**., *CMB/MCIN/BMB/MIP Spring Poster Symposium,* Fort Collins, CO.

2014, Disrupting polysaccharide metabolism to enhance lipid productivity in the diatom *Phaeodactylum tricornutum*, Caballero, M. and **Peers, G.,** *CMB/MCIN/BMB/MIP Spring Poster Symposium*, Fort Collins, CO.

2014, Integrating energy transduction from light absorption to biofuel precursors in the alga *Phaeodactylum tricornutum*, **Peers, G**., Sindt, N., Caballero, M., Park, S., Broeckling, C., Palsson, B., Dupont, C. and Allen, A., *Department of Energy 2014 Genomic Science Contractor-Grantee Meeting XII*, Washington, DC.

2014, Isolation and characterization of a high Pmax mutant from *Chlamydomonas reinhardtii,* Bai, Y., **Peers, G.**, Niyogi, K.K. *23rd Western Photosynthesis Conference,* Pacific Grove, CA

2013, Identification of differentially abundant proteins in continuous or oscillating light in *Synechocystis* sp. PCC 6803 by comparative proteomics, Caballero, M. A., Park, S., Reardon, K. and **Peers, G**., *The Colorado Center for Biorefining and Biofuels (C2B2) Semi-Annual Meeting*, Boulder, CO.

2013, Changes in photosynthetic physiology and metabolite pools associated with photoacclimation to low light in *Phaeodactylum tricornutum*, Sindt, N., Prenni, J. E. and **Peers, G.** *C2B2 Semi-Annual Meeting*, Fort Collins, CO

2013, Identification of cyanobacterial proteins that are differentially abundant in continuous or rapidly oscillating light regimes, Caballero, M. A., Park, S., Reardon, K. and **Peers, G**., *CMB/MCIN/BMB/MIP Spring Poster Symposium*, Fort Collins, CO.

2013, Comparative proteomics of *Synechocystis* sp. PCC 6803 grown in constant or rapidly oscillating light conditions, Caballero, M. A., Park, S., Reardon, K. and **Peers, G.,** *22nd Western Photosynthesis Conference*, Monterrey, CA

2013, Exploring the mechanism behind reduced productivity of *Synechocystis* in industrially-relevant light conditions, Youngblood, M.T.; Caballero, M. A.; Park, S.; Reardon K.F.; and **Peers, G**., *C2B2 Semi-Annual Meeting,* Fort Collins, CO.

2013, Isolation and characterization of a high Pmax mutant from *Chlamydomonas reinhardtii.,* Bai, Y., **Peers, G.**, Niyogi, K.K. *International Congress on Photosynthesis,* St. Louis, MO

2008, Functional characterization of stress-induced light-harvesting proteins in *C. reinhardtii*, Ostendorf, E.,

Peers, G., Busch, A., Naumann, B., Kirchhoff, H., Niyogi, K.K., and Hippler, M., *13th International Chlamydomonas Conference*. Hyeres-les-Palmiers, France.

2005, A role for copper in the photosynthetic apparatus of a marine diatom, **Peers, G.** and Price, N.M, *Plant Biology 2005*. Seattle, WA.

2004, Physiological interactions of Fe with Mn and Cu in marine diatoms: the role of antioxidant enzymes and electron transport, **Peers, G.** and Price, N.M., *13th International Congress of Photosynthesis.* Montreal, QC.

2004, Iron uptake and elemental composition of phytoplankton in response to Fe-enrichment, Price, N.M., Tremblay, J.E., and **Peers G.,** *SOLAS Annual Meeting.* Montreal, QC.

2004, Iron limitation of heterotrophic bacteria in the subarctic Pacific Ocean, Adly, C.L., Armstrong, E., **Peers, G**., Tremblay, J.E. and Price N.M., *Ocean Sciences Meeting*. Honolulu, HI.

2003, A role for Mn in superoxide dismutases and the growth of Fe-deficient diatoms, **Peers, G.** and Price N.M. *CEBIC Annual Meeting*. Princeton, NJ.

2001, Regulation of ascorbate peroxidase activity by light and Fe in *Thalassiosira weissflogii*. Adly C.L., **Peers, G**. and Price, N.M., *CEBIC Annual Meeting*. Princeton, NJ.

2001, **Peers, G.** Price, N.M. Substitution between Mn and Fe in a marine diatom, *CEBIC Annual Meeting. Princeton*, NJ.

1999, Increase in superoxide dismutase activity in Fe-limited cultures of the marine diatom *Thalassiosira weissflogii* (Actin), **Peers, G.** and Price, N.M., *Forum Québecois en Sciences de la Mer.* Institute Maurice Lamontagne, Rimouski, QC.

1999, The effects of Fe deficiency on SOD activities in the marine diatom *Thalassiosira weissflogii* (clone Actin), **Peers, G.** and Price, N.M., *North-East Algal Symposium*. Plymouth, MA

Other Professional Meeting Contributions

2016, **Session Chair:** Western Photosynthesis Conference, Tabernash, CO
2011, **Session Chair**: Bioenergy, 20th Western Photosynthesis Conference, Pacific Grove, CA

TEACHING AND ADVISING

TEACHING:

Year	Semester	Course No./Title	Cr. Hrs.	Enrollment
2017	*Fall*	*BZ310 Cell Biology*	*3(50%)*	*154*
2017	*Summer*	*BZ482A Field Marine Biology*	*3 (50%)*	*7*
2017	*Spring*	*BZ472 Field Mar. Biol. Tech.*	*1 (50%)*	*7*
2017	*Spring*	*BZ415 Marine Biology*	*3(50%)*	*60*
2016	*Fall*	*BZ332 Intro to Phycology*	*4*	*10*
2016	*Summer*	*BZ482A Field Marine Biology*	*3 (50%)*	*7*
2016	*Spring*	*BZ472 Field Mar. Biol. Tech.*	*1 (50%)*	*7*
2016	*Spring*	*BZ415 Marine Biology*	*3 (50%)*	*30*
2015	*Fall*	*LIFE103 Biol. of Organism*	*3(50%)*	*192 (service course)*
2014	Fall	*BZ332 Intro to Phycology*	*4*	*9*
2014	*Spring*	*BZ792 Communication Seminar*	*1(50%)*	*12*
2013	*Fall*	*BZ332 Intro to Phycology*	*4*	*9*
2013	*Fall*	*LIFE103 Biol. of Organisms*	*3 (50%)*	*189 (service course)*
2012	*Fall*	*BZ332 Intro to Phycology*	*4*	*21*
2012	*Spring*	*BZ792 Communication Seminar*	*1(50%)*	*12*

ADVISING:

STUDENT ADVISING/GRADUATE SUPERVISION

UNDERGRADUATE STUDENTS:
4 Undergraduate Advisees 2017
4 Undergraduate Advisees - 2016
4 Undergraduate Advisees - 2015
6 Undergraduates Advisees -2014
5 Undergraduate Advisees - 2013
2 Undergraduate Advisees - 2012

GRADUATE STUDENTS:
Current Graduate Advisees:
Michael Cantrell (Ph.D.)
Alex Hughes (M.Sc.)
Graduated Advisees:
Michael Caballero (Ph.D. - 2017)
Bjoern Andersson (M.Sc. - 2017)
Matthew Borowitzka (M.Sc. - 2017)
Matthew Youngblood (M.Sc. - 2015)
Current Graduate Committee Memberships (not including those above):
2 M.Sc.
3 Ph.D.
Graduate Committee Memberships (for past 5 years, not including those above)
6 M.Sc.
5 Ph.D.

POSTDOCTORAL STUDENTS/RESEARCH ASSOCIATES:
Current: Dr. Denis Jallet, Dr. Maxwell Ware
Past: Dr. Alessandra Gallina, Currently at Mount Ogden Junior High School, UT.
Dr. David Xing, Currently Manager of U. Montana Genomics Core.

OUTREACH & SERVICE

COMMITTEES

Core Organizing Committee – International Conference on Microbial Photosynthesis (Vancouver, BC), 2018
Microbiome Steering Committee (CSU, interdisciplinary bridge), 2017-present
Graduate Student Committee, 2016-2017
Program in Plant Molecular Biology Executive Committee, 2012-2015
Biology Department Executive Committee, 2012-2014
Department Hiring Committee – Bioinformatics Faculty, 2012-2013
Abell Chair Hiring Committee (College of Engineering, interdisciplinary bridge), 2013-2015
Academic Council of the Energy Institute (CSU, interdisciplinary bridge) 2014-2015
Ad-hoc Committee to Explore Biology Capstone Experience 2014-2015

PROFESSIONAL AFFILIATIONS AND ACTIVITIES

Memberships in professional societies

American Society of Plant Biologists, International Society of Photosynthesis Researchers, Phycological Society of America

Grant reviewing

DOE-BER Early Career Award review panel – 2013
NASA-Astrobiology grant review panel – 2014
DOE-EPSCOR- Ad-hoc reviewer - 2014
DOE-BER Early Career Award review panel – 2015
DOE-BES- Ad-hoc reviewer – 2015
US-Israel-BARD – Ad-hoc reviewer - 2015
NSF-IES- Panel reviewer - 2016

Manuscript Refereeing

Nature, *Science*, *PNAS*, *Plant Cell, Planta, Limnology and Oceanography, Journal of Phycology, Photochemistry and Photobiology, The Journal of Experimental Marine Biology and Ecology*, *Phycologia, Journal of Biotechnology, New Phytologist, Photosynthesis Research, Algal Research, Metabolic Engineering*