PAUL G. FALKOWSKI

Date of Birth: 4 January l951
Place of Birth: New York City, New York
Married, two children

Educational Background

Degree	*Institution Conferring*	*Field*	*Year*
B.S.	City College of the City University of New York	Biology	l972
M.A.	City College of the City University of New York	Biology	l973
Ph.D.	University of British Columbia	Biology	1975

Professional Background

Post-Doctoral Research Associate, University of Rhode Island	1975-76
Assistant Scientist, Brookhaven National Laboratory	1976-78
Associate Scientist, Brookhaven National Laboratory	1978-80
Scientist, Brookhaven National Laboratory (with tenure from 1984)	1980-1993
Visiting Research Scientist, National Institute for Basic Biology (with Dr. Y. Fujita), Okazaki, Japan	1985
Visiting Research Scientist, Dept. of Pure and Applied Biology, Imperial College of Science and Technology (with Dr. J. Barber), London	1985
Visiting Lecturer in summer courses at Hawaii Institute of Marine Biology	1984, 5, 9
Adjunct Senior Scientist, Israel Oceanographic and Limnological Research Institute, Haifa	1985-
Head, Oceanographic Sciences Division, Brookhaven National Laboratory	1987-1991
Visiting Lecturer, Marine Molecular Biology Course, UCLA	1989
Adjunct Full Professor, State University of New York, Stony Brook	1990- 98
Visiting Research Director, CNRS - Laboratoire de physique et chimie marines, Villefranche-sur-Mer, France (with Dr. A. Morel)	1992
Senior Scientist, Brookhaven National Laboratory	1993-98
Deputy Chairman for Environmental Research, Department of Applied Science, Brookhaven National Laboratory	1994-98
Head, Environmental Biophysics and Molecular Biology Program, Brookhaven National Laboratory	1995-98
Distinguished Professor, Department of Geological Sciences and Institute of Marine and Coastal Science, Rutgers University	1998-
Distinguished Visiting Scholar, University of Hawaii	2002
Board of Governors Professor in Geological and Marine Science, Rutgers University	2005-
Director, Rutgers Energy Institute	2006-18
Visiting Research Director, CNRS – Station Biologique, Roscoff, France (with C. de	

Vargas) 2009
Adjunct Scientist, American Museum of Natural History, Dept. of Earth and Planetary. 2012 -
Sciences.
Bennett L. Smith Chair in Business and Natural Resources, Rutgers University 2012-

Awards

Medical Research Council Fellowship in Biophysics (1976)
Distinguished Visiting Professor, University of Maryland (1989)
Distinguished Visiting Professor, University of Rhode Island (1991)
John Simon Guggenheim Fellow (1992-1993)
Ida and Cecil Green Distinguished Professor (1995-96)
Thomas Byrne Award - University of British Columbia (1997)
Huntsman Medal (1998)
Hutchinson Award (2000)
Board of Trustees Award for Excellence in Research, Rutgers University (2000)
Fellow, American Geophysical Union (2001)
Fellow, American Academy of Arts and Sciences (2003)
Vernadsky Medal, European Geosciences Union (2005)
Board of Governors Professor, Rutgers University (2005)
Member, National Academy of Sciences (2007)
Fellow, American Academy of Microbiology (2008)
Gerald W. Prescott Award (2008)
Commemorative Medal Prince Albert 1^{ER} de Monaco (2010)
Ecology Institute Prize in Marine Ecology (2010)
Governing Council, National Academy of Sciences (2010-2013)
Grass Fellow, Radcliffe Institute for Advanced Studies (2011)
Fellow, Ecological Society of America (2012)
Einstein Professor, Chinese Academy of Sciences (2012)
The Rockefeller Foundation, The Bellagio Center, Academic Writing Residency (2017)
Tyler Prize (2018)

Recent Grants (partial listing)

NASA Astrobiology Institute - ENIGMA: **E**volution of **N**anomachines **I**n **G**eospheres and **M**icrobial **A**ncestors (2018-2023)
NASA Ocean Biology & Biogeochemistry - Measuring Chlorophyll Fluorescence Lifetimes in the Global Ocean to Interpret Satellite-Based Solar Induced Fluorescence Yields (2018-24)
NASA Exobiology - The Chemical Transformation of Minerals by Light and the Evolution of Prebiotic Metabolism (2016-22)
Gordon and Betty Moore Foundation - Constructing an Annotated Metabolic Map of Earth's Coupled Microbial Redox Reactions (2015-19)

Current Research Interests

Biogeochemical cycles, photosynthesis, plant physiology, biological oceanography, molecular biology, biochemistry and biophysics, physiological adaptation, evolution, mathematical modeling, symbiosis.

Member

National Academy of Sciences
American Academy of Arts and Sciences
Fellow, American Geophysical Union
Fellow, Ecological Society of America
Fellow, American Microbiological Society
American Society of Limnology and Oceanography
American Society of Plant Physiologists
American Phycological Society
The Oceanography Society
Executive Committee, NASA SeaWiFS Science Team
Member, Joint Global Ocean Flux Study Working Group on Primary Productivity
Chairman, Brookhaven Symposium in Biology 1980: Primary Productivity in the Sea
Chairman, First Gordon Conference on Biochemistry and Genetic Engineering of Microalgal Products (August 1988)
Associate Editor, Journal of Phycology (1984-1986)
Chairman, Brookhaven Symposium in Biology 1991: Primary Productivity and Biogeochemical Cycles in the Sea
Chairman, DOE Workshop on Molecular Bases of Ecology, 1991
Member, Joint Global Ocean Flux Study Working Group on Optics
Member, National Research Council Review Committee of Office of Naval Research
Alternative Fluorocarbon Environmental Assessment Study - Ecological Effects Advisory Committee
Guest Editor, Special Volume of Photosynthesis Research on Global Change (1992-1993)
Associate Editor: Global Change Biology (1995-2000)
Co-Chair, NATO Advanced Study Institute on Molecular Ecology of Aquatic Microbes (1994)
Chairman, DOE Initiative for Molecular Ecology Research - Convened Asilomar and Belmont Conferences and wrote/edited conference reports
Chairman, NASA Ocean Primary Productivity Working Group
Member, Scientific Advisory Board - Stazione Zoologica Anton Dohrn, Naples (1994-1999, 2021 - 2025)
Guest Editor, Special Issue of Deep Sea Research (1994, 2001)
Associate Editor, Limnology and Oceanography (1995- 2006)
U.S. Coordinator for IPCC reports on ocean research
Member, US Joint Global Ocean Flux Science Steering Committee
Member, Earth System Science and Applications Advisory Committee (NASA)
Chairman, NASA Biological Oceanography Advisory Board

Member, American Society of Microbiology Workshop on Global Change and Human Health (1997)
Co-organizer, XIth International Photosynthesis Congress
Member, Mars Architecture Planning Committee (NASA)
Member, International JGOFS Science Steering Committee
Board of Reviewing Editors, Science (2001 – 2014)
Member, Astrobiology Oversight Committee (NASA)
Member, US SOLAS Advisory Committee (NSF)
Member, EDOCC Planning Committee (NSF)
Member, DOE Ocean Carbon Sequestration Program
Member, US Carbon Cycle Science Steering Committee
Associate Editor, Encyclopedia of Biodiversity (Academic Press)
Associate Editor, Photosynthesis Research
Associate Editor, Protist (1995-1999)
Associate Editor, Ecosystems (1999-2003)
Member, The New York Academy of Sciences
Member, Sigma Xi
Member, International Geosphere Biosphere Program GAIM
Co-Chair, International Geosphere Biosphere Program—Carbon Cycle Working Group
Member, Astrobiology Roadmap Team, NASA (2002, 2012)
Section Head, Faculty of 1000
Member, National Research Council Committee on Defining and Advancing the Conceptual Basis of Biology
Member, Terrestrial Planet Finder Science Working Group
Associate Editor, Encyclopedia Oceanography, Elsevier
Director, Rutgers Energy Institute (2006-2018)
Co-Director, Center for Marine Biotechnology, Rutgers University (2005-)
Associate Editor, Treatise on Geochemistry, Vol. 11 Organic Geochemistry (2013)
Advisor, National Geographic Television (Atlas Media)
Board of Reviewing Editors – eLife (2017-19)
Editorial Advisory Board, The Year in Ecology and Conservation Biology, Annals of the New York Academy of Sciences
Chair, Section 63, Environmental Sciences and Ecology, National Academy of Sciences (2016 - 2019)
Member, NSF Advisory Committee on Geosciences (2016 – 2020)
Member, NSF Advisory Committee on the State of the Sciences in Astrobiology
Technical Advisory Board, NASA Center for Utilization of Biological Engineering in Space (CUBES), (2018 - present)
Committee Member, NAS Astrobiology Science Strategy for the Search for Life in the Universe. (2018-present)
RCSB Protein Data Bank Advisory Board (2018-present)
Science Advisor, Tara Oceans Project (2019 – present)
Editorial Advisory Board, Journal of the Royal Society Interface (2020-present)
Scientific Council, Stazione Zoologica Anton Dohrn (2020 – present)

Member, NAS Committee on Astrobiology and Planetary Science (CAPS), (2023-present)

Cruise Experience (partial listing – over 44 cruises)

R/V Knorr	Northwest Atlantic	1981
R/V Oceanus	Northwest Atlantic	1984
R/V Cape Hatteras (Chief Scientist)	Middle Atlantic Bight	1988
R/V Endeavor (Chief Scientist)	Middle Atlantic Bight	1989
R/V A'talant	Subtropical Atlantic/ Northwest Africa upwelling region	1992
R/V Atlantis/RSS Alvin	Juan de Fuca Ridge	2000
R/V Knorr	Black Sea	2001
R/V Oceanus	Sargasso Sea	2004
R/V Gould	Antarctica	2016

Peer-Reviewed Publications

1. Falkowski, P.G. 1973. The respiratory physiology of hemocyanin in *Limulus polyphemus*. J. Exp. Zool. 186: 1-6.
2. Falkowski, P.G. 1974. Facultative anaerobiosis in *Limulus polyphemus*: phosphoenolpyruvate carboxykinase and heart activities. Comp. Biochem. Physiol. 49B: 749-759.
3. Falkowski, P.G. 1975. Nitrate uptake in marine phytoplankton: (nitrate, chloride)-activated adenosine triphosphatase from *Skeletonema costatum* (Bacillariophyceae). J. Phycol. 11: 323-326.
4. Falkowski, P.G. 1975. Nitrate uptake in marine phytoplankton: comparison of half-saturation constants from seven species. Limnol. Oceanogr. 20: 412-417.
5. Falkowski, P.G. and D.P. Stone. 1975. Nitrate uptake in marine phytoplankton: energy sources and the interaction with carbon fixation. Mar. Biol. 32: 77-84.
6. Falkowski, P.G. and R.B. Rivkin. 1976. The role of glutamine synthetase in the incorporation of ammonium in *Skeletonema costatum* (Bacillariophyceae). J. Phycol. 12: 448-450.
7. Falkowski, P.G. 1977. A theoretical description of nitrate uptake kinetics in marine phytoplankton based on bisubstrate kinetics. J. theo. Biol. 64: 375-379.
8. Falkowski, P.G. 1977. The adenylate energy charge in marine phytoplankton: The effect of temperature on the physiological state of *Skeletonema costatum* (Grev.) Cleve. J. exp. mar. Biol. Ecol. 27: 37-45.
9. Falkowski, P.G. and T.G. Owens. 1978. The effects of light intensity on photosynthesis and dark respiration in six species of marine phytoplankton. Mar. Biol. 45: 289-295.
10. Owens, T.G., D.M. Riper, and P.G. Falkowski. 1978. Studies of delta-aminolevulinic acid dehydrase from *Skeletonema costatum*, a marine plankton diatom. Plant Physiol. 62: 516-521.
11. D.M. Riper, T.G. Owens, and P.G. Falkowski. 1979. Chlorophyll turnover in

Skeletonema costatum, a marine plankton diatom. Plant Physiol. 64: 49-54.
12. Falkowski, P.G., T.S. Hopkins, and J.J. Walsh. 1980. An analysis of factors affecting oxygen depletion in the New York Bight. J. Mar. Res. 38: 479-506.
13. Owens, T.G., P.G. Falkowski, and T.E. Whitledge. 1980. Diel periodicity of chlorophyll in marine phytoplankton. Mar. Biol. 59: 71-77.
14. Falkowski, P.G. and T.G. Owens. 1980. Light-shade adaptation: two strategies in marine phytoplankton. Plant Physiol. 66: 592-595.
15. Falkowski, P.G. and Z. Dubinsky. 1981. Light-shade adaptation of *Stylophora pistillata*, a hermatypic coral from the Gulf of Eilat. Nature 289: 172-174.
16. Falkowski, P.G. 1981. Light-shade adaptation and assimilation numbers. J. Plankton Res. 3: 203-216.
17. Falkowski, P.G. and C.D. Wirick. 1981. A simulation model of the effects of vertical mixing on primary productivity. Mar. Biol. 65: 69-75.
18. Falkowski, P.G., T.G. Owens, A.C. Ley, and D. Mauzerall. 1981. The effect of growth irradiance on the ratio of reaction centers in two species of marine phytoplankton. Plant Physiol. 68: 969-973.
19. Falkowski, P.G. and J. Sucher. 1981. Rapid, quantitative separation of chlorophylls and their degradation products by high-performance liquid chromatography. J. Chromatogr. 213: 349-351.
20. Falkowski, P.G. and T.G. Owens. 1982. A technique for estimating phytoplankton division rates using a DNA-binding fluorescent dye. Limnol. Oceanogr. 27: 776-782.
21. Owens, T.G. and P.G. Falkowski. 1982. Enzymatic degradation of chlorophyll *a* by marine phytoplankton *in vivo*. Phytochem. 21: 979-984.
22. Falkowski, P.G. 1983. Vertical mixing and light-shade adaptation: a comparative field study. J. Mar. Res. 41: 215-237.
23. Precali, R. and P.G. Falkowski. 1983. Incorporation of ^{14}[C]-glutamate into proteins and chlorophylls in *Dunaliella tertiolecta*, a marine chlorophyte. Biol. Plant. 25: 187-195.
24. Malone, T.C., P.G. Falkowski, T.S. Hopkins, G.T. Rowe, and T.E. Whitledge. 1983. Mesoscale response of diatom populations to a wind event in the plume of the Hudson River. Deep-Sea Res. 30: 149-170.
25. Falkowski, P.G., J. Vidal, T.S. Hopkins, G.T. Rowe, T.E. Whitledge, and W.G. Harrison. 1983. Summer nutrient dynamics of the Middle Atlantic Bight: primary production and utilization of phytoplankton carbon. J. Plankton Res. 5: 515-537.
26. Harrison, W.G., D. Douglas, P.G. Falkowski, G.T. Rowe, and J. Vidal. 1983. Summer nutrient dynamics of the Middle Atlantic Bight: nitrogen uptake and regeneration. J. Plankton Res. 5: 539-556.
27. Raps, S., K. Wyman, H.W. Siegelman, and P.G. Falkowski. 1983. Adaptation of the cyanobacterium, *Microcystis aeruginosa*, to light intensity. Plant Physiol. 72: 829-832.
28. Falkowski, P.G. 1984. Kinetics of light intensity adaptation in *Dunaliella tertiolecta*: a marine plankton chlorophyte. Photosynthetica 18: 62-68.
29. Malone, T.C., T.S. Hopkins, P.G. Falkowski, and T.E. Whitledge. 1983. Production and transport of phytoplankton biomass over the continental shelf of the New York Bight. Cont. Shelf Res. 1: 305-337.
30. Falkowski, P.G. 1984. Physiological responses of phytoplankton to natural light regimes.

J. Plankton Res. 6: 295-307.
31. Falkowski, P.G., K. Wyman, and D. Mauzerall. 1984. Effects of continuous background irradiance on xenon-flash-induced fluorescence yields in marine microalgae. Proc. Sixth Int'l. Photosynthesis Cong., Brussels 1: 163-166.
32. Muscatine, L., P.G. Falkowski, and Z. Dubinsky. 1983. Carbon budgets in symbiotic associations. In Proc. 2nd int. Coll. Endocytobiology, W. Schwemmler and H. Schenk, eds., de Gruyter and Co. Pub., p. 649-658.
33. Dubinsky, Z., P.G. Falkowski, L. Muscatine, and J.W. Porter. 1984. The absorption and utilization of radiant energy by light and shade-adapted colonies of the symbiotic coral *Stylophora pistillata*. Proc. Roy. Soc. Lond. B 222B: 203-214.
34. Muscatine, L., P.G. Falkowski, J.W. Porter, and Z. Dubinsky. Fate of photosynthetically fixed carbon in light and shade-adapted colonies of the symbiotic coral, *Stylophora pistillata*. Proc. Roy. Soc. Lond. B 222B: 181-202.
35. Porter, J.W., L Muscatine, Z. Dubinsky, and P.G. Falkowski. Primary production and photoadaptation in light and shade-adapted colonies of the symbiotic coral, *Stylophora pistillata*. Proc. Roy. Soc. Lond. B 222B: 161-180.
36. Falkowski, P.G., Z. Dubinsky, L. Muscatine, and J.W. Porter. 1984. Light and the bioenergetics of a symbiotic coral. Bioscience 34: 705-709.
37. Falkowski, P.G., Z. Dubinsky, and K. Wyman. 1985. Growth-irradiance relationships in phytoplankton. Limnol. Oceanogr. 30: 311-321.
38. Post, A., K. Wyman, Z. Dubinsky, and P.G. Falkowski. 1984. Kinetics of light intensity adaptation in a marine diatom. Mar. Biol. 83: 231-238.
39. Falkowski, P.G., Z. Dubinsky, and G. Santostefano. 1985. Light-enhanced dark respiration in phytoplankton. Verh. Internat. Verein. Limnol. 22: 2830-2833.
40. Falkowski, P.G., K. Wyman, A.C. Ley, and D. Mauzerall. 1986. Relationship of steady-state photosynthesis to fluorescence in eucaryotic algae. Biochim. Biophys. Acta 849: 183-192.
41. Dubinsky, Z., P.G. Falkowski, and K. Wyman. 1986. Light harvesting and utilization in phytoplankton. Plant Cell Physiol. 27: 1335-1349.
42. Post, A.F., Z. Dubinsky, K. Wyman, and P.G. Falkowski. 1985. Physiological responses to light intensity transitions in a marine plankton diatom. Mar. Ecol. Prog. Ser. 25: 141-149.
43. Falkowski, P.G. and D.A. Kiefer. 1985. Chlorophyll a fluorescence: Relationship to primary production and phytoplankton biomass. J. Plankton Res. 7: 715-731.
44. Park, Y., E.J. Carpenter, and P.G. Falkowski. 1986. Ammonium excretion and glutamic dehydrogenase activity of zooplankton in Great South Bay, New York. J. Plankton Res. 8: 489-503.
45. Falkowski, P.G., Y. Fujita, A.C. Ley, and D.C. Mauzerall. 1986. Evidence for cyclic electron flow around photosystem II in eucaryotic algae. Plant Physiol. 81: 310-312.
46. Falkowski, P.G., C.N. Flagg, G.T. Rowe, S.L. Smith, T.E. Whiteledge, and C.D. Wirick, 1988. The fate of a spring phytoplankton bloom: export or oxidation. Cont. Shelf. Res. 8: 457-484.
47. Sukenik, A., J. Bennett, and P.G. Falkowski. 1987. Light saturated photosynthesis: limitation by electron transport or carbon fixation? Biochim. Biophys. Acta. 891: 205-215.
48. Sukenik, A., J. Bennett, and P.G. Falkowski. 1988. Changes in the abundance of

individual LHC I and LHC II apoproteins with growth irradiance in the marine chlorophyte, *Dunaliella tertiolecta*. Biochim. Biophys. Acta 932: 206-215.

49. Mortain-Bertrand, A. and P.G. Falkowski. 1989. Mise en evidence d'une relation entre fluorescence et carotenoides: une possibilite d'ameliorer les modeles de production primaire. C.R. Acad. Sci. Paris 309: 13-18.
50. Rowe, G., R. Theroux, W. Phoel, H. Quinby, R. Wilke, D. Koschoveck, T. Whitledge, P.G. Falkowski, and C. Fray. 1988. Benthic carbon budgets for the continental shelf south of New England. Cont. Shelf Res. 8: 511-527.
51. Wyman, K.D., Z. Dubinsky, J.W. Porter, and P.G. Falkowski. 1987. Light absorption and utilization among hermatypic corals: A study in Jamaica, West Indies. Mar. Biol. 96: 283-292.
52. Rowe, G.T., S. Smith, P.G. Falkowski, and others. 1986. Do continental shelves export organic matter? Nature 324: 559-561.
53. Sukenik, A., P.G. Falkowski, and J. Bennett. 1987. The potential enhancement of photosynthetic energy conversion in algal mass culture. Biotech. Bioeng. 30: 970-977.
54. Berner, T., and others. 1986. The measurement of primary productivity in a high-rate oxidation pond (HROP). J. Plankton Res. 8: 659-672.
55. Sukenik, A., K.D. Wyman, J. Bennett, and P.G. Falkowski. A novel mechanism for regulating the excitation of Photosystem II in a green alga. Nature 327: 704-707.
56. Sukenik, A., J. Bennett, and P.G. Falkowski. 1989. Energy transfer of LHC II in *Dunaliella tertiolecta* is unusually sensitive to Triton X-100. Photosyn. Res. 21: 37-44.
57. Dubinsky, Z., P.G. Falkowski, A.F. Post, and U.M. van Hes. 1987. A system for measuring phytoplankton photosynthesis in a defined light field with an oxygen electrode. J. Plankton Res. 9: 607-612.
58. Zehr, J., P.G. Falkowski, and D. Capone. 1988. Coupling between ^{13}N ammonium uptake and incorporation in a marine diatom. Limnol. Oceanogr. 33: 518-527.
59. Falkowski, P.G., Z. Kolber, and Y. Fujita. 1988. Dynamics of electron flow around photosystem II during steady-state photosynthesis in eucaryotic algae. Biochim. Biophys. Acta 933: 432-443.
60. Kolber, Z., J. Zehr, and P.G. Falkowski. 1988. Effects of growth irradiance and nitrogen limitation on photosynthetic energy conversion in Photosystem II. Plant Physiol. 88: 923-929.
61. Kolber, Z., K.D. Wyman, and P.G. Falkowski. 1990. Natural variability in photosynthetic energy conversion efficiency: A field study in the Gulf of Maine. Limnol. Oceanogr. 35: 72-79.
62. Zehr, J., D.C. Capone, and P.G. Falkowski. Rapid incorporation of $^{13}NO_3$ by NH_4-limited phytoplankton. Mar. Ecol. Prog. Ser. 51: 237-251.
63. Muscatine, L., P.G. Falkowski, Z. Dubinsky, P.A. Cook, and L. McCloskey. 1989. The effect of external nutrient resources on the population dynamics of zooxanthellae in a reef coral. Proc. R. Soc. Lond. B236: 311-324.
64. Rahav, O., Z. Dubinsky, Y. Achituv, and P.G. Falkowski. 1989. Ammonium metabolism in the symbiotic coral, *Stylophora pistillata*. Proc. R. Soc. Lond. B236: 325-337.
65. Zehr, J. and P.G. Falkowski. 1988. Pathway of ammonium assimilation in a marine diatom determined with the radiotracer ^{13}N. J. Phycol. 24: 588-591.

66. Mortain-Bertrand, A. and P.G. Falkowski. 1990. Photoregulation of the light-harvesting chlorophyll complex associated with Photosystem II in *Dunaliella tertiolecta*. Evidence that LHCII apoproteins are stable without chlorophyll. Plant Physiol. 94: 304-311.
67. Berner, T., K. Wyman, and P.G. Falkowski. 1989. Photoadaptation and the "package" effect in *Dunaliella tertiolecta* (Chlorophyta). J. Phycol. 25: 70-78.
68. Herzig, R. and P.G. Falkowski. 1989. Nitrogen limitation in *Isochrysis galbana* (Haptophyceae). I. Photosynthetic energy conversion and growth efficiencies. J. Phycol. 25: 462-471.
69. Falkowski, P.G., A. Sukenik, and R. Herzig. 1989. Nitrogen limitation in *Isochrysis galbana* (Haptophyceae). II. Relative abundance of chloroplast proteins. J. Phycol. 25: 471-478.
70. LaRoche, J., J. Bennett, and P.G. Falkowski. 1990. Characterization of a cDNA encoding for a 28.5 kDa LHC II apoprotein from the unicellular marine chlorophyte *Dunaliella tertiolecta*. Gene 95: 165-171.
71. Falkowski, P.G. 1991. Species variability in the fractionation of ^{13}C and ^{12}C by marine phytoplankton. J. Plankton Res. 13: 21-28.
72. Wegner, H.C., R. Herzig, P.G. Falkowski, and D.H. Turpin. 1989. Respiratory losses in the light in a marine diatom: Measurements by short-term mass-spectrometry. Limnol. Oceanogr. 34: 1153-1161.
73. Sukenik, A., J. Bennett, A. Mortain-Bertrand, and P.G. Falkowski. 1990. Adaptation of the photosynthetic apparatus to irradiance in *Dunaliella tertiolecta* - A kinetic study. Plant Physiol. 92: 891-898.
74. Dubinsky, Z., N. Stambler, M. Ben-Zion, L.R. McCloskey, L. Muscatine, and P.G. Falkowski. 1990. Effects of external nutrient sources on the optical properties and photosynthetic efficiency of *Stylophora pistillata*. Proc. Roy. Soc. B 239: 231-246.
75. Falkowski, P.G. and J. LaRoche. 1990. Molecular biology in studies of ocean processes. Int. Rev. Cytol. 128, 261-303.
76. Ohki, K., J. Zehr, P.G. Falkowski, and Y. Fujita. 1991. Regulation of nitrogenase in the marine, non-heterogeneous cyanobacterium *Trichodesmium* sp. Arch. Microbiol. 156: 335-337.
77. Falkowski, P.G. and J. LaRoche. 1991. Acclimation to spectral irradiance in algae. J. Phycol. 27(1): 8-14.
78. Falkowski, P.G., D. Ziemann, Z. Kolber, and P.K. Bienfang. 1991. Role of eddy pumping in enhancing primary production. Nature 352: 55-58.
79. Sancetta, C., T. Villareal and P.G. Falkowski. 1991. Massive fluxes of Rhizosolenid diatoms: A common occurrence? Limnol. Oceanogr. 36: 1452-1457.
80. Greene, R., R. Geider, and P.G. Falkowski. 1991. Effect of iron limitation on photosynthesis in a marine diatom. Limnol. Oceanogr. 36: 1772-1782.
81. LaRoche, J., A. Mortain-Bertrand, and P.G. Falkowski. 1991. Light-intensity induced changes in cab mRNA and light-harvesting complex II apoprotein levels in the unicellular chlorophyte *Dunaliella tertiolecta*. Plant Physiol. 97: 147-153.
82. Sukenik, A., R.S. Levy, Y. Levy, P.G. Falkowski, and Z. Dubinsky. 1991. Optimizing algal biomass production in an outdoor pond: A simulation model. J. Appl. Phycol. 3: 191-201.

83. Falkowski, P.G., Y.-S. Kim, Z. Kolber, C. Wilson, C. Wirick, and R. Cess. 1992. Distinguishing between anthropogenic and natural factors affecting low-level cloud albedo over the North Atlantic Ocean. Science 256: 1311-1313.
84. Falkowski, P.G. and C. Wilson. 1992. Phytoplankton productivity in the North Pacific in relation to the absorption of anthropogenic CO_2. Nature 358: 741-743.
85. Greene, R.M., R.J. Geider, Z. Kolber, and P.G. Falkowski. 1992. Iron-induced changes in light harvesting and photochemical conversion processes in eucaryotic marine algae. Plant Physiol. 100: 565-575.
86. Falkowski, P.G. 1992. Biotechnology and global climate change. Current Opinion in Biotechnology 3: 286-290.
87. Falkowski, P.G., P. Biscaye, and C. Sancetta. 1994. The lateral flux of biogenic particles from the Eastern North American continental margin to the North Atlantic Ocean. Cont. Shelf Res. 41: 583-601.
88. Falkowski, P.G., Z. Dubinsky, L. Muscatine, and L. McCloskey. 1993. Population control in symbiotic corals. BioScience 43: 606-611.
89. Falkowski, P.G. and Z. Kolber. 1993. Estimating phytoplankton photosynthesis by active fluorescence. In *Ocean Productivity: From Molecules to Space*, S. Maestrini and W. Li, eds., Int. Cons. Explor. Mer. 197: 92-103.
90. LaRoche, J., R. Geider, and P.G. Falkowski. 1993. Molecular biology in studies of oceanic primary production. In *Ocean Productivity: From Molecules to Space*, S. Maestrini and W. Li, eds., Int. Cons. Explor. Mer. 197: 42-51.
91. Falkowski, P.G., R.M. Greene, and R.J. Geider. 1992. Physiological limitations on phytoplankton productivity in the ocean. Oceanography 5: 84-91.
92. Kolber, Z. and P.G. Falkowski. 1993. Using active fluorescence to derive phytoplankton photosynthesis *in situ*. Limnol. Oceanogr. 38: 1646-1665.
93. Kemp, P.F., P.G. Falkowski, C. Flagg, W. Phoel, S. Smith, D.W.R. Wallace, and C.D. Wirick. 1994. Modeling vertical oxygen and carbon flux during stratified spring and summer conditions on the continental shelf, Middle Atlantic Bight, eastern U.S.A. Deep-Sea Res. 41: 629-655.
94. Geider, R.J., R.M. Greene, Z. Kolber, H. MacIntyre, and P.G. Falkowski. 1993. Fluorescent assessment of the maximum quantum efficiency of photosynthesis in the western North Atlantic Ocean. Deep-Sea Res. 40: 1205-1224.
95. Grobbelaar, J.U., F. Schanz, Z. Dubinsky, M.M. Tilzer, T. Burger-Wiersma, M. Rijkeboer, J. Lemoalle, and P.G. Falkowski. 1992. Photosynthetic characteristics of five high light and low light exposed microalgae as measured with ^{14}C-uptake and oxygen electrode techniques. Marine Microbial Food Webs 6(1): 3-19.
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Additional Publications

1. Falkowski, P.G. and S.O. Howe 1976. Preliminary report on the possible effects of the *Ceratium tripos* bloom in the New York Bight, March - July 1976. In *Anoxia on the `Middle Atlantic Shelf during the Summer of 1976*, J.H. Sharpe, ed., IDOE Tech. Rep.
2. Falkowski, P.G. 1978. Anion-activated adenosine triphosphatases. In *Handbook of Phycological Methods: Physiological and Biochemical Methods*, J.A. Hellebust and J.S. Cragie, eds., pp. 255-261, Cambridge University Press.
3. Falkowski, P.G. 1978. Nitrogen assimilation in lower plants. In *Nitrogen in the Environment*, Vol. 2, D.R. Nielsen and J.G. Macdonald, ed., pp. 143-155, Academic Press, New York.
4. T.C. Malone, W.E. Esaias, and P.G. Falkowski. 1980. The effects of *Ceratium tripos* blooms on oxygen depletion in the New York Bight. NOAA Professional Paper 11, pp. 193-218.
5. Falkowski, P.G. 1980. Light-shade adaptation in marine phytoplankton. In *Primary Productivity in the Sea*, pp. 99-119, Plenum Press, New York.

6. Falkowski, P.G., Editor. 1980. *Primary Productivity in the Sea*. Plenum Press, New York, 522 pp.
7. Boynton, W.R., C.A. Hall, P.G. Falkowski, C.W. Keefe, and W.M. Kemp. 1983. Phytoplankton productivity in aquatic ecosystems. In *Encyclopedia Plant Physiol.*, Vol. II B, Plant Water Relationships, pp. 305-327, Springer-Verlag.
8. Falkowski, P.G. Enzymology of nitrogen assimilation. 1983. In *Nitrogen in the Marine Environment*, E.J. Carpenter and D. Capone, eds., pp. 839-868, Academic Press, New York.
9. Dubinsky, Z., P.G. Falkowski, and D. Scharf. 1985. Aspects of adaptation of hermatypic corals and their endosymbiotic zooxanthellae to light. In *Biology of the Red Sea*, J. Costlow, ed., AIBS.
10. Falkowski, P.G., P. Jokiel, and R. Kinzie. 1990. Irradiance and corals. In *Coral Reefs*, Vol. 7 in Ecosystems of the World, Z. Dubinsky, ed., pp. 89-107, Elsevier, Amsterdam.
11. Falkowski, P.G. 1988. Ocean productivity from space (News and Views). Nature 335: 205.
12. Falkowski, P.G., P. Jokiel, and R. Kinzie. 1990. Irradiance and corals. In *Coral Reefs*, Vol. 7 in Ecosystems of the World, Z. Dubinsky, ed., pp. 89-107, Elsevier, Amsterdam.
13. Falkowski, P.G. and L.M. Kirschner. 1990. Ocean biology and global climate. The World & I, pp. 284-291.
14. LaRoche, J. A. Mortain-Bertrand, J. Bennett, and P.G. Falkowski. 1990. Molecular regulation of LHC II apoproteins during phaotoadaptation in *Dunaliella tertiolecta*. Proc. VII Intern. Photosyn. Congr. 4: 357-360.
15. Falkowski, P.G. and Z. Kolber. 1990. Phytoplankton photosynthesis in the Atlantic Ocean as measured from a submersible pump and probe fluorometer *in situ*. In *Current Research in Photosynthesis IV*, M. Baltscheffsky, Editor, pp. 923-926, Kluwer, London.
16. Falkowski, P.G. and A. Woodhead (eds). 1992. *Primary Productivity and Biogeochemical Cycles in the Sea*. Plenum Press, New York. 550 pp.
17. Falkowski, P.G. 1992. A carbon budget for the northeast continental shelf ecosystem: Results of the Shelf Edge Exchange Process Studies. In *Food Chains, Yields, Models, and Management of Large Marine Ecosystems*, K. Sherman, L.M. Alexander, and B.D. Gold, Eds., pp. 35-48. Westview Press, Boulder, San Francisco, Oxford.
18. Falkowski, P.G., S. Demers, and L. Legendre. 1991. Concluding remarks: Promises and limitations of individual cell and particle analysis. NATO ASI Series, Vol. G27, Particle Analysis in Oceanography, S. Demers, Editor, Springer-Verlag, Berlin, Heidelberg, pp. 405-408.
19. Falkowski, P.G. 1992. Molecular ecology of phytoplankton photosynthesis. pp. 47-67 in *Primary Productivity and Biogeochemical Cycles in the Sea*, P. G. Falkowski and A.D. Woodhead, eds. Plenum Press, New York.
20. Falkowski, P.G. 1993. Phytoplankton photosynthesis in the ocean in relation to the global carbon cycle. *Proc. IXth Int. Photosynthesis Congress*, N. Murata, ed. Kluewer, Amsterdam.
21. Falkowski, P.G., R. Greene and Z. Kolber. 1994. Light utilization and photoinhibition of photosynthesis in marine phytoplankton. In. *Photoinhibition of Photosynthesis: From molecular mechanisms to the field.* N. R. Baker and J. R. Bowyer, eds. Bios Scientific, Oxford. pp 407-432.
22. Falkowski, P.G. 1995. Towards Understanding the Molecular Ecology of Phytoplankton Photosynthesis. In *Molecular Ecology of Aquatic Microbes*, NATO ASI Series, Ed. I. Joint,

Springer-Verlag, Heidelberg, pp. 17-38.
23. Berges, J.A., D.O. Charlebois, D.C. Mauzerall, and P.G. Falkowski. 1996. Effects of nitrogen deprivation on photochemical efficiency in three species of microalgae: A comparison of fluorescence and photoacoustic techniques. In *Proc. Xth International Photosyn. Cong.,* P. Mathis, ed., Montpellier.
24. Falkowski, P.G., M. Behrenfeld, and Z. Kolber. 1996. Variations in photochemical energy conversion efficiency in oceanic phytoplankton: Scaling from reaction centers to the global ocean. In *Proc. Xth International Photosyn. Cong.*, P. Mathis, ed., Montpellier.
25. La Roche, J., F. Partensky, and P.G. Falkowski. 1996. The major light-harvesting chlorophyll-binding protein of *Prochlorococcus marinus* is similar to CP43', a chlorophyll protein induced by non-depletion in cyanobacteria. In *Proc. Xth International Photosyn. Cong.*, P. Mathis, ed., Montpellier.
26. Polivka, T., J. Psencik, P. Kroh, D. Engst, O. Prasil, P.G. Falkowski, and J. Hala. 1996. Hole-burning study of Fe-limited and Fe-repleted cells of *Dunaliella tertiolecta*. In *Proc. Xth International Photosyn. Cong.*, P. Mathis, ed., Montpellier.
27. Prasil, O., Z. Kolber, J.A. Berry, and P.G. Falkowski. 1996. Plastoquinone redox regulation and feedback on the donor side of Photosystem II *in vivo*. In *Proc. Xth International Photosyn. Cong.*, P. Mathis, ed., Montpellier.
28. Falkowski, P.G. and J. Raven. 1997. *Aquatic Photosynthesis*, Blackwell Scientific, Oxford (375pp).
29. Durnford, D., O. Prasil, J-M Escoubas and P. G. Falkowski. 1998. Assessing the potential for chloroplast redox regulation of nuclear gene expression. Method. Enzymol. 297: 220-234.
30. Falkowski, P.G. 2001. Biogeochemical Cycles. *In* Encyclopedia of Biodiversity. Academic Press, New York. pp 437-453.
31. Chisholm, S.W., P.G. Falkowski, and J.J. Cullen. 2001. Dis-crediting ocean fertilization. Science 294: 309-310.
32. Dickey, T and PG Falkowski. 2002 Solar Energy and Its Biological-Physical Interactions *In* The Sea, ed. Allan Robinson. John Wiley & Sons, New York. Pp 401-440.
33. Falkowski, P.G. 2002. On the evolution of the carbon cycle. *In* Phytoplankton Productivity: Carbon assimilation in marine and freshwater ecosystems. P. J. LeB. Williams, D.N. Thomas and C.S. Reynolds (eds). Blackwell. Pp. 318-349.
34. Falkowski, P. G. and Y.B. Chen 2003. Photoacclimation of light harvesting systems in eucaryotic algae. In Light Harvesting Systems., ed. B. Green and W. Parsons. Kluwer, Amsterdam.
35. Falkowski, P.G., R. Geider, and J.A. Raven. 2004. The role of aquatic photosynthesis in solar energy conversion: A geoevolutionary perspective. In. *Solar Energy Conversion* [Eds.] M. Archer and J Barber. Imperial College Press, London.
36. Laws, E.A. and others. 2002. Photosynthesis and primary productivity in marine ecosystems: Practical aspects and application of techniques. JGOFS Special Report No. Bergen, Norway. 93 pp.
37. Falkowski P.G., E.A. Laws, R.T. Barber, and J.W. Murray. 2003. Phytoplankton and their role in Primary, New, and Export Production. (Chapter 4) In *Ocean Biogeochemistry: The Role of the Ocean Carbon Cycle in Global Change*. [Ed] MJR Fasham. Global Change –

The IGBP Series.
38. Falkowski, P.G. 2002. The Ocean's Invisible Forest. Scientific American 287: 38-45.
39. Falkowski, P.G. 2003. The biogeochemistry of primary productivity in the sea. In *Treatise of Geochemistry.* [Ed] W.H. Schlesinger. Elsevier, pp185-213.
40. Falkowski PG, Koblížek M, Gorbunov M and Kolber Z (2004) Development and Application of fluorescence techniques in Marine Ecosystems. Chlorophyll fluorescence: A signature of Photosynthesis. Eds. Papageorgiou GC and Govindjee. Series "*Advances in Photosynthesis*" Vol. 19th, Series editor: Govindjee, Springer. pp. 757-778.
41. Falkowski, P.G. and D. Tchernov. 2003. Human footprint on the ecological landscape. In. *Earth System Analysis for Sustainabilty*, ed, J. Schellnhuber. Springer-Verlag, Berlin.
42. Falkowski, P. G., O. Schofield, M. Katz, Bas van Schootbrugge and A. H. Knoll. Why is the land green and the ocean red? 2004. In. *Coccolithophorids*. Ed. H. Thierstein and J. Young. Springer-Verlag. Berlin. pp. 429-453.
43. Falkowski, P.G. and C. de Vargas. 2004. Shotgun sequencing in the sea: a blast from the past? Science 304: 58-60.
44. Gorbunov, M. Y. and P. G. Falkowski (2004). Fluorescence Induction and Relaxation (FIRe) Technique and Instrumentation for Monitoring Photosynthetic Processes and Primary Production in Aquatic Ecosystems. "Photosynthesis": Fundamental Aspects to Global Perspectives, Montreal, Allen Press.
45. Falkowski, P.G. 2006. Tracing oxygen's imprint on Earth's metabolic evolution. Science 311: 1724-1725.
46. Falkowski, P.G. and J.A. Raven. 2007. *Aquatic Photosynthesis* (2nd edition). Princeton University Press. Princeton, 484 pp.
47. Falkowski, P.G. and A.H. Knoll (eds). 2007. The Evolution of Aquatic Photoautotrophs. Academic Press. New York, 456 pp.
48. Falkowski, P.G. and A.H. Knoll. 2007. An introduction to primary producers in the sea: who they are, what they do, and when they evolved. *In* The Evolution of Aquatic Photoautotrophs, P.G. Falkowski and A.H. Knoll (eds). Academic Press. New York, 456 pp.
49. Katz, M.E., K. Fennel, P.G. Falkowski. 2007. Geochemical and biological consequences of phytoplankton evolution. *In* The Evolution of Aquatic Photoautotrophs, P.G. Falkowski and A.H. Knoll (eds). Academic Press. New York, 456 pp.
50. Buesseler, K.O., S.C. Doney, D.M. Karl, P.W. Boyd, K. Caldeira, F. Chai, K.H. Coale, H.J.W. de Baar, P.G. Falkowski, K.S. Johnson, R.S. Lampitt, A.F. Michaels, S.W.A. Naqvi, V. Smetacek, S. Takeda, A.J. Watson. 2008. Environemnt: Ocean Iron Fertilization--Moving Forward in a Sea of Uncertainty. Science 319: 162, doi: 10.1126/science.1154305 (in Policy Forum).
51. Berman-Frank, I, Y.-B. Chen, Y. Gao, K. Fennel, M. Follows, A.J. Milligan and P.G. Falkowski. 2008. Global change and the nitrogen cycle. *In* Nitrogen in the Marine Environment (2nd edition). D.G. Capone, D.A. Bronk, M.R. Mulholland and E.J. Carpenter (eds). Elsevier, Inc. Pp.
52. Falkowski, P. 2009. The marine carbon cycle. *In* The Princeton Guide to Ecology. S. Levin (ed). Princeton University Press. Princeton, Pp. 358-366.
53. Falkowski, P. 2009. The once and future ocean. Oceanography 22: 246-251.
54. Falkowski PG and RM Goodman. 2009. Future Energy Institutes. Science 117:655.

55. Dubinsky, Z. and P.G. Falkowski. 2011. Light as a Source of Information and Energy in Zooxanthellate Corals. *In* Coral Reefs: An Ecosystem in Transition. Dubinsky, Zvy; Stambler, Noga (Eds.) Springer. New York, pp. 107-118.
56. Eisenstein, M. and P. Falkowski. 2012. Q&A Paul Falkowski A slow-motion crisis. Nature 483(7387): S21-S21.
57. Lutz, R. A. and P. G. Falkowski. 2012. A Dive to Challenger Deep. Science 336(6079): 301-302.
58. Falkowski, P.G., Algeo, T., Codispoti, L., Deutsch, C., Emerson, S., Hales, B., Huey, R. B., Jenkins, W. J., Kump, L. R., Levin, L. A., Lyons, T. W., Nelson, N. B., Schofield, O., Summons, R., Talley, L. D., Thomas, E., Whitney, F., Pilcherm C. B. 2011. Ocean Deoxygenation: Past, Present, and Future. EOS, Transactions American Geophysical Union. 92(46): 409-411.
59. Falkowski, P.G. 2012. Le mouvement vital des oceans. In L'Homme et La Mer. Ed. Y. Arthus-Bertrand et Brian Skerry (in French). Foundation GoodPlanet. Paris (pp 48-55).
60. Falkowski, P. G., & Freeman, K. H. (Eds.) 2014. Volume 12 Organic Geochemistry In H. D. Holland & K. K. Turekian (Eds.), Treatise on Geochemistry (Second Edition) (pp. xxiii-xxiv). Oxford: Elsevier.
61. Falkowski, P.G., 2015. Life's Engines: How Microbes Made Earth Habitable. Princeton University Press.
62. Wright, S.A., Sherwood Lollar, B., Atreya, S., Boss, A.P., Falkowski, P., Farmer, J.D., Guyon, O., Joyce, G.F., Kasting, J.F., Meadows, V. and Neches, P.M., 2019, January. Astrobiology Science Strategy for the Search for Life in the Universe. In American Astronomical Society Meeting Abstracts# 233 (Vol. 233).
63. Falkowski, P.G., 2019. 2. A Carbon Budget for the Northeast Continental Shelf Ecosystem: Results of the Shelf Edge Exchange Process Studies. Food Chains, Yields, Models, and Management of Large Marine Ecosoystems.
64. Hazen, R.M., Bromberg, Y., Downs, R.T., Eleish, A., Falkowski, P.G., Fox, P., Giovannelli, D., Hummer, D.R., Hystad, G., Golden, J.J. and Knoll, A.H., 2019. Deep Carbon through Deep Time: Data-Driven Insights in Whole Earth Carbon.

Other Publications

1. Falkowski, PG. 2003. When politics trumps science. New York Times 21 June.
2. Falkowski, PG. 2001. A climate pact without America. New York Times 25 July.
3. Falkowski, PG. 2000. The environment, and our votes. New York Times 31 August.
4. Falkowski, PG. 2007. Secret life of plants. (book review) Nature 447: 778).
5. Falkowski, PG. 2008. Find our energy expertise. New York Times 13 July.
6. Falkowski, PG. 2015. Taking the Oxygen Out of the Room. Huffington Post Science 20 August.
7. Falkowski, PG. 2015. Two Solutions That Cut Down on Fossil Fuels. Huffington Post Science 27 August.
8. Ravindran, S., 2022. Profile of Paul G. Falkowski. Proceedings of the National Academy of Sciences, 119(31), p.e2209110119. https://doi.org/10.1073/pnas.2209110119

Radio, Television, Podcasts

NPR radio- Leonard Lopate Show, NPR news with Richard Harris, NHK television, National Geographic Television, NJTV News.

Blue Dot Podcast - 165: The Environmental Science Version of The Nobel Prize: Tyler Laureates

Invited Lectures and Meetings

2006 Louisiana State University, School of the Coast and Environment
Central Caribbean Marine Institute for Educational Fundraising, London
AAAS - Invited speaker
Lehigh University
PSA Meeting - Juneau, Alaska
ASLO/AG Meeting - Honolulu, HI
Peking University, Beijing
Center for Quaternary Research, Xian
University of Xiamen
Chinese Academy of Sciences Eighth International Conference on Development of Drylands Feb 25-28, 2006 - Invited speaker

2007 Natural Science Foundation - NRC Committee
Conceptual Basis of Biology Meetings - Seattle, Washington
European Phycological Congress - Invited speaker, Oviedo, Spain
International Photosynthesis Congress - Invited speaker, Glasgow, Scotland
The Royal Society - London, UK
Jacques Monod Conferences - Roscoff, France
NASA Science Update Panel SeaWiFS Anniversary
AQUAFLUO Conference - Invited speaker, Prague, Czech Republic

2008 Sagan Lecture - AGU
Plenary Lecture Ocean Sciences
University of Tokyo, Japan
University of Nagoya, Japan
University of Kyoto, Japan
University of Paris, France
St. Andrews University, UK
University of Dundee, UK

2009 Revelle Lecture - Washington DC
Yale University
Scripps Institute of Oceanography
Marine Biological Laboratory

Lamont Doherty Earth Observatory
CNRS - Roscoff, France
GRC - Marine Microbial Ecology, Italy
SGM Spring Conference - EICC, Edinburgh, UK

2010 Ecology Prize Lecture, Germany
University of Pennsylvania
CNRS - Paris
Princeton University
NASA Ames Conference
Canadian Society for Ecology and Evolution Conference – Quebec, Canada

2011 GRC - Metals in Biology
Harvard University
Massachusetts Institute of Technology
Keystone Symposia, Singapore, China
International Conference on Science – STHESCA, University of Krakow, Poland
Brazilian Congress of Marine Biology, Natal, Brazil
Aharon Katzir-Katchalski 30th Annual Lecture - Weizmann Institute of Science, Israel

2012 Wiese Lecture - University of Southern Alabama
Royal Society, London, UK
Chinese Academy of Sciences, Beijing, China
USP Conference - University of Sao Paulo, Brazil

2013 GRC - Geobiology, University of Southern California
City College of New York
Santa Fee Institute
University of Rhode Island
Cambridge University, Clare College, Cambridge, UK
Oxford University, Oxford, UK
European Science Foundation
Warsaw Technical University
University College of London
Wildlife Conservation Society
Algae Biomass Summit
Schmidt Ocean Research Symposium

2014 Institut de Ciencies del Mar (ICM), Barcelona, Spain
Comparative genomic approaches to understanding the architecture of metazoans, Coral Workshop, Rutgers University
University of Michigan
Kellogg Biological Station, Michigan State University

American Museum of Natural History
Monterey Bay Aquarium Research Institute (MBARI)
Earth Life Science Institute, 2nd ELSI International Symposium, Tokyo, Japan
Sorbonne University, Paris, France
CNRS - Roscoff, France
International Society for Applied Phycology (ISAP), Sydney, Australia
GRC – Biomineralization, Colby-Sawyer College
Massachusetts Institute of Technology
Carnegie Institute of Washington
Geological Society of America, Vancouver, Canada
Utrecht University, Amsterdam, Netherlands
American Geophysical Union, San Francisco

2015 Second Xiamen Symposium on Marine Environmental Sciences, China
Eastern Photosynthesis Conference, Woods Hole
University of Montana
McMaster University, Canada
CNRS - Roscoff, France
La Sorbonne, University Marie and Pierre Curie
CNRS - Ville de Franche-Sur-Mer Oceanographic Laboratory, France
Oceanographic Institute, Monaco
Carnegie Institute of Washington
UNESCO World Oceans Day, France
Positive Economy Forum, Le Havre, France
GSA Annual Meeting 2015, Baltimore

2016 Harvard University
AGU - ASM Colloquium, American Geophysical Union, Washington
Institute for Advanced Study, Princeton
Eastern Photosynthesis Conference, Woods Hole
Ocean and Evolution of Earths Biogeochemical Cycles Symposium, Rutgers
Tongji University, China
ASM Microbe 2016, Boston
Leon H. Charney School of Marine Sciences, University of Haifa, Israel
Global Co-Evolution of the Ocean Environment and its Ecology Workshop,
University of Bristol, England
17th International Congress on Photosynthesis Research, Maastricht, Netherlands
IMBC2016 Conference, Baltimore
Oceans World Meeting, Woods Hole
GSA, Denver
The Royal Society, London
Goddard Space Flight Center, Maryland
2016 Symposium on Biomaterials, Islen, NJ
Frontiers in Genomics, Nation Autonomous University of Mexico (UNAM),

Mexico City

2017 Antarctic Cruise, R/V ARSV Laurence M. Gould
QuEBS 2017, Workshop on Quantum Effects in Biological Systems, Jerusalem
NSF Geosciences AC-GEO, Washington D.C.
NASA Europa Lander Mission Concept Town Hall, Mesa, Arizona
The Rockefeller Foundation, The Bellagio Center, Writing Residency, Italy
Goldschmidt Conference 2017, Paris, France
BergamoScienza Festival 2017, Bergamo, Italy
C3 2017 Colloquium Aquafluo II, Sydney, Australia

2018 ELSI International Symposium 2018, Tokyo, Japan
GRC - Metals in Biology, Ventura, California
Harvard University – Dean's Lecture
American Museum of Natural History
Princeton Plasma Physics Laboratory
Columbia University
Flatiron Institute, Simons Foundation
University of California, Berkeley
University of California, Davis – Storer Lecture
Rutgers University
Old Dominion University – Dean's Lecture Series

2019 Cuban Society of Chemistry, Havana, Cuba
CIFAR International Assessment Panel, Toronto, Canada
World Science Festival Brisbane 2019 (WSFB), Brisbane, Australia
Korean Polar Research Institute, South Korea
University of Haifa, Leon Charney School of Marine Science, Israel
Hebrew University of Jerusalem, Israel
AbSciCon 2019, Seattle
Humboldt Symposium of Natural Sciences, Cayo Santa Clara, Cuba
Sagan Exoplanet Summer Workshop: Astrobiology for Astronomers, Caltech, Pasadena
Tara Oceans GO-SEE 2019, Barcelona, Spain
Princeton University
Rockefeller University, The Joshua Lederberg – John von Neumann Symposium, New York City

2020 Rutgers University – Physics Colloquium
IBENS 2020, France
Princeton Chemical Society
Stanford Carbon Management Workshop
Rutgers University – EPS Summer Science Series
Princeton Book Club

The International Forum on Advanced Environmental Sciences and Technology, University of Oklahoma

2021 American Chemical Society (ACS) – 68th Undergraduate Research Symposium
NASA Science Mission Directorate (SMD) Blue Ribbon High-Risk/High-Impact Review Panel
NASA CUBES-SAC Annual Meeting
NAS Earth Systems Affinity Group
SZN Scientific Council
RCSB Protein Data Bank AC Meeting
American Academy Colloquium on Microbes and Climate Change
Societa` Geologica Italiana Webinar Series 2021on Geobiology
PCE3 Steering Committee Meeting

2022 American Chemical Society (ACS) Meeting, Princeton
Stazione Zoologica Anton Dohrn (SZN) Scientific Council Meeting, Napoli, Italy
University of Science and Technology of China (USTC) Summer School in Planetary Sciences
Ramon Margalef Colloquium
European Algae Biomass Association, Rome, Italy
RCSB Protein Data Bank AC Meeting
PCE3 Steering Committee Meeting

2023 Geosciences Lecture Series, Princeton University
NAS Committee on Astrobiology and Planetary Science (CAPS)
Warren M. Zapol Symposium
University of Haifa's 10th Annual Conference in Marine Sciences: SEA AI

Students

D.M. Riper - SUNY at Stony Brook, M.Sc. 1979
J. Budin - SUNY at Stony Brook
J. Sucher - Southampton College
N. Noy - SUNY at Stony Brook
G. Santostefano - Southampton College
Y. Park - SUNY at Stony Brook, Ph.D. 1988
T. Arroll - Southampton College, B.Sc. 1990
M. Tedesco - SUNY at Stony Brook, M.Sc. 1991
D. Henry - SUNY at Stony Brook, M.Sc. 1991
A. Milligan - SUNY at Stony Brook, M.Sc. 1991
M. Olaizola - SUNY at Stony Brook, Ph.D. 1993
A. Subramaniam - SUNY at Stony Brook, Ph. D. 1995
J. Bauman - SUNY at Stony Brook, M.Sc. 1993
S. Tozzi - Rutgers University, M.Sc. 2002

Z. Finkel - Rutgers University, Ph. D. 2004
T. Shi - Rutgers University, Ph. D. 2006
M. Oliver - Rutgers University, Ph. D. 2006
F. Wolfe - Rutgers University, Ph. D. 2006
S. Whittaker - Rutgers University, M.Sc. 2008
G. Robbins - Rutgers University, M.Sc. 2010
C. Yan - Rutgers University, M.Sc. 2012
J. D. Kim - Rutgers University, Ph.D. 2013
D. Lyons - Rutgers University, M.Sc. 2014
J. Harrold - Rutgers University, Ph.D. 2014
J. Drake - Rutgers University, Ph.D. 2015
J. Kim - Rutgers University, Ph.D. 2016
B. Jelen - Rutgers University, Ph.D. 2018
A. Agarwal - Rutgers University, Ph.D. 2020
O. Farr - Rutgers University, M. Sc. 2021
Y. Sherman - Rutgers University, Ph.D. 2021
K. Yu Cheong - Rutgers University, Ph.D. 2021
W. Liu - Rutgers University, Ph.D. 2021
S. Newport - Rutgers University, M. Sc. 2021
R. Yi - Rutgers University, Ph.D. (in progress)
M. Chen - Rutgers University, Ph.D. (in progress)
H. Pupulewatte - Rutgers University, Ph.D. (in progress)
L. DiMattia - Rutgers University, Ph.D. (in progress)
J. Reilly - Rutgers University, Ph.D. (in progress)

Ph.D. Advisor for

Elizabeth Cosper - Columbia University, Ph D. 1980
Stephen Schaffer - New York University, Ph D. 1984
Ivor Elrifi - Queens University, Kingston, Ontario Ph. D. 1988
Richard Greene - SUNY at Stony Brook, Ph. D. 1994
Richard Reynolds - University of Southern California, Ph. D. 1993
Ming-Yi Sun - SUNY at Stony Brook, Ph. D. 1992
Zachary Johnson - Duke University, Ph. D. 2000
Jay Cullen - Rutgers University, Ph D. 2000
Joseph Grzymski - Rutgers University, Ph. D. 2001
Tricia Bergmann - Rutgers University, Ph.D. 2003
Nicolas Cassar - University of Hawaii, Ph. D. 2003
Matthew Oliver - Rutgers University, Ph.D. 2006
Yongchen Ji - Rutgers University, Ph.D. 2006
Alex Kahl - Rutgers University, Ph.D. 2008
J. Casey - University of Hawaii, Ph.D. 2016
J. Jiang - Rutgers University, Ph. D. (in progress)
O. Martin - Rutgers University, Ph.D. (in progress)

Visiting Scientists (Scientists who have worked in my laboratory)

Dr. Zvy Dubinsky, Bar Ilan University, Ramat Gan, Israel
Dr. Robert Precali, Ruder Boskovic Institute, Rovinj, Yugoslavia
Dr. Anton Post, Laboratory of Microbiology, University of Amsterdam, Netherlands
Dr. Robert Kinzie, Dept. of Zoology, University of Hawaii
Dr. Tamar Berner, Dept. of Life Sciences, Bar Ilan University, Israel
Dr. James Aiken, Inst. of Marine Environmental Research, Plymouth, Great Britain
Dr. Dale Robinson, University of Southern California
Dr. Leonard Muscatine, University of California, Los Angeles
Dr. Richard Geider, College of Marine Science, University of Delaware
Dr. Kaori Ohki, National Institute for Basic Biology, Ikazaki, Japan
Dr. Ondrej Prasil, Institute of Microbiology, Czech Academy of Sciences, Trebon, Czech Republic
Dr. Ian Davison, Dept. of Botany, University of Maine, Orono
Dr. Joseph Berry, Carnegie Institute for Plant Science, Stanford, California
Dr. Jean-Marc Ducruet, Dept. Of Biophysics, Saclay, France
Dr. Barry Osmond, Australian National University, Australia
Dr. Heather Stoll, Harvard
Dr. Mario Giordano, University of Ancona, Italy
Dr. Yong Park, Inha University, Korea
Dr. Maria Segovia, Queens University, Belfast, UK
Dr. Sang Hoon Lee, Oceanographic Research and Development Institute, Korea
Dr. Amos Israel, University of Haifa, Israel
Dr. Rosalind Rickaby, Oxford University, Great Britain
Dr. Jean Paul Gattuso, CNRS , France
Dr. Alan Townsend, University of Colorado
Dr. Joon-Baek Lee, Cheju National University, Korea
Dr. Moshe Ben-Tzion, Bar-Ilan University, Israel
Dr. Sinjae Yoo, Korean Ocean Research and Development Institute, Inchon, Korea
Dr. Frederico Pereira Brandini, Oceanographic Institute of São Paulo University, Brazil
Dr. Qiang Hao, State Key laboratory of Satellite Ocean Environment Dynamics (SOED), China
Dr. Nir Keren, Hebrew University of Jerusalem, Israel
Dr. Brian J. Stockman, Adelphi University

Post-doctoral Fellows

Dr. Assaf Sukenik (Senior Scientist, Israel Oceanographic & Limnological Research)
Dr. Zbigniew Kolber (Research Engineer, UCSC)
Dr. Jonathan Zehr (Professor of Marine Science, UC Santa Cruz)
Dr. Ronny Herzig (Professor, University of Haifa - deceased)

Dr. Julie LaRoche (Professor, Dalhousie University)
Dr. Anne Mortain-Bertrand (Professor, University of Bordeaux)
Dr. Paul Kemp (Professor, University of Hawaii)
Dr. Richard Greene (Research Scientist, EPA)
Dr. Jean-Michel Escoubas (Research Scientist, CNRS)
Dr. Ilya Vasil'ev (Senior Scientist, Lasertech -deceased)
Dr. John Berges (Professor, University of Wisconsin, Milwaukee)
Dr. Michael Behrenfeld (Research Scientist, Goddard Space Flight Center; Professor Oregon State)
Dr. Ondrej Prasil (Director of Research, Trebon, Czech Republic)
Dr. Juan Vergara (Professor, University of Cadiz, Spain)
Dr. Dion Durnford (Professor, University of New Brunswick, Canada)
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Dr. Daniel Grzebyk (Professor, University Montpellier)
Dr. Kay Bidle (Professor, Rutgers University)
Dr. Elena Litchman (Professor, Michigan State University)
Dr. Andrew Irwin (Professor, Dalhousie University)
Dr. Danny Tchernov (University of Haifa)
Dr. Bas van Schootbrugge (C2 Professor, Johann Wolfgang Goethe University, Frankfurt)
Dr. Trevor Bailey (Lecturer, University of Cardiff)
Dr. Thomas Bibby (Professor, Southampton Oceanography Centre)
Dr. Lin Jiang (Professor, Georgia Institute of Technology)
Dr. Allen Milligan (Associate Research Professor, Oregon State University)
Dr. Diana Nemergut (Associate Professor University of Colorado, deceased)
Dr. Huiyan Yang (Assistant Professor, University of Texas at El Paso)
Dr. Yael Helman (Professor, The Hebrew University of Jerusalem)
Dr. Pedro Cermeno (Senior Research Scientist, Instituto de Ciencias del Mar, Barcelona)
Dr. Tracy Quan (Professor, Oklahoma State University)
Dr. Assaf Vardi (Professor, Weizmann Institute of Science)
Dr. Matthew Johnson (Scientist, Woods Hole Oceanographic Institute)
Dr. Michele Vitadello (Professor, Medgar Evers College, NYC)
Dr. Miguel Frada (Senior Lecturer, Hebrew University)
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Dr. Stefan Senn (Post-doctoral Associate, University of Salzburg)
Dr. Tali Mass (Professor, Haifa University)
Dr. Jorge Dinamarca (Senior Scientist, Plantible Foods)
Dr. Benjamin Bailleul (Director of Research, IBPC Paris)

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Dr. Orly Levitan (Senior Project Manager, Hygieacare Inc.)
Dr. Stanilas Von Euw (Assistant Professor, University of Galway)
Dr. Elisha Moore (Research Chemist, USGS)
Dr. John Kim (Senior Scientist, Nokia Bell Labs)
Dr. Hagai Raanan (Research Scientist, Volcani Center)
Dr. Manjula Mummadisetti (Scientist, AVMBioMed)
Dr. Andrew Mutter (Protein Engineer, Parexel FSP)
Dr. Joshua Mancini (Innovation Scientist, Beyond Meat)
Dr. Jihua Hao (Assistant Professor, University of Science and Technology of China)
Dr. Bhanu Prakash Jagilinki (Postdoctoral Researcher, Washington State University)
Dr. Saroj Poudel (Computational Scientist, Biocatalysis)
Dr. Adrienne Hoarfrost (Assistant Professor, University of Georgia)
Dr. Kenneth McGuinness (Assistant Professor, Caldwell University)
Dr. Prabakaran Ram (Post-Doctoral Associate, Emory University)
Dr. Jyotirmoy Mondal (Post-Doctoral Associate, St. Jude Children's Research Hospital)
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Dr. Jennifer Timm (present post-doc)
Dr. Corday Selden (present post-doc)

Consultant

Algenol Biofuels
Reliance Industries
Satlantic
Sapphire Energy
Nokia

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