CURRICULUM VITAE 2016

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EDUCATION

1991-1995 Ph.D, Marine Microbial Ecology, University of Texas at Austin
1985-1988 M.S., Phytoplankton Ecology, the First Institute of Oceanography, SOA, China
1981-1985 B.S., Marine Biology, Ocean University of Qingdao, China

EXPERIENCE IN ACADEMIC RESEARCH

- 2016-present, Professor, Institute of Marine and Environmental Technology, University of Maryland Center for Environmental Science, Baltimore, Maryland
- 2010-2016, Associate Professor (tenured), Institute of Marine and Environmental Technology, University of Maryland Center for Environmental Science, Baltimore, Maryland
- 2007-2010, Associate Professor (tenured), Center of Marine Biotechnology, University of Maryland Biotechnology Institute, Baltimore, Maryland
- 2000-2007, Assistant Professor (tenure track), Center of Marine Biotechnology, University of Maryland Biotechnology Institute, Baltimore, Maryland
- 2003-2004, Assistant Professor (tenure track), Department of Biology, Hong Kong University of Science and Technology, Hong Kong
- 2006-2016, Adjunct Professor, Xiamen University, China
- 2002-2005, Adjunct Research Associate, Smithsonian Environmental Research Center
- 2000-present, MEES Faculty, University of Maryland at College Park
- 2000-present, Graduate School Faculty, University of Maryland at College Park
- 2010-present, Graduate Faculty, University of Maryland Center for Environmental Science
- 1997-2000, Research Assistant Professor, Department of Marine Sciences, University of Georgia, Athens, Georgia
- 1995-1997, Postdoctoral Research Associate, Department of Marine Sciences, University of Georgia
- 1991-1995, Graduate Research Assistant, Marine Science Institute, University of Texas at Austin
- 1989-1991, Research Scientist, Marine Science Institute, University of Texas at Austin
- 1988-1989, Research Scientist, The First Institute of Oceanography, SOA, China
- 1985-1988, Graduate Research Assistant, The First Institute of Oceanography, SOA

OTHER PROFESSIONAL ACTIVITIES

- 2015: Member, Local Organizing Committee, Algal Biomass Summit 2015.
- 2013-present: Member, Maryland Sea Grant Academic Advisory Committee
- 2013-2014: Member, Algal Turf Scrubbers Expert Panel, Chesapeake Bay Program

- 2013-present: Editorial Board, Science China – Earth Science
- 2010, Member, International Program Committee, the 9th International Marine Biotechnology Conference
- 2009-2010, Scientific Advisory Committee member, Sino-US Joint Laboratory for Biotechnology of Microalgae
- 2008-2012, Associate Member, Scientific Committee for Ocean Research – Microbial Carbon Pump in the Ocean.
- 2008-2010, Oversea Scientific Advisory Committee, Qingdao Institute of Bioenergy and Bioprocessing Technology, Chinese Science Academy
- 2006-2015, Editorial Board, for the BMC journal, Saline Systems (Aquatic Biosystems)
- 2005-2008, Associate Member, The Scientific Committee for Ocean Research – Viral Ecology
- 1996-Present, Member, The International Society of Microbial Ecology

AWARDS & HONORS

- 1989 NOAA Research Fellowship
- 1993 Duke University Summer Fellowship
- 1993-1995, Lund Scholarship, University of Texas at Austin
- 1995, Outstanding Ph.D dissertation, recognized by the President of University of Texas
- 2012-2013, HWK Fellowship from Hanse-Wissenschaftskolleg Institute for Advanced Study, Germany

PUBLICATIONS

A. Peer-reviewed articles (* Corresponding author)

1. Zhao Zhao, Michael Gonsior, Jenna Luek, Stephen Timko, Hope Ianiri, Norbert Hertkorn, Philippe Schmitt-Kopplin, Xiaoting Fang, Qinglu Zeng, Nianzhi Jiao, and **Feng Chen**. Picocyanobacteria and deep-ocean fluorescent dissolved organic matter share the same optical properties. Nature Communication, in press
2. David Paez-Espino, I. A. Chen, K. Palaniappan, A. Ratner, K. Chu, E. Szeto, M. Pillay, J.H. Huang, V. M. Marowitz, T. Nielsen, M. Huntemann, T. B. K. Reddy, G. A. Pavlopoulos, M. B. Sullivan, B. J. Campbell, **F. Chen**, K. McMahon, S. J. Hallam, V. Denef, R. Cavicchioli, S. M. Caffrey, W. R. Streit, J. Webster, K. M. Handley, G. H. Salekdeh, N. Tsesmetazis, J. C. Setubal, Ph. B. Pope, W-T. Liu, A. R. Rivers, N. N. Ivanova, and N. C. Kyrpides. 2016. IMG/VR: A comprehensive database of cultured and uncultured DNA viruses and retroviruses. Nucleic Acid Research. doi: 10.1093/nar/gkw1030
3. Zhan, Y.C, S.J. Huang, S. Voget, M. Simon, and **F. Chen***. 2016. A novel roseobacter phage possesses features of podoviruses, siphoviruses, prophages and gene transfer agents. Scientific Reports 6:30372, DOI: 10.1038/srep30372
4. Huang, S.J., S. Zhang, and N.Z. Jiao, and **F. Chen***. 2015. Comparative genomic and phylogenomic analyses of marine cyanopodoviruses. PLoS One. DOI: 10.1371/journal.pone.0142962
5. Chi, Y.X., **F. Chen**, and Y. Takiguchi. 2015. Effect of nitrogen on biomass and lipid production of a marine microalga *Nannochloropsis oceanica* IMET1. *Green Sustain. Chem.* 5: 101. DOI: 10.4236/gsc.2015.52013
6. Xu, Y., N. Jiao, **F. Chen***. 2015. Novel psychrotolerant picocyanobacteria isolated from Chesapeake Bay in the winter. *J. Phycol.* 51: 782-790. DOI: 10.1111/jpy.12318

7. Zhan, Y.C., A. Buchan, and **F. Chen***. 2015. Novel N4 bacteriophages prevail in the cold biosphere. *Appl. Environ. Microbiol.* doi:10.1128/AEM.00832-15.
8. Huang, S.J. S. Zhang, N.J. Jiao, and **F. Chen***. 2015. Marine cyanophages demonstrate biogeographic patterns throughout the global ocean. *Appl. Environ. Microbiol.* 81:441-452.
9. Huang, S., Y.Q. Liu, A. Hu, X.B. Liu, **F. Chen**, T.D. Yao, and N.Z. Jiao. 2014. Genetic diversity of picocyanobacteria in Tibetan lakes: assessing the endemic and universal distributions. *Appl. Environ. Microbiol.* 80:7640-7650
10. Zheng, Liu, F. Zhang, **F. Chen***. 2013. High throughput screening of CO_2-tolerating microalgae using GasPak bags. *Aquat. Biosys.* 9:23.
11. Marsan, D, K.E. Wommack, J. Ravel, **F. Chen*.** 2013. Draft genome sequence of *Synechococcus* sp. strain CB0101 isolated from the Chesapeake Bay estuary. *Genome Announ.* 2(1): e01111-13. doi: 10.1128/genomeA.01111-13
12. Wang, D.M, K. Ning, J.Li, D. Han, H. Wang, X.W. Zeng, X.Y. Jing, J.Q. Hu, X.Z. Chang, A.H. Wang, W. Wang, J. Jia, L. Wei, Y. Xin, Y.H. Qiao, R.R. Huang, J. Chen, B. Han, R.T. Hill, Y. Zohar, **F. Chen**, Q. Hu, and J. Xu. 2013. *Nannochloropsis* phylogenome reveals evolution of microalgal oleaginous traits. *PLoS Genetics* 10(1): e1004094.
13. Hong, Y.G., X.R. Xu, J.J. Kan, and **F. Chen***. 2014. Linking seasonal inorganic nitrogen shift to the dynamics of microbial communities in the Chesapeake Bay. *Appl. Microb. Biotech.* 98: 3219-3229. DOI 10.1007/s00253-013-5337-4
14. Dong, H.P, E. Williams, D.Z. Wang, Z.X. Xie, R.C. Hsia, A. Jenck, R. Halden, J. Li, **F. Chen**, A.R. Place. 2013. Responses of *Nannochloropsis oceanica* IMET1 to long-term nitrogen starvation and recovery. *Plant Physiol*. 162:1110-26. doi: 10.1104/pp.113.214320.
15. Ponsero, AJ, **F. Chen**, J.T. Lennon, S.W. Wilhelm. 2013. Complete genome sequence of cyanobacterial siphovirus KBS2A. *Genome Announ.* 1(4):e00472-13. doi:10.1128/ genomeA. 00472-13.
16. Hong, Y.G., Y.S. Wang, and **F. Chen***. 2013. Archaea dominate ammonia oxidizers in the Permian water ecosystem of Midland Basin. *Microbes Environ*. doi:10.1264/jsme2.ME13022
17. Wei, L., Y. Xin, D.M. Wang, X.Y. Jing, Q. Zhou, X.Q. Su, J. Jia, K. Ning, **F. Chen**, Q. Hu, J. Xu. 2013. *Nannochloropsis* plastid and mitochondrial phylogenomes reveal organelle diversification mechanism and intragenus phylotyping strategy in microalgae. *BMC Genomics* 14:534
18. Kling, H.J., H.D. Laughinghouse IV, J. Šmarda, J. Komárek , J. Acreman, K. Bruun, S. B. Watson, and **F. Chen**. 2012. A new red colonial *Pseudanabaena* (Cyanobacteria, Oscillatoriales) from North American large lakes 2012. *Fottea* 12(2): 327–339.
19. Piltula, J.S., W.D. Dyson, H.B. Bakht, I. Njoku, and **F. Chen**. 2012. Temporal distribution of genetically homogenous 'free-living' *Hematodinium* sp. in Delmarva coastal waters and sediments. *Aquatic Biosystems* 8:16 doi:10.1186/2046-9063-8-16
20. Wang, H., H.D. Laughinghous IV, M.A. Anderson, **F. Chen**, E. Williams, A.R. Place, O. Zmora, Y. Zohar, T.L. Zheng, R.T. Hill. 2011. A novel bacterial isolate from Permian ground water capable of aggregating potential biofuel-producing microalga *Nannochloropsis oceanica* IMET1. *Appl. Environ. Microbiol.* doi: 10.1128/AEM.06474-11.
21. Cai, W.W., H. Wang, Y. Tian, **F. Chen**, and T.L. Zheng. 2011. Influence of a bacteriophage on the population dynamics of toxic dinoflagellates by lysis of algicidal bacteria. *Appl. Environ. Microbiol.* 77:7837-40

22. Huang, S., K. Wang, N.Z. Jiao, and **F. Chen***. 2011. Genome sequences of siphoviruses infecting marine *Synechococcus* unveil a diverse cyanophage group and extensive phage–host genetic exchanges. *Environ. Microbiol.* DOI: 10.1111/j.1462-2920.2011.02667.x
23. Wang, K., K.E. Wommack, **F. Chen***. 2011. Inter-annual survey in the Chesapeake Bay I: Abundance and distribution of *Synechococcus* and cyanophages. *Appl. Environ. Microbiol.* doi:10.1128/AEM.00267-11.
24. Jiao, N., G.J. Herndl, D.A. Hansell, R. Benner, G. Kattner, S.W. Wilhelm, D.L. Kirchman, M.G. Weinbauer, T.W. Luo, **F. Chen**, and F. Azam. 2011. The microbial carbon pump and the oceanic recalcitrant dissolved organic matter pool. *Nat. Rev. Microbiol.* 9: 555 (July 2011) | doi:10.1038/nrmicro2386-c5.
25. Huang, S., S.W. Wilhelm, H.R. Harvey, K. Taylor, N.Z. Jiao, and **F. Chen***. 2011. Novel lineages of *Prochlorococcus* and *Synechococcus* in the global oceans. *ISME J.* doi:10.1038/ismej.2011.106.
26. Weinbauer, M., **F. Chen**, S. Wilhelm. 2011. Virus mediated redistribution and partitioning of carbon in the global oceans. pp. 54-55. In: Jiao et al. (*ed*). Microbial Carbon Pump in the Ocean. *Science*/AAAS, Washington, DC.
27. Huang, S., Y.Y. Zhang, **F. Chen**, N.Z. Jiao. 2011. Complete genome sequence of a marine roseophage provides evidence into the evolution of gene transfer agent in alphaproteobacteria. *Virology Journal* 8:124 (doi:10.1186/1743-422X-8-124).
28. Jiao, N., G.J. Herndl, D.A. Hansell, R. Benner, G. Kattner, S.W. Wilhelm, D.L. Kirchman, M.G. Weinbauer, T.W. Luo, **F. Chen**, and F. Azam. 2010. Microbial production of recalcitrant dissolved organic matter: long-term carbon storage in the global ocean. *Nature Rev. Microbiol*. 8: 593-599.
29. Cai, H.Y., K. Wang, S.J. Huang, N.Z. Jiao, and **F. Chen***. 2010. Shift of picocyanobacterial populations between winter and summer in Chesapeake Bay. *Appl. Environ. Microbiol.* 76: 2955–2960.
30. Huang, S.J., S. Wilhelm, N.Z. Jiao, and **F. Chen***. 2010. Ubiquitous cyanobacterial podoviruses in the global oceans unveiled through viral DNA polymerase gene sequences. *ISME J.* 4: 1243-1251.
31. Fu, Y., D.M. MacLeod, R.B. Rivkin, **F. Chen**, A. Buchan, and A.S. Lang. 2010. High diversity of Rhodobacterales in the sub-arctic North Atlantic Ocean and gene transfer agent protein expression in isolated strains. *Aquat. Microb. Ecol.* 59:283-293.
32. Zhao, Y.L., K. Wang, H-W. Ackermann, N. Z. Jiao, **F. Chen***. 2010. Searching for a "hidden" prophage in a marine bacterium. *Appl. Environ. Microbiol.* 76: 589–595
33. **Chen*, F**., K. Wang, S.J. Huang, H.Y. Cai, M.L. Zhao, N.Z. Jiao, and E. Wommack. 2009. Diverse and dynamic populations of cyanobacterial podoviruses in the Chesapeake Bay unveiled through DNA polymerase gene sequences. *Environ. Microbiol.* 11: 2884-2892.
34. Eissler, Y., K. Wang, **F. Chen**, E. Wommack, W. Coats. 2009. Ultrastructural characterization of the lytic cycle of an intra-nuclear virus infecting the diatom *Chaetoceros wighamii* (Bacillariophyceae) from Chesapeake Bay, USA. *J. Phycol.* 45:787-797.
35. Zhang, Y.Y., N. Jiao, D.R. Colquhoun, R.U. Halden, and **F. Chen***. 2009. Protein modifications related to phage resistance in a marine roseobacter. *Aquatic Microb. Ecol*. 55:203-207.
36. Sparks, W., J. Hough, T. A. Germer, **F. Chen**, S. DasSarma, et al. 2009. Detection of circular polarization in light scattered from photosynthetic microbes. *Proc. Natl. Acad. Sci.* 106:7816-7821.

37. Zhao, Y.L, K. Wang, N.Z, Jiao, and **F. Chen***. 2009. Genome sequences of two novel phages infecting marine roseobacters. *Environ. Microbiol.* 11:2055-64.
38. Zhao, Y., K. Wang, C. Budinoff, A. Buchan, A. Lang, N. Jiao, and **F. Chen***. 2009. Gene transfer agent (GTA) genes reveal diverse and dynamic *Roseobacter* and *Rhodobacter* populations in the Chesapeake Bay. *ISME J.* **3**: 364-373.
39. Sparks, W. B., J. H. Hough, L. Kolokolova, T. A. Germer, **F. Chen**, S. DasSarma, P. DasSarma, F. Robb, N. Manset, I.N. Reid, F.D. Macchetto, W. Martin. 2009. Circular polarization in scattered light as a possible biomarker. *J. Quant. Spectro. Radia. Trans.* 110: 1771-1779.
40. Zhao, M.R. **F. Chen**, and N.Z. Jiao. 2009. Niche portioning of flavobacterial proteorhodopsin in the sea. *Appl. Environ. Microbiol.* 75: 529-533.
41. Kan, J., S.E. Evans, **F. Chen**, M.T. Suzuki. 2008. Novel estuarine bacterioplankton in rRNA operon libraries from the Chesapeake Bay. *Aquat. Microb. Ecol.* 51:55–66.
42. Biers, E. J., K. Wang, C. Pennington, R. Belas, R., **F. Chen**, and M. A. Moran. 2008. Abundance and expression of gene transfer agent (GTA) genes in marine bacterioplankton. *Appl. Environ. Microbiol.* 74:2933-2939.
43. Wang, K. and **F. Chen***. 2008. Prevalence of highly host-specific cyanophages in the estuarine environment. *Environ. Microbiol.* 10:300-312 (also cover page).
44. Mohamed, N.M., E. Cicirelli, J. Kan, F. **Chen, F.**, C. Fuqua, and R.T. Hill. 2008. Diversity and quorum sensing signal production of Proteobacteria associated with marine sponges. *Environ. Microbiol.* 10:75-86.
45. Kan, J., M. Suzuki, K. Wang, S.E. Evans, and **F. Chen***. 2007. High temporal but low spatial heterogeneity of bacterioplankton in the Chesapeake Bay. *Appl. Environ. Microbiol.* 73:6776-6789.
46. Jiao, N.Z., Zhang, Y., Zeng, Y.H., Wang, P.X., Liu, R., Tang, X.D., **Chen, F**., and Li, Q. 2007. Deviation in abundance and diversity of aerobic anoxygenic phototrophic bacteria in the ocean. *Environ. Microbiol.* 9:3091-3099.
47. Reid, I. N., W. B. Sparks, S. Lubow, M. McGrath, M. Livio, J. Valenti, K.R. Sowers, H.D. Shukla, S. MacAuley, T. Miller, R. Suvanasuthi, R. Belas, A. Colman, F.T. Robb, P. DasSarma, J.A. Müller, J.A. Coker, R. Cavicchioli, **F. Chen**, S. DasSarma. 2006. Terrestrial models for extraterrestrial life: methanogens and halophiles at Martian temperatures. *Int. J. Astrobiol.* 00 (0): 1–9.
48. **Chen*, F**., K. Wang, J. Stewart, R. Belas. 2006. Induction of multiple prophages from a marine bacterium: A genomic approach. *Appl. Environ. Microbiol.* 72:4995-5001.
49. Kan, J., B. Crump, K. Wang, and **F. Chen***. 2006. Bacterioplankton community in Chesapeake Bay: Predictable or random assemblages. *Limnol. Oceanogr.* 51:2157-2169.
50. **Chen*, F**., K. Wang, J, Kan, and M. Suzuki, E. Wommack. 2006. Diverse and unique picocyanobacteria found in the Chesapeake Bay. *Appl. Environ. Microbiol.* 72:2239-2243.
51. Kan, J., K. Wang, and **F. Chen***. 2006. Temporal variation and detection limit of an estuarine bacterioplankton community analyzed by denaturing gradient gel electrophoresis (DGGE). *Aquat. Microb. Ecol.* 42:7-18.
52. Kan, J., T. E. Hanson, J. M. Ginter, K. Wang, **F. Chen***. 2005. Metaproteomic analysis of Chesapeake Bay microbial communities. *Saline Systems* 1:7.
53. Bettarel, Y., J. Kan, K. Wang, S. Cooney, K. Williamson, **F. Chen**, E. Wommack, W. Coats. 2005. Isolation and characterisation of a small nuclear inclusion virus infecting the diatom *Chaetoceros* c.f. *gracilis*. *Aquat. Microbial. Ecol.* 40:103-114.

54. Lohr, J. E., **F. Chen**, and R. T. Hill. 2005. Genomic analysis of bacteriophage JL001: Insights into interaction with a sponge-associated alpha-proteobacterium. *Appl. Environ. Microbiol.* 71: 1598-1609.
55. **Chen*, F**., K. Wang, J. Kan, D.S. Bachoon, J. Lu, S. Lau, and L. Campbell. 2004. Phylogenetic diversity of *Synechococcus* in the Chesapeake Bay revealed by ribulose-1,5-bisphosphate carboxylase-oxygenase (RuBisCO) large subunit gene (rbcL) sequences. *Aquat. Microb. Ecol.* 36:153-164.
56. Kan, J. and **F. Chen***. 2004. Co-monitoring bacterial and dinoflagellates communities by denaturing gradient gel electrophoresis (DGGE) and SSU rDNA sequencing during a dinoflagellates bloom. *Acta Oceanologia Sinica.* 23 (3):483-492.
57. Wang, K. and **F. Chen***. 2004. Genetic diversity and population dynamics of cyanophage communities in the Chesapeake Bay. *Aquat. Microb. Ecol.* 34:105-116, 2004.
58. **Chen*, F.** and Lu, J. R. 2002. Genomic sequence and evolution of marine cyanophage P60: a new insight on lytic and lysogenic phages. *Appl. Environ. Microbiol.* 68:2589-2594.
59. Zhong, Y., **F. Chen***, J. R. Lu, L. Poorvin, S. Wilhelm, R. Hodson. 2002. Phylogenetic diversity of marine cyanophage isolates and natural virus communities as revealed by sequences of viral capsid assembly protein gene g20. *Appl. Environ. Microbiol.* 68:1576-1584.
60. Lau, S. C. K., K. K. W. Mak, **F. Chen** and P. Y. Qian. 2002. Bioactivity of bacterial strains isolated from marine biofilms in Hong Kong waters for the induction of larval settlement in the marine polychaete *Hydroides elegans. Mar. Ecol. Prog. Ser.* 226:301-310.
61. Bachoon, D., **F. Chen**, and R. E. Hodson. 2001. RNA recovery and detection of mRNA by RT-PCR from preserved prokaryotic samples. *FEMS Microbiol. Lett.* 201:127-132.
62. Lu, J.R., **F. Chen*** and R. E. Hodson. 2001. Distribution, isolation, host specificity and diversity of marine cyanophages infecting *Synechococcus* spp. in coastal estuary. *Appl. Environ. Microbiol.* 67:3285-3290.
63. **Chen*, F.**, J. R. Lu, B. Binder, Y.C. Liu, and R. E. Hodson. 2001. Application of digital image analysis and flow cytometry to enumerate marine viruses stained with SYBR Gold. *Appl. Environ. Microbiol.* 67:539-545.
64. **Chen*, F**., B. Binder, R. E. Hodson. 2000. Flow cytometric detection of specific gene expression in prokaryotic cells using *in situ* RT-PCR. *FEMS Microbiol. Lett.* 184:291-295.
65. **Chen*, F**., W. A. Dustman and R. E. Hodson. 1999. Detection of toluene dioxygenase gene and gene expression in *Pseudomonas putida* F1 in a toluene exposed seawater using *in situ* PCR and hybridization. *Hydrobiologia* 401:131-138.
66. **Chen*, F**., J. M. Gonzalez, W. Dustman, M. Moran and R. Hodson. 1997. *In situ* reverse transcription: a new molecular approach to study microbial community structure. *Appl. Environ. Microbiol.* 63:4907-4913.
67. **Chen*, F**., S. M. Short and C. A. Suttle. 1996. Genetic diversity in marine algal virus communities as revealed by sequence analysis of DNA polymerase genes. *Appl. Environ. Microbiol.* 62: 2869-2874.
68. **Chen, F**., and C. A. Suttle. 1996. Evolutionary relationships among large double-stranded DNA viruses that infect microalgae and other organisms as inferred from DNA polymerase genes. *Virology* 219:170-178.
69. **Chen, F**., S. M. Short and C. A. Suttle. (1996) Sequence analysis indicates high genetic diversity in marine algal virus communities. *EOS* 76 (3 suppl): OS207.

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71. **Chen, F**., and C. A. Suttle. 1995. Nested PCR with three highly degenerate primers for amplification and identification of DNA from related organisms. *BioTechniques*. 18: 609-612.
72. Suttle*, C. A., and **F. Chen**. 1992. Mechanisms and rates of decay of marine viruses in seawater. *Appl. Environ. Microbiol*. 58: 3721-3729.
73. **Chen, F**., B. Reid, and C.R. Arnold. 1991. Maturing, spawning and egg collecting of the white shrimp *Penaeus vannamei* Boone in a recirculating system. *J. World Aqua*. 22: 167–172.

B. Book Chapters

1. Kan, J. T.E. Hanson, and **F. Chen***. 2011. Synchronicity between Population Structure and Proteome Profiles: A metaproteomic Analysis of Chesapeake Bay Bacterial Communities. pp. 637-644. *In*: Frans J. de Bruijn (*ed*.). Handbook of Molecular Microbial Ecology I: Metagenomics and Complementary Approaches. Wiley-Blackwell.
2. Short, S., **F. Chen**, S. Wilhelm. 2009. The Construction and Analysis of Marker Gene Libraries (Chapter 9). *In*: Suttle et al. (eds). Manual of Aquatic Viral Ecology. P82-91. *Limnol. & Oceangr. Methods*
3. Jiao, N.Z., C.L. Zhang, **F. Chen**, J. Kan, and F. Zhang. 2008. Frontiers and Technological Advances in Microbial Processes and Carbon Cycling in the Ocean; pp. 217-267. *In*: L.P. Mertens (ed), Biological Oceanography Research Trends. Nova Science Publishers, Inc. Hauppauge, NY
4. **Chen*, F**. and R. E. Hodson. 2001. *In situ* PCR/RT-PCR coupled with *in situ* Hybridization for Detection of Functional Gene and Gene Expression in Prokaryotic Cells. *In*: J. Paul (ed.) Methods in Marine Microbiology**.** pp.409-424. Academic Press.
5. **Chen*, F.**, W. A. Dustman, R. E. Hodson. 2000. Application of *in situ* Reverse Transcription to Estuarine Bacterial Community Analysis. *In:* C. R. Bell, M. Brylinsky, P. Johnson-Green (ed.), Microbial Biosystems: New Frontiers. Proceedings of the 8th International Symposium on Microbial Ecology. Atlantic Canada Society for Microbial Ecology. Halifax, Canada.
6. **Chen*, F**. and R. E. Hodson. 1999. Viewing Microbes with *in situ* Molecular Approaches, a Mini Review. *In:* H. S. Xu and R. Colwell (ed.), Proceedings in Marine Biotechnology, pp. 300-305, China Ocean Press, Beijing.
7. **Chen*, F**., W. Dustman, M. A. Moran, and R. E. Hodson. 1998. *In situ* PCR Methodologies for Visualization of Microscale Genetic and Taxonomic Diversities of Prokaryotic Communities. ch. 3.3.9. *In*: A. D. L. Akkermans, J. D. van Elsas, F. J. DeBruijn (ed.), Molecular Microbial Ecology Manual. Kluwer Acadamic Publishers, The Netherland.
8. Suttle, C. A., A. M. Chan, **F. Chen**, and D. R. Garza, 1993. Cyanophages and Sunlight: a Paradox. *In:* Trends in Microbial Ecology, eds. R. Guerrero & C. Pedros-Alio. pp303-307.
9. Suttle, C. A., **F. Chen**, and A. M. Chan. 1992. Marine Viruses: Decay rates, Diversity and Ecological Implications. *In:* Nash, C. C. II (ed.) International Marine Biotechnology Conference 'IMBC-91': Short communications of the invited lectures developments in microbiology. W. Brown Co., Dubuque, IA, p. 153-163.
10. **Chen*, F**., and G. Y. Wang. 1988. Relationship between Vertical Distribution Subsurface Chlorophyll a and the Seawater Stability in the Western Tropical Pacific Ocean, p. 485-492.

In: J. P. Chao and J. A. Young (ed.), Air-Sea Interaction in Tropical Western Pacific, China Ocean Press.

11. Wang, G. Y., and **F. Chen**. 1988. Study on Ecological Structure Feature in the Western Tropical Pacific Ocean, p. 493-500. *In*: J. P. Chao and J. A. Young (ed.), Air-Sea Interaction in Tropical Western Pacific, China Ocean Press.

C. Manuscripts submitted or in preparation

1. Zhang-Xian Xie, **Feng Chen**$^{\xi}$, Shu-Feng Zhang, Ming-Hua Wang, Hao Zhang, Ling-Fen Kong, Min-Han Dai, Hua-Sheng Hong, Lin Lin, Da-Zhi Wang. Non viral proteins dominate the proteome of concentrated marine viral community.
2. David Marsan, Zhangxian Xie, Dazhi Wang, and Feng Chen*. Phage infection of *Synechococcus* leads to massive shutdown of genomic island genes.
3. David Marsan,Tsvetan Bachvaroff, Allen Place, **Feng Chen***. Novel toxin-antitoxin system in *Synechococcus*: A resilience mechanism in response to environmental stresses.
4. David Marsan, Zhangxian Xie, Dazhi Wang, and **Feng Chen***. Understanding the adaptive nature of estuarine *Synechococcus* using a multi-omics approach.
5. Xiaotian Han, Nicole Rusconi, Kevin Pagkatipunan, **Feng Chen***. Nutrient extracted from chicken manure accelerates growth of microalga *Scenedesmus* sp. HTB1.

D. Citation report

Citations (Google Scholar): 4,129, h-index: 35, i10-index: 56 (as of March 1, 2017)

PROFESSIONAL ACTIVITIES

1. Invited department seminars

1. "Marine microbes and Environments", lecture, August 3, 2016, Shantou University
2. "Environmental Sustainability", lecture, August 3, 2016, Shantou University
3. "Virus-host Interactions in the Sea" College of Life Science, Shantou University, August 2, 2016
4. "*Synechococcus* vs. *Roseobacter*, different virus-host interactions? The Institute of Marine Ecosphere, Xiamen University, June 17, 2016
5. "Phage-host strategies: To kill or not to kill", The Department of Life Science, Shanghai Jiaotong University, June 9, 2016
6. "To kill or not to kill, a phage tale ". Chesapeake Biological Laboratory, UMCES, October 21, 2015.
7. "Picocyanobacteria in the Estuary – Isolation, diversity, omics, and biogeochemical role". South China Sea Institute of Oceanography, July 30, 2015, Guangzhou, China
8. "Cyanobacteria and their viruses in the Chesapeake Bay", College of Life Science, Ocean University of China, July 15th, 2015, Qingdao, China
9. "Picocyanobacteria and cyanoviruses in the Chesapeake Bay - from isolation, ecology to omics". April 1, 2015, Chesapeake Biological Laboratory, UMCES
10. "Microalgal fixation of CO_2 and other pollutants". The Maryland-Delaware Climate Education, Assessment, and Research (MADE CLEAR) Meeting, December 8, 2014, IMET, Baltimore,

11. "Dissecting the complicated virus-host interactions in the marine ecosystem". The First International Marine Science Meeting, January 10, 2014, Xiamen, China.
12. “What doesn’t kill you makes you stronger”, July 18, 2013, Center of Infectious Disease, Braunschweig, Germany.
13. “Marine Viruses, Killers or Helpers”, July 17, 2013, Hanse-Wissenschaftskolleg Institute for Advanced Study, Delmenhorst, Germany
14. "Diversity of N4 like phages in the natural environment", May 13, 2013, State Key Laboratory of Coastal Marine Science, Xiamen University, Xiamen, China
15. “Algae for green solution”, February 16, 2009. Qingdao Institute of Bioenergy and Bioprocess Technology, CAS, China.
16. “Ecological interactions between cyanobacteria and their viruses in the Chesapeake bay” November 20, 2009. University of Connecticut.
17. “Genetic diversity of cyanopodoviruses unveiled by the DNA polymerase gene” August 19, 2009. Xiamen University.
18. “Community based proteomics in the marine environment” July 3, 2009. Qingdao Institute of Bioenergy and Bioprocess Technology, Chinese Academy of Sciences.
19. “Algae for Biofuels and Clean Coal”. December 7, 2008. Midwest Research Institute, Rockville, Maryland.
20. “Viral transduction machineries of roseobacter: phage, prophage and GTA”. November 9-11, 2008. Department of Microbiology, University of Tennessee, Knoxville.
21. “Microbial genomics and ecological adaptation”, October 10, 2008. Goucher College, Baltimore, Maryland
22. “Exploring microbial worlds: challenges and excitements”. July 14, 2006. The Institute of Oceanography, Chinese Academy of Sciences. Qingdao, China.
23. “Application of metaproteomics in marine biogeochemical studies”. July 2, 2006. The State Key Laboratory of Marine Environmental Sciences, Xiamen University, Xiamen, China
24. “Population dynamics of virio- and bacterio-plankton in the Chesapeake Bay” May, 4, 2004. Graduate College of Marine Studies, University of Delaware, Lewes Campus. “Interaction between virus and host in the coastal ecosystem” March 15, 2004. College of Life Science, Zhong Shan University, Guangzhou, China.
25. “Spatial and temporal variations of bacterioplankton community in the Chesapeake Bay” March 10, 2004. Atmospheric, Marine and Coastal Environment (AMCE) Program, Hong Kong University of Science and Technology, Hong Kong
26. “Distribution and diversity of *Synechococcus* and their phages in the Chesapeake Bay”. April, 2003. Horn Point Laboratory, UMCES.
27. “Exploring microbial diversity and function in the sea”. Nov. 20, 2002. Hong Kong University of Science and Technology.
28. "Exploring microbial diversity and function in the sea", 2000. Department of Biology, University of Alabama
29. "In situ molecular approaches for monitoring gene expression in prokaryotes" Department of Biology and Biochemistry. 1999. University of Colorado.
30. “Molecular tools to study genetic diversity and activity of marine microbes”. June 29, 1999, Division of Microbiology, National Research Center of Biotechnology, GBF, Braunschweig, Germany.
31. “Viewing marine microbes with *in situ* molecular approaches”. June 25, 1999, Max Planck Institute for Marine Microbiology, Bremen, Germany

32. “Genetic diversity of cyanophages infecting marine *Synechococcus* spp.” University of Rostock, June 23, 1999, Rostock, Germany.
33. “Application of *in situ* PCR and RT-PCR to study genetic diversity and function of marine microbes”. June 18, 1999, University of Rostock, Germany.
34. "Exploring microbial diversity of function in marine microbes”. 1999. Department of Biology, University of New Mexico, Albuquerque, New Mexico
35. "*In situ* molecular detection: a way to study microbial function" 1999. Department of Biological Sciences, California State University, Long Beach
36. "Molecular characterization of viruses infecting marine algae", 1998. Department of Biology, University of Akron.
37. "Phylogenetic relationship of algal viruses" 1997. Federated Department of Biological Sciences, New Jersey Institute of Technology
38. "*In situ* PCR for visualizing gene expression in marine bacteria". 1997. Department of Biology, The University of West Florida, Pensacola, FL.
39. “Marine viruses and their ecological roles”. January 10, 1996. Institute of Ecology, University of Georgia

2. Invited conference presentations

1. "Linking phage strategies with bacterial life styles in the ocean". The MEL Annual Meeting and Annual Academic Committee Meeting, January 5-10, 2016, Gu Tian, China.
2. “The era of marine microbiomes” The first meeting for the Microbial Oceanography Society of China on Dec 16, 2015, Qingdao, China
3. “Picocyanobacteria in the Chesapeake Bay estuary – Isolation, diversity, adaptation and omics”. Gordon Research Conference - Marine Molecular Ecology, August 4th, 2015, Hong Kong
4. "Dissecting the complicated virus-host interactions in the marine ecosystem", The 15th International Symposium on Microbial Ecology, August 24-29, 2104, Seoul, Korea.
5. "Roseophages". The 2nd Annual Meeting of *Roseobacter*, October 15-16, 2012, Germany
6. "Phage and phage like structures associated with roseobacters: case studies based on four marine roseobacters". The 1st Annual Meeting of *Roseobacter* - Ecology, Physiology and Molecular Biology of the *Roseobacter* clade. Delmenhorst, June 14-16, 2010, Germany
7. "Biogeography of cyanobacterial podoviruses in the global oceans unveiled by viral DNA polymerase gene". ISME-13, Seattle, Washington, USA. August 22-27, 2010.
8. "Selecting algae for green clean technology". The 8th International Conference on Recirculating Aquaculture in Roanoke, Virginia, August 20, 2010.
9. "Gene and genomic diversity of cyanobacterial viruses in the marine ecosystem". Viruses of Microbes. Institut Pasteur, Paris, France. June 21-25, 2010.
10. “Exploring microbial processes in the ocean in the omic age” Scientific Committee for Ocean Research Workshop. The First Annual Meeting on Microbial Carbon Pump in the Ocean. October 26-29, 2009.
11. “Algal strain selection: a key for algal biofuels”. Algal Biomass Submit 2008, October 23-24, 2008, Seattle, Washington.
12. “Algae for biofuels and clean coal”. NIST/UMBI Bioscience in the 21st Century - "Closing the Gap" session. October 20-22, Gaithersburg, Maryland.

13. "Marine viruses and their impacts on ocean's carbon cycling", also served as the leader for the roundtable 3 – Microbial pumping of carbon in the ocean. The 12th International Symposium on Microbial Ecology, August 17-22, 2008, Cairns, Australia.
14. Session Chair (SS06) for Aquatic Microorganisms, for the 2008 ASLO Summer Meeting, June 8-13, St. John's, Newfoundland, Canada.
15. "Phototrophy vs heterotrophy in aerobic anoxygenic phototrophic bacteria (AAPB) – Observations and Implications from the global oceans and in situ experiments." ASLO Summer Meeting, June 8-13, St. John's, Newfoundland, Canada.
16. Chen, F. Y.L. Zhao, K. Wang and N.Z. Jiao. Viral transduction machineries in roseobacters: phage, prophage and GTA. 2008 ASLO Summer Meeting, June 8-13, St. John's, Newfoundland, Canada.
17. Panel presentation - Algae and algal biofuels. Second Generation Biofuels Development Summit, May 13-16, 2008, Baltimore
18. "Characterization of conserved genes for virus group". The Scientific Committee for Oceanographic Research (SCOR)-working group on marine viruses. June 1-3, 2006, The University of British Columbia, Vancouver, BC.
19. "A proteomic study of picoplankton community". The 10th International Symposium on Microbial Ecology (ISME-10). August 22-27, 2004. Cancun, Mexico.
20. "Unexpected genetic diversity found in marine virus communities". ASLO Summer Meeting. June 10-15, 2002, Victoria, Canada
21. "Genomic evolution of lytic and lysogenic phages". ASLO/AGU Ocean Science Meeting. February 11-15, 2002. Hawaii

3. Conference presentations

1. Feng Chen, Niche adaptation of picocyanobacteria in the Chesapeake Bay - from ecology, physiology to omics. The 11th International Marine Biotechnology Conference, August 29-June 2, 2016, Baltimore (oral).
2. Daniel Fucich and Feng Chen. Developing an innovative and efficient microalgal system to reduce CO_2 emission and produce valuable products. The 11th International Marine Biotechnology Conference, August 29-June 2, 2016, Baltimore (oral).
3. David Marsan, Allen Place, and Feng Chen. Novel toxin-antitoxin system in marine *Synechococcus*: a resilience mechanism in response to environmental stresses. The 11th International Marine Biotechnology Conference, August 29-June 2, 2016, Baltimore (oral).
4. Yuanchao Zhan and Feng Chen. Phage isolation continues to surprise us – a novel phage infecting marine Roseobacter. The 11th International Marine Biotechnology Conference, August 29-June 2, 2016, Baltimore (oral).
5. Mengqi Sun, Yuanchao Zhan, David Marsan, Feng Chen. Analysis of virioplankton community in the Delaware Bay using high-through put sequencing. The 11th International Marine Biotechnology Conference, August 29-June 2, 2016, Baltimore (poster).
6. David Marsan, Zhangxian Xie, Dazhi Wang, and Feng Chen. Phage infection of an estuarine *Synechococcus* leads to massive shutdown of genomic island genes. The 16th International Symposium on Microbial Ecology, August 21-27, 2106, Montreal, Canada. (oral)
7. Yuanchao Zhan, Sijun Huang, Sonja Voget, Meinhard Simon, Feng Chen. A novel roseobacter phage possesses features of podoviruses, siphoviruses, prophages and gene transfer agents. The 16th International Symposium on Microbial Ecology, August 21-27, 2106, Montreal, Canada (poster)

8. Zhao Zhao, Michael Gonsior, Rui Zhang, Nianzhi Jiao, and Feng Chen. The microbial degradation of viral-induced *Synechococcus* dissolved organic matter in coastal seawater (poster), GRC on Marine Biogeochemistry, June 12-17, Hong Kong
9. David Marsan and Feng Chen. Understanding functional adaptation of an estuarine *Synechococcus* via growth rate and multi-dimensional omics studies. Gordon Research Conference - Marine Molecular Ecology, August 4th, 2015, Hong Kong
10. Yuanchao Zhan, Alison Buchan, and Feng Chen. Novel N4 bacteriophages prevail in the cold biosphere. Gordon Research Conference - Marine Molecular Ecology, August 4th, 2015, Hong Kong
11. David Marsan and Feng Chen. Unveiling the ecophysiology of an estuarine *Synechococcus* – via genomic, transcriptomic and proteomic analyses. The 115th General Meeting of the American Society for Microbiology, May 31 to June 2, 2015. New Orleans
12. Yuanchao Zhan, Alison Buchan, Feng Chen, Unexpected diversity and niche partitioning of N4 like viruses in the Chesapeake Bay. The 15th International Symposium on Microbial Ecology, August 24-29, 2014, Seoul, Korea.
13. Hongyue Dang, Haixia Zhou, Deli Wang, Feng Chen, Zhinan Zhang, Nianzhi Jiao, Farooq Azam. Distinct contributions of microbial extracellular and intracellular unrease activity to N cycling processes in marine sediments. The 15th International Symposium on Microbial Ecology, August 24-29, 2104, Seoul, Korea.
14. Feng Chen "Chesapeake Bay microbial banking – from cultures to omics", short presentation to NIST visitors, March 18, 2015, IMET, Baltimore.
15. Organizer, International Workshop on Marine Viruses: from cultures to omics, July 1, 2013. Hanse-Wissenschaftskolleg Institute for Advanced Study, Delmenhorst, Germany
16. Discussion Leader, for Session of Molecular Ecology of Marine Microbes, Gordon Research Conference on Marine Molecular Ecology. August 11-16, 2013, Hong Kong
17. "Roseophage vs cyanophage: a different phage-host strategy?", July 1, 2013, International Workshop on Marine Viruses: from Cultures to Omics, Hanse-Wissenschaftskolleg Institute for Advanced Study, Delmenhorst, Germany
18. Zheng Liu, Bangzhou Zhang, Liping Huang, Tianling Zheng, Feng Chen, An "uncultured" bacterial pathogen causes the lysis of diatom Phaeodactylum tricornutum. The 14th International Symposium on Microbial Ecology (ISME-14), August 19-24, 2012, Copenhagen, Denmark
19. Yongle Xu, Nianzhi Jiao, Feng Chen, Cold endured, low light adapted and diverse picocyanobacteria isolated from the winter season of Chesapeake estuary. The 14th International Symposium on Microbial Ecology (ISME-14), August 19-24, 2012, Copenhagen, Denmark
20. Sijun Huang, Nianzhi Jiao, Feng Chen, Ecogenomics of marine cyanobacterial podoviruses. The 14th International Symposium on Microbial Ecology (ISME-14). August 19-24, 2012, Copenhagen, Denmark
21. Feng Chen "Tiny viruses and their big role in the ocean". The International Ocean Sciences Summer School and PhD Student Forum -- Multidisciplinary Research of Geo-Bio-Chemical Interactions in the Ocean and at the Seafloor, July 1-8, 2011, Xiamen
22. Feng Chen "Podoviruses of cyanobacteria in the sea, a different story". The 3rd Annual Meeting of the SCOR Working Group on the Role of Viruses in Marine Ecosystems. University of Delaware. Newark, Delaware May 14-16, 2009.

23. Yanlin Zhao, Kui Wang, Charles Budinoff, Alison Buchan, Andrew Lang, Feng Chen. Diversity of *Roseobacter* genetic transfer agent (GTA) in the Chesapeake Bay 2008. ASLO Summer Meeting, June 8-13, St. John's, Newfoundland, Canada.
24. Crump, Byron C., Heather E. Adams, Feng Chen, John E. Hobbie, Jinjun Kan, and George W. Kling. Synchrony and seasonality in bacterioplankton community composition. 11th International Symposium on Microbial Ecology (ISME-11), Vienna, Austria, August 20-25, 2006.
25. Wang, K., K. Omara, J. Kan, and F. Chen. 2006. Estuarine cyanophages and their psbA gene. The Scientific Committee for Oceanographic Research (SCOR)-working group on marine viruses. June 1-3, 2006, The University of British Columbia, Vancouver, BC.
26. Kan, J., E. B. Örnólfsdóttir, K. Wang, K. O'Mara, B. C. Crump, K. E. Wommack, and F. Chen. Co-monitoring virioplankton and bacterioplankton in Chesapeake Bay. The Scientific Committee for Oceanographic Research (SCOR)-working group on marine viruses. June 1-3, 2006, The University of British Columbia, Vancouver, BC.
27. Wang, K., R. Belas, M. A. Moran, F. Chen. Visualization and enumeration of GTA particles using SYBR Gold stain. The Scientific Committee for Oceanographic Research (SCOR)-working group on marine viruses. June 1-3, 2006, The University of British Columbia, Vancouver, BC.
28. Chen, F., K. Wang, J. Stewart, R. Belas. 2006. Induction of multiple prophages from a marine *Roseobacterim*, a genomic approach. American Society of Limnology and Oceanography Summer Meeting, June 5-9, 2006, Victoria, Canada.
29. Kan, J., T. Hanson, C. Cary, E. Wommack, R. Hill, F. Chen. 2006. Community proteomics, a new way to explore microbial functions in natural environments. American Society of Limnology and Oceanography Summer Meeting, June 5-9, 2006, Victoria, Canada
30. Wang, K., and F. Chen. 2006. Seasonal successions and genetic diversities of estuarine *Synechococcus* and their co-occurring phages: A three-year survey in Chesapeake Bay. American Society of Limnology and Oceanography Summer Meeting, June 5-9, 2006, Victoria, Canada.
31. O'Mara, K. J., K. Wang, J. Kan, S. Bench, T. Hanson, E. Wommack, F. Chen. 2006. Genetic diversity and seasonal patterns of cyanophage *psbA* gene in the estuarine environment revealed by a newly designed PCR primer set. American Society of Limnology and Oceanography Summer Meeting, June 5-9, 2006, Victoria, Canada**.**
32. Chen, F. "Lysogenic potential of marine bacteria" June 28, 2006. Xiamen University, Xiamen, China.
33. Eissler, Y., K. Wang, F. Chen, W. Coats. 2006. Molecular characterization of *Chaetoceros cf gracilis* virus isolated from Chesapeake Bay, USA. American Society of Limnology and Oceanography Summer Meeting, June 5-9, 2006, Victoria, Canada.
34. Kan, J., T. Hanson, B. Campbell, C. Cary, E. Wommack, R. Hill, and F. Chen. Metaproteomics, a new way to explore microbial function in natural environments. HUPO 4th Annual World Congress, August 28-September 1, 2005. Munich, Germany
35. Wang, K. and F. Chen. Isolation and characterization of cyanophages of marine cluster B *Synechococcus*. ASLO summer meeting June 18-24, 2005. Santiago de Compostela, Spain.
36. Wang, K. and F. Chen. Characterization of cyanophages infecting estuarine Syn*echococcus* spp. International Marine Biotechnology Conference, June 7-12, 2005, St. John's, Newfoundland, Canada.

37. Chen, F., K. Wang, J. Kan, and M. Suzuki. *Synechococcus* ecotypes in Chesapeake Bay revealed by the RuBisCO gene and ITS sequences. International Marine Biotechnology Conference, June 7-12, 2005, St. John's, Newfoundland, Canada.
38. Kan, J., T. Hanson, K. Wang, B. Campbell, C. Cary, E. Wommack, R. Hill, and F. Chen. Meta-proteomics, a new way to explore microbial processes in the ocean? International Marine Biotechnology Conference, June 7-12, 2005, St. John's, Newfoundland, Canada.
39. Chen, F., K. Wang, J. Kan, D. Bachoon, L. Campbell. Phylogenetic diversity of estuarine *Synechococcus* revealed by ribulose-1,5-bisphophate carboxylase-oxygenase large subunit gene sequences. The 10th International Symposium on Microbial Ecology, ISME-10. August 22-27, 2004. Cancun, Mexico.
40. Kan, J., M. Suzuki, K. Wang, and F. Chen. Spatial and temporal variation of Chesapeake bacterioplankton communities revealed by DGGE and clone libraries. The 10th International Symposium on Microbial Ecology, ISME-10. August 22-27, 2004. Cancun, Mexico.
41. Kan, J., and F. Chen. Are 5000 bacterial cells per ml the detection threshold for DGGE analysis? The 10th International Symposium on Microbial Ecology, ISME-10. August 22-27, 2004. Cancun, Mexico.
42. Wang, K., J. Kan, and F. Chen. Co-monitoring *Synechococcus* and synechophage in the Chesapeake Bay. The 10th International Symposium on Microbial Ecology, ISME-10. August 22-27, 2004. Cancun, Mexico.
43. Suzuki, M.T., J. Kan, F. Chen and S. E. Evans. Fast Screening and analysis of Chesapeake Bay bacterioplankton rIBOSOMAL RNA operon clone libraries. The 10th International Symposium on Microbial Ecology, ISME-10. August 22-27, 2004. Cancun, Mexico.
44. Chen, F. and K. Wang. Population Dynamics and Genetic Diversity of *Synechococcus* in the Chesapeake Bay. Gordon Research Conference on Marine Microbes: Picophytoplankton, from Ecology to Genomics, June 6-10, Roscoff, Brittany, France.
45. Isaacs, L. T., J, Kan, S. Sidiqqi, D. Horn, F. Chen, T. Wright, and J. Enticknap, and R. Hill. Analysis of the microbial community of the Chesapeake redbeard sponges, *Microciona prolifera*. The 104th General Meeting of American Society of Microbiology. May, 2004, New Orleans.
46. Wommack, K. E. and F. Chen. Diversity and community composition of virioplankton over an annual biological cycle of the Chesapeake Bay. Ocean Research Conference, February 15-20, 2004, Hawaii.
47. Chen, Feng and Kui Wang. Phylogenetic relationship of estuarine *Synechococcus* spp. revealed by the RubisCO gene. Marine Biotechnology Conference September 21-27, 2003, Chiba, Japan.
48. Kan, Jingjun and F. Chen. Genetic fingerprinting and proteomic analysis of bacterial communities in the Chesapeake Bay. Marine Biotechnology Conference September 21-27, 2003, Chiba, Japan.
49. Wang, Kui and F. Chen. Isolation and characterization of *Synechococcus* spp. and their phages from Chesapeake Bay. Marine Biotechnology Conference September 21-27, 2003, Chiba, Japan.
50. Wommack, K. E., Kurt E. Williamson, Danielle Winget, Rebekah R. Helton, Shellie Bench, F. Chen, Kui Wang, Jinjun Kan, D. W. Coats, Sean Cooney, and Yvan Bettarel. Microbial Observatory for Virioplankton Ecology (MOVE): The role of viruses in the annual biological cycle of the Chesapeake Bay. NSF Microbial Observatories Workshop, Arlington, VA, September 15-16, 2003.

51. Chen, F. and J.J. Kan. Environmental microbial proteomics: linking microgeochemial functions. The 103th General Meeting of American Society of Microbiology. May 18-22, 2003, Washington DC.
52. Wang, K. and F. Chen. Genetic diversity and population dynamics of *Synechococcus* spp. and cyanophages in the Chesapeake Bay. The 103th General Meeting of American Society of Microbiology. May 18-22, 2003 Washington DC.
53. Kan, J.J. and F. Chen. Spatial and temporal dynamics of bacterial communities in the Chesapeake Bay. The 103th General Meeting of American Society of Microbiology. May 18-22, 2003, Washington DC.
54. Chen, F. Series Lectures and Seminars on Microbial Ecology. Xiamen University, China. Nov. 13-19, 2002.
55. Wang, K. and F. Chen. Genetic diversity of virus that infect marine *Synechococcus* in the Chesapeake Bay. MEES colloquium, College Park. Nov. 2-3, 2001.
56. Chen, F., Y. Zhong, J. Lu, L. Poorvin, S. Wilhelm, and R. Hodson. What do we learn from gene and genomic sequences of cyanophages? The 9th International Symposium of Microbial Ecology. Amsterdam, August 26-31.
57. Chen, F., J. Lu, Y. Zhong, R. E. Hodson. Distribution, diversity and genomic sequence of cyanophages infecting marine Synechococcus spp. The 101th general meeting of the American Society for Microbiology, Orlando, May 20-24, 2001.
58. Chen, F., B. Binder, R. E. Hodson. Flow cytometric detection of specific gene expression in prokaryotic cells using *in situ* RT-PCR. DOE BI-OMP Workshop, March 30-31, 2001, Savannah, Georgia.
59. Chen, F. and R. E. Hodson. Marine cyanophages: distribution, phenotypes, genotypes, phylogeny and genomic sequencing. The 5th International Marine Biotechnology Conference, September- October, 2000. Townsville, Queensland, Australia.
60. Hodson, R. E. and F. Chen. Visualizing Marine Microbes with *in situ* Molecular Approaches (an overview). The 5th International Marine Biotechnology Conference, September- October, 2000. Townsville, Queensland, Australia.
61. Wommack, K. E., F. Chen, and R. E. Hodson. Marine diazotroph ecology: development of a molecular genetic *in situ* detection method. The 5th International Marine Biotechnology Conference, September- October, 2000. Townsville, Queensland, Australia.
62. Chen, F., Y. Zhong, D. Bachoon, J. R. Lu, S. C. K. Lau, L. Campbell and R. E. Hodson. Cross infectivity of marine viruses unveiled by genetic linkage of their hosts. American Society of Limnology and Oceanography-2000, Copenhagen, Denmark, 5-9 June, 2000.
63. Hodson, R. E. and F. Chen, In situ activity and functional diversity of microbes linking carbon and nitrogen cycles in marine ecosystems. Aquatic Science Meeting, ASLO, June 5-9, 2000. Copenhagen, Denmark.
64. Lu, J.R., F. Chen and R. E. Hodson. Genomic sequence of a lytic cyanophage of *Synechococcus* spp. The 100th General Meeting of the American Society for Microbiology, Los Angeles, May 21-25, 2000.
65. Zhong, Y., F. Chen, and R. E. Hodson. Phyletic diversity of marine cyanophages as revealed by viral capsid assembly protein gp 20. The 100th General Meeting of the American Society for Microbiology, Los Angeles, May 21-25, 2000.
66. Bachoon, D., F. Chen and R. E. Hodson. RNA recovery and detection of mRNA by RT-PCR from stored prokaryotic samples. The 100th General Meeting of the American Society for Microbiology, Los Angeles, May 21-25, 2000.

67. Hodson, R.E. and F. Chen. In situ Activity & Functional Diversity of Microbes Linking Carbon & Nitrogen Cycles in Marine Ecosystems. DOE BI-OMP Workshop, March 15-16, 2000, Tallahassee, Florida.
68. Chen, F., D. Bachoon, S. C. K. Lau, J. R. Lu, L. Campbell and R. E. Hodson. Coastal *Synechococcus* spp. are much more complex than oceanic *Synechococcus* spp. DOE BI-OMP Workshop, March 15-16, 2000, Tallahassee, Florida.
69. Sullivan, J., F. Chen and R. H. Hodson. Toward the application of prokaryotic in situ PCR to the study of denitrification. DOE BI-OMP Workshop, March 15-16, 2000, Tallahassee, Florida.
70. Dustman, W. A., F. Chen and R. E. Hodson. Filter concentration of laboratory bacterial cultures and natural seawater communities: an adaptation for analysis of genetic and functional diversity by in situ PCR, in situ RT-PCR and in situ reverse transcription. DOE BI-OMP Workshop, March 15-16, 2000, Tallahassee, Florida.
71. Bachoon, D., F. Chen and R. E. Hodson. RNA recovery and detection of mRNA by RT-PCR from preserved prokaryotic samples. DOE BI-OMP Workshop, March 15-16, 2000, Tallahassee, Florida.
72. Wommack, K. E., F. Chen and R. E. Hodson. A rapid method for obtaining the complete nucleotide coding sequence for nifH. DOE BI-OMP Workshop, March 15-16, 2000, Tallahassee, Florida.
73. Dudeck, K. L., F. Chen and R. E. Hodson. PCR amplification of the amoA gene from two marine ammonium-oxidizing bacteria, *Nitrosomonas cryotolerans* and *Nitrosococcus oceani* DOE BI-OMP Workshop, March 15-16, 2000, Tallahassee, Florida.
74. Chen, F., J. R. Lu, Y. Zhong, and R. E. Hodson. Marine cyanophages reveal a high phenotypic and genotypic diversity. The 99th General Meeting of the American Society for Microbiology, Chicago, IL., May 30-June 3, 1999.
75. Chen, F., J. R. Lu, and R. E. Hodson. Enumeration of viruses in aquatic environemnts using SYBR Glod stain and digital image analysis. The 99th General Meeting of the American Society for Microbiology, Chicago, IL., May 30-June 3, 1999.
76. Dustman, W. A., F. Chen, and R. E. Hodson. Filter concentration of natural seawater microbial communities and analysis of genetic and functional diversity by *in situ* reverse transcription (ISRT) and *in situ* RT-PCR. The 99th General Meeting of the American Society for Microbiology, Chicago, IL., May 30-June 3, 1999.
77. Williams, K. L., F. Chen, W. A. Dustman, and R. E. Hodson. PCR amplification of the *amoA* gene from a marine ammonium-oxidizing bacterium *Nitrosomonas cryotolerans*. The 99th General Meeting of the American Society for Microbiology, Chicago, IL., May 30-June 3, 1999.
78. Chen, F., J. R. Lu, and R. E. Hodson. Distribution of cyanophages and total viruses along Georgia coastal rivers. ASLO meeting, Feb. 1-5. 1999, Santa Fe, New Mexico.
79. Chen, F., J. Lu and R. E. Hodson. Molecular phylogeny and *in situ* mRNA detection of the rbcL gene in Marine *Synechococcus* spp. ASLO meeting, Feb. 1-5. 1999, Santa Fe, New Mexico.
80. Wommack, E., F. Chen and R. E. Hodson. Nitrogenase in marine *Vibrio*. ASLO meeting, Feb. 1-5. 1999, Santa Fe, New Mexico.
81. Sullivan, J. B., F. Chen and R. E. Hodson. Constitutive production of nitrite reductase in *Pseudomonas stutzeri* detected by *in situ* RT-PCR. ASLO meeting, Feb. 1-5. 1999, Santa Fe, New Mexico.

82. Hodson, R. E., F. Chen and W. A. Dustman. Application of *in situ* reverse transcription to estuarine bacterial community analysis. ASLO meeting, Feb. 1-5. 1999, Santa Fe, New Mexico.
83. Chen, F. and R. E. Hodson. Viewing microbes with *in situ* molecular approaches. International Symposium on Marine Biotechnology (ISPPMB'98). Oct. 6-9, Qingdao, China.
84. Chen, F., J. R. Lu, and R. E. Hodson. RuBisCO genes reveal a close relationship between *Synechococcus* strains WH7803 and WH8101. The 8th International Symposium on Microbial Ecology, Aug. 9-14, 1998, Halifax, Canada.
85. Hodson, E. and F. Chen. *In situ* nucleic acid amplification for studies of estuarine bacterial activity and diversity. The 8th International Symposium on Microbial Ecology, Aug. 9-14, 1998, Halifax, Canada.
86. Dustman, W. A., F. Chen and R. E. Hodson. Characterizing genetic diversity and activity of filter-concentrated microorganisms using a modified in situ reverse transcription protocol. The 8th International Symposium on Microbial Ecology, Aug. 9-14, 1998, Halifax, Canada.
87. Chen, F. and R. E. Hodson. Detection of carbon and nitrogen utilizing genes (rbcL and amoA) and their expression in bacteria using *in situ* PCR/hybridization methods. The 98th General Meeting of the American Society for Microbiology, Atlanta, Georgia, 1998.
88. Chen, F., W. A. Dustman, M. A. Moran and R. E. Hodson. Using prokaryotic *in situ* PCR to examine the *todC1* gene and its expression in a toluene degrading bacterium in marine microcosms. The 97th General Meeting of the American Society for Microbiology, Miami Beach, Florida, 1997.
89. Hodson, R. E., M. A. Moran, F. Chen, W. Dustman, and R. Garg. Amplified *in situ* taxonomic identification and detection of specific genes and their expression in marine bacterial population. ASLO 97 Aquatic Sciences Meeting. Santa Fe, New Mexico, February, 10-14, 1997.
90. Chen, F., J. M. González, W. A. Dustman, M. A. Moran and R. E. Hodson. *In situ* reverse transcription, an approach to characterize genetic diversity (based on 16S rRNA) and activity (based on mRNA) of prokaryotes. ASLO 97 Aquatic Sciences Meeting. Santa Fe, New Mexico, February, 10-14, 1997.
91. Chen, F., S. M. Short and C. A. Suttle. Sequence analysis indicates high genetic diversity in marine algal virus communities. Ocean Sciences Meeting, San Diego, California, February, 12-16, 1996.
92. Chen, F. "PI-PCR, A Potential Tool for LMER Projects". The Land-Margin Research Program Annual Meeting, Savannah, Georgia, November 7-9, 1996.
93. Chen, F. and C. A. Suttle. Phylogeny of large double-stranded DNA viruses which infect microalgae, as inferred from DNA polymerase gene sequences. The 14th annual meeting of American Society for Virology, Austin, Texas, July 8-12, 1995.
94. Chen, F., M. T. Cottrell and C. A. Suttle. DNA polymerase reflects genomic relatedness among algal viruses. The 95th General Meeting of the American Society for Microbiology, Washington, D. C., May 21-25, 1995.
95. Suttle, C. A., F. Chen and M. T. Cottrell. DNA polymerase genes as probes of the diversity and phylogeny of marine microbial populations. Keystone Symposia on Molecular and Cellular Biology, Santa Fe, New Mexico, March 5-11, 1995.
96. Chen, F., M. T. Cottrell and C. A. Suttle. Development of a PCR-based technique for detection and quantifying algal viruses in aquatic environments. ALSO/PSA meeting, Miami, Florida, June 12-16, 1994.

97. Chen, F., B. Reid and C. R. Arnold. Maturation and spawning of the white shrimp *Penaeus vannamei* Boore in a recirculating system. World Aquaculture Society Conference, Halifax, Nova Scotia, June 10-14, 1990.

II. Other Professional Activities

- Reviewer for the following scientific journals:
  Nature
  Science
  PNAS
  ISME Journal
  Environmental Microbiology
  Applied and Environmental Microbiology
  Limnology and Oceanography
  Virology
  J. Virology
  Scientific Reports
  Aquatic Microbial Ecology
  FEMS Microbiology Reviews
  FEMS Microbiological Letters
  Microbial Ecology
  Continental Shelf Research
  Journal of Microbiological Methods
  Archives of Virology
  Oceanologica
  BioTechniques
  BMC Aquatic Biosystems (Saline Systems)
- Reviewer for the following granting agencies:
  National Science Foundation
  Department of Energy
  United States Department of Agriculture
  Sea Grants/National Oceanic and Atmospheric Administration
  Environmental Protection Agency
  Natural Environment Research Council
  The Cooperative Institute for Coastal and Estuarine Environmental Technology (CICEET)
  Research Grants Council of Hong Kong
- Review panels served
  Member, review panel for the NSF Microbial Genome Program, May 19-22, 2008
  Member, review panel for Sun Grants, 2007
  Member, review panel for the U.S. Department of Energy Environmental Remediation Science Program, August 21-22, 2006.
  Member, review panel for the U.S. National Science Foundation Microbial Observatories Program, December 1-3, 2004.
  Member, review panel for the U.S. Department of Energy Natural and Accelerated Bioremediation Research Program, April 28-29, 2003.

- Discussion leader "Planktonic Marine Systems" for Microbial Observatory/Life in Extreme Environments meeting at the NSF headquarters, September 22-23, 2002.
- Reviewer for one external university promotion review in 2003
- Invited to participate a colloquium entitled “Marine Microbial Diversity: The Key to Earth’s Habitability” April 8-10, 2005, San Francisco, California. The colloquium organized by the American Academy of Microbiology, the honorific leadership group of the American Society for Microbiology aimed to bring together approximately 35 scientists in this field.

III. Professional Organizations

- Associate Member, Scientific Committee for Ocean Research - Microbial Carbon Pump in the Ocean, 2008-2012
- Member, International Society for Microbial Ecology, 1996-present
- Associate Member, Scientific Committee for Ocean Research - Marine Viruses, 2005-2008
- Member, Pan American Marine Biotechnology Association, 2005-2010
- Member, American Society of Limnology and Oceanography, 1995-2007
- Member, American Society of Microbiology, 1995-present
- Member, American Society of Virology, 1993-1995

IV. Research Collaboration

- 2014-present, Dr. Michael Gonsior, Chesapeake Biological Laboratory, UMCES. Fate of virus mediated dissolved organic matter.
- 2014-present, Dr. Barbara Campbell, Clemson University, Microbial metagenomics in estuarine ecosystems
- 2012-present, Dr. Yasuyuki Takiguchi, Chiba Institute of Technology, Japan. Lipid analysis of microalgae
- 2013-present, Dr. Yantao Li, Institute of Marine and Environmental Technology, University of Maryland Center for Environmental Science. Algal lipid analysis
- 2012-present, Dr. Meinhard Simon, University of Oldenburg, Germany, Roseobacter and roseophage genomes
- 2010-present, Mr. Robert Mroz, HY-TEK Bio, LLC. Algae-based carbon mitigation
- 2009-present, Dr. Dazhi Wang, Xiamen University, Shotgun proteomics and functional genomics.
- 2009-2014, Dr. Rodger Harvey, Chesapeake Biological Laboratory, UMCES. Cyanobacterial community in the Bering Sea.
- 2009-2010. Dr. Markus Weinbauer, Laboratoire d'océanographie de Villefranche, France. Viral biogeochemical cycle.
- 2009-2011, Dr. Steve Short, University of Toronto Mississauga, Genetic diversity of marine viruses.
- 2008-present, Dr. Steven Wilhelm, University of Tennessee. Cyanophage diversity in the open ocean.
- 2008-2010, Dr. Hans-Wolfgang Ackermann, Laval University, Canada. Phage morphology – Transmission electron microscopy.
- 2008-present, Dr. Jian Xu, Qingdao Institute of Bioenergy and Bioprocess Technology, CAS. Algal genomics and bioinformatics.

- 2007-present, Dr. Joseph Pitula, University of Maryland Eastern Shore, Genetic diversity of *Hematodium*
- 2007-2012, Dr. Rolf Halden, Arizona State University. Protein characterization and proteomics.
- 2007-2010, Dr. Andrew Lang, The Memorial University, Newfoundlands, Canada. Genetic transfer agent.
- 2007-present, Dr. Alison Buchan, University of Tennessee. Chesapeake Bay Roseobacter and roseophage.
- 2007-2009, Dr. William Sparks, Space Telescope Science Institute. Detection of circular polarization of cyanobacteria.
- 2007-2008, Mr. Paul Wood, Algenol Biofuels, Isolation of cyanobacteria
- 2006-2009, Dr. Mary Ann Moran, School of Marine Programs, University of Georgia. Characterization of genetic transfer agent (GTA) from *Silicibacter pomeryoi* DSS-3.
- 2006-present, Dr. Nianzhi Jiao, State Key Laboratory of Marine Environments, Xiamen University. Marine viral and bacterial ecology
- 2005-2006, Dr. Robert Belas, Center of Marine Biotechnology, UMBI. Induction of prophages from a marine Roseobacter, *Silicibactor* sp. TM1040 using genomic information.
- 2005-2007, Dr. Thomas Hanson. Delaware Biotechnology Institute, University of Delaware. Protein characterization.
- 2004-present, Dr. Eric Wommack, Delaware Biotechnology Institute, University of Delaware. Virioplankton ecology in the Chesapeake Bay.
- 2004-2007, Dr. Byron Crump, Horn Point Laboratory, University of Maryland Center for Environmental Science. Bacterial community DGGE analysis.
- 2004-2008, Dr. Marcelino Suzuki, Chesapeake Biological Lab, University of Maryland Center for Environmental Science. Bacterial community clone library analysis.
- 2003-present, Dr. Russell Hill, Institute of Marine and Environmental Technology, University of Maryland Center for Environmental Science. Microbial Proteomics, Microalgal biotechnology

TEACHING ACTIVITIES

I. Graduate Faculty Appointment:

- University of Maryland Center for Environmental Science, 2010-present
- Marine Estuarine Environmental Sciences Graduate Faculty, University of Maryland at College Park, 2000-present.
- Graduate School of University of Maryland College Park, 2000-present

II. Course Taught:

- Instructor, Marine Microbial Ecology (MEES 608L) Spring 2015, graduate level (2 credit), MEES Graduate Program, UMD/UMCES.
- Guest lecture, MEES698A, Aquatic Microbial Ecology, Lecture on Marine Viral Ecology, Spring 2014.
- Guest lectures, MEES498T698T, Marine Environmental Biotechnology, Spring 2015, two lectures, one on Microbial Ecology, the other one on Algal Carbon Fixation
- Instructor, Marine Microbial Ecology (MEES 608L) Spring 2014, graduate level (2 credit), MEES Graduate Program, UMD/UMCES.

- Instructor, Marine Microbial Ecology (MEES 608L) Spring 2013, graduate level (2 credit), MEES Graduate Program, UMD/UMCES.
- Instructor, Microbial and Environmental Genomics (MEES 608G) Fall 2011, graduate level (2 credit), MEES Graduate Program, University of Maryland.
- Instructor, Microbial and Environmental Genomics (MEES 608G) Fall 2009, graduate level (2 credit), MEES Graduate Program, University of Maryland.
- Instructor, Marine Microbial Ecology (MEES 608L) Spring 2009, graduate level (2 credit), MEES Graduate Program, University of Maryland.
- Instructor, Microbial and Environmental Genomics (MEES 608G) Fall 2008, graduate level (2 credit), MEES Graduate Program, University of Maryland.
- Instructor, Marine Microbial Ecology (MEES 608L) Spring 2008, graduate level (2 credit), MEES Graduate Program, University of Maryland.
- Instructor, Microbial and Environmental Genomics (MEES 608G) Fall 2007, graduate level (2 credit), MEES Graduate Program, University of Maryland.
- Instructor, Microbial Oceanography (lecture series), Summer 2007. Xiamen University
- Instructor, Summer Microbiology and Research Training (SMaRT) course (for minority student), 12th to 21th July 2004 at COMB, with Russell and Clay.
- Instructor, Marine Microbial Ecology (MEES 638) Spring 2004, graduate level (2 credit), MEES Graduate Program, University of Maryland.
- Instructor, Marine Microbial Ecology (MEES 608L) Spring 2003, graduate level (2 credit), MEES Graduate Program, University of Maryland.
- Instructor, Marine Microbial Ecology (MEES 608L), Spring 2002, graduate level (1 credits), MEES Graduate Program, University of Maryland.
- Invited lecturer, Four series lectures on Marine Microbial Ecology. Institute of Environmental Sciences, Xiamen University, China, Nov. 2002.
- Guest lecturer, Algal Bioproducts in Marine Biotechnology. Marine Biotechnology course. John Hopkins University, February 15, 2002.
- Guest lecturer, Exploring Genomes of Uncultivated Bacteria in the Sea. Dental School, University of Maryland at Baltimore. December 7, 2001.
- Invited lecturer, Watching the Arm Race Between Marine Viruses and their Hosts. Department of Microbiology, Goucher College, Baltimore. October 5, 2001.
- Guest lecturer, Marine Biology, undergraduate course, School of Marine Program, University of Georgia, 1997, 1998.
- Invited lecturer, *In situ* Molecular Techniques. Lecture in Distinguished Visiting Scientist series at Texas A&M University. 1997.
- Teaching assistant, Biological Oceanography, for Dr. Curtis Suttle, Marine Science Institute, The University of Texas at Austin 1992.

III. Graduate Students Advised or Co-advised

1. Yan Zhong, M.S., 1998-2001, Marine Microbial Diversity. University of Georgia. Thesis title: "Phylogenetic diversity of marine cyanophage isolates and natural virus communities as revealed by sequences of viral capsid assembly protein gene g20"
2. Jingjun Kan, Ph.D, 2001-2006, Research focus: Microbial diversity and function in the Chesapeake Bay

3. Kui Wang, Ph.D, 2001-2007, Research focus: Marine *Synechococcus* and cyanophage in the Chesapeake Bay
4. Rui Zhang, Ph.D, 2003-2004 (HKUST), Research focus: Nitrogen-fixing bacterial in the coastal environment.
5. Kate Omara, M.S. 2005-2006 (Towson University), Risk assessment of viral diseases on Asian oyster *C. ariakensis.*
6. Marianne Ngure, M.S. 2007-2008 (Towson University), Cyanophages infecting Chesapeake Bay cyanobacteria
7. Yanlin Zhao, Ph.D, 2006-2009 (Xiamen University, co-advisor), Roseophage genomics and GTA diversity.
8. Meiru Zhao, M.S. 2006-2008 (Xiamen University, co-advisor), AAPB diversity
9. Yongyu Zhan, Ph.D, 2006-2009 (Xiamen University, co-advisor), Microbial proteomics
10. Haiyuan Cai, Ph.D, 2008-2011 (Xiamen University, co-advisor). Cyanobacterial ecology
11. Sijun Huang, Ph.D, 2008-2012 (Xiamen University, co-advisor). Genomics and genetic diversity of cyanophage
12. Cindy Chen, M.S. 2009-2010 (John Hopkins University). Algal biofuels.
13. Yongle Xu, Ph.D, 2010-2015 (Xiamen University, co-advisor). Cold adaptation of estuarine cyanobacteria
14. Yuanchao Zhan, Ph.D, 2011-present. Ecology, genomics and evolution of phages infecting marine roseobacters
15. David Marsan, Ph.D, 2013-present. Genomics, transcriptomics and proteomics of Chesapeake Bay picocyanobacteria
16. Zhao Zhao, Ph.D, 2014-present (Xiamen University, co-advisor). Fate and transportation of virus-mediated DOM
17. Mengqi Sun, Ph.D, 2015-present. Interaction between cyanobacteria and cyanophage in the Chesapeake Bay
18. Daniel Fucichi, Ph.D, 2015-present. Mitigation of carbon dioxide using microalgae
19. Ana Sosa Morfin, M.S., 2016-present. Molecular biology of estuarine *Synechococcus*

IV. Postdoctoral Trainees:

1. Siohban Watkin, Ph.D., postdoctoral fellow (2013)
2. Erla Ornolfsdottir, Ph. D., postdoctoral fellow (2006)
3. Jingrang Lu, Ph.D., postdoctoral fellow (1998-2000)
4. David Bachoon, Ph.D., postdoctoral fellow (1998-2000)
5. Markus Seyfried, Ph.D., postdoctoral fellow, 1999

V. Graduate Committees:

1. Samuel Major, M.S. student, MEES program, 2015-present
2. Daniel Fucich, Ph.D student, MEES program, 2015-present
3. Mengqi Sun, Ph.D student, MEES program, 2015-present
4. David Marsan, Ph.D student, MEES program, 2013-present
5. Yuanchao Zhan, Ph.D students, MEES program, 2011-present
6. Sabrina Klick, Ph.D students, MEES program, 2015-present
7. Detbra Rosales, Ph.D student, MEES Program, University of Maryland 2014-present
8. Kristen Lycett, Ph.D student, MEES Program, University of Maryland 2012-present
9. Sara Rowland, Ph.D candidate, MEES Program, University of Maryland 2012-2016

10. Jan Vicente, Ph.D candidate, MEES Program, University of Maryland 2011-2016
11. Emily Maya Flowers, M.S. student, MEES Program, University of Maryland 2013-2015
12. Fan Zhang, Ph.D candidate, MEES Program, University of Maryland 2011-2015
13. Ryan Powell, Ph.D candidate, MEES Program, University of Maryland 2011-2014
14. Haywood Dail Laughinghouse IV, Ph.D student, MEES Program, University of Maryland 2010-2012.
15. Whitney Dyson, M.S. candidate, MEES program, University of Maryland, 2010-2012.
16. Ammar Hanif, M.S. candidate, MEES Program, University of Maryland, 2010-2013
17. Verena Starke, Ph.D candidate, MEES Program, University of Maryland, 2008-2012
18. Jindong Zan, Ph.D candidate, MEES Program, University of Maryland, 2008-2013
19. Habib Bakht, Ph.D candidate, MEES Program, University of Maryland, 2007-2011
20. Zhouer Lin, Ph.D candidate, MEES Program, University of Maryland, 2005-2011
21. Kui Wang, Ph.D candidate, MEES Program, University of Maryland, 2001-2007
22. Nagla Mohamed, Ph.D candidate, MEES Program, University of Maryland, 2004-2007
23. Naomi Montalvo, Ph.D candidate, Dental School, University of Maryland, 2004- present
24. Sonja Fagervold, Ph.D candidate, MEES Program, University of Maryland, 2002-2007
25. Ed Hilyard, Ph.D candidate, MEES Program, University of Maryland, 2003-present
26. Jacky Kan, Ph.D candidate, MEES Program, University of Maryland, 2001-2006
27. Oliver Peraud, Ph. D candidate, MEES Program, University of Maryland, 2001-2006
28. Davin Henrikson, Ph. D candidate, MEES Program, University of Maryland, 2001-2005
29. Yanmei Shi, M.S., MEES Program, University of Maryland, 2003-2005
30. Qian Wang, M.S., MEES Program, University of Maryland, 2000-2003
31. Jayme Lohr, M.S., MEES Program, University of Maryland, 2000-2003
32. Alison Buchan, Ph.D candidate, School of Marine Program, University of Georgia, 1998-2000.

VI. Visiting Scientists Hosted:

1. Hualong Wang, Visiting Ph.D student, Ocean University of China, September 2016-September 2017.
2. Pervaiz Ali, Visiting Ph.D student, Pakistan, September 7, 2016 – July 19, 2017
3. Dr. Dazhi Wang, Visiting Professor, Xiamen University, April 14- June 20, 2015
4. Zhanxian Xie, Visiting Ph.D student, Xiamen University, May-July, 2014
5. Xiaotian Han, Associate Professor, Institute of Oceanography, CAS, May-October, 2013
6. Dr. Xiuliang Wang, Associate Professor, Institute of Oceanography, CAS, February 2012-January 2013
7. Yongxue Chi, M.S. student, Chiba Institute of Technology, 2012 (3 months)
8. Yiguo Hong, Visiting Professor, The South China Sea Institute of Oceanography, China, 2011-present.
9. Hongpo Dong, Ph.D student, Xiamen University, 2010-2012, algal proteomics (co-host with Al Place)
10. Hui Wang, Ph.D student, Xiamen University, 2010-present, algal associated bacteria (co-host with Russell Hill)
11. Lijuan Long, Visiting Professor, The Institute of Oceanography at South China Sea, China. 2008-2009.
12. Yoanna Eissler, postdoc, Smithsonian Environmental Research Center, 2005-2007. Yoanna visited my lab frequently to learn and conduct molecular work on diatom viruses.

13. Yvan Bettarel, postdoc, Smithsonian Environmental Research Center. 2004-2005. Yvan visited my lab to learn and conduct the molecular study on diatom viruses.
14. Mike Schwalbach, Ph.D student, University of Southern California, 2003 (6 months).
15. Stanley Lau, Ph.D student, Hong Kong University of Science and Technology, 1999 (4 months).
16. Ulrik Geib, Ph.D student, Botany Institute, University of Rostock, Germany, 1998 (3 months).
17. Schoor, A., Assistant Professor, Institute of Oncology, University Greifswald, Germany, 1998 (2 months).

VII. Additional Laboratory Personnel Supervised:

1. Andre Santos, HS student, Reservoir High School, September 2015- present. Area of training: Microalgal Physiology
2. Hope Hyson, HS student from Baltimore Polytechnic Institute, September 2014 to May, 2015. Area of training: Microalgal Physiology
3. Kevin Pagkatipunan, HS student from River Hill HS, September 2013 to May 2014. Area of training: Microalgal Physiology
4. Zheng Liu, Laboratory technician, 2011-2013. Area of training: Microalgal Physiology
5. Hernandez Camacho Charlene Nimzag, undergraduate, Universidad Metropolitana, San Juan, Puerto Rico. Summer 2013 (June 5 to August 8). Area of training: Hematodinium
6. Tamako Anne Garcia, science teacher, Greenbelt Middle School, summer 2013 (July 8-August 1). Area of training: Bacteriophage
7. Enyioha Ike-Amaechi (Victor), Baltimore Polytechnic Institute. Summer 2013 (June 18 - August 10). Area of training: Microalgal Physiology
8. Nicole Rusconi, undergraduate student, University of Maryland, 2013-2015. Area of training: Microalgal Physiology
9. Tomas Richard, Howard County HS, Fall 2011-2012. Area of training: Microalgal Physiology
10. Deja Duncan, Baltimore Polytechnic Institute, Fall 2011-2012. Area of training: Microalgal Physiology
11. Benjamin Lao, Wild Lake HS, Summer 2011. Area of training: Microalgal Physiology
12. Nicole Rusconi, River Hill HS, Summer 2011. Area of training: Microalgal Physiology
13. Robert Luo, Poolesville HS, Spring-present 2011. Area of training: Microalgal Physiology
14. Kenneth Hepburn, Parkdale HS, Biology/Chemistry teacher, Summer 2011. Area of training: Microalgal Physiology
15. Bilal Moiz, Mount Hebron HS, Fall 2010-Spring 2011. Area of training: Microalgal Physiology
16. Daniel Kevin, Howard HS, Fall 2010-Spring 2011. Area of training: Microalgal Physiology
17. Autumn Cadogan, Baltimore Polytechnic Institute, Fall 2010-Spring 2011. Area of training: Microalgal Physiology
18. Kimberly Kreager, Baltimore Polytechnic Institute, Fall 2009 - Spring 2010. Area of training: Viral Ecology
19. Kaitlin Beam, high school junior, Fall 2009 - Spring 2010. Area of training: Virology
20. Shawn Mathew, high school junior. Mount Hebron High School. Fall 2008- Spring 2009. Area of training: Algal Physiology

21. Habibul Bakht, Ph.D student, UMES, Molecular detection of probiotic microbes, summer 2008
22. Verena Starke, Ph.D student, Carnegie Institution of Washington, concentration of aquatic viruses. 2008
23. Marinne Ngure, M.S student, Towson University, Isolation of cyanophages from estuarine environments, and molecular detection of probiotic microbes. 2007-present
24. Folasade Morvan, undergraduate student, University of Maryland College Park. Molecular detection of probiotic microbes. Summer, 2008
25. Kimberly Williams, undergraduate, University of Maryland Eastern Shore, summer, 2006
26. Vadella Ellis-Pope, higher school teacher, summer, 2006
27. Carla Berard, laboratory technician, 2004
28. Judy Sheng, laboratory technician, 2000-2001
29. Ammar Hanif, undergraduate, Baltimore Community College, 2001-2003. Research Project: Seasonal variation of bacteria isolated from Baltimore Inner Harbor
30. Theresa Holland, undergraduate, Towson University, summer, 2002
31. Elizabeth Coburn, Science teacher, Gaithersbury High School, summer, 2002
32. Trang Vu, Grade 12 student, Baltimore Polytechnic Institute, 2002 (6 months)
33. Jennifer Chen, Grade 12 student, Ceder Lane High School, 6 mo. 1998. Jennifer's research project won the first place of 50th Georgia Science and Engineering Fair.

UNIVERSITY AND COMMUNITY SERVICE

1. 2016-present: Co-chair (EMST Foundation), MEES Program Committee
2. 2016-present: Co-chair (EMST Foundation), MEES Graduate Admission Committee
3. 2016-present: Member, UMCES Presidential Scholarship Committee
4. 2013-present: Member, UMCES Graduate Faculty Council
5. 2013-2016: Member, UMCES MEES Curriculum Committee
6. 2013-2016: Member, UMCES Accreditation Committee
7. 2013-present: Member, IMET Space Committee
8. 2013 Member, Faculty Search Committee for two microbial ecology position at HPL
9. 2013-present, Member, MEES Graduate Admission Committee (Oceanography)
10. 2013, Chair, the Reappointment Committee for Eric Schott
11. 2013, Promotion Committee for Ernest Williams
12. 2005-2013, Coordinator, COMB/IMET Seminar Programs
13. 2004-2006, COMB's Equipment Committee
14. 2004-2010, COMB's Radiation Safety Committee
15. 2004-2010, UMBI Biosafety Committee
16. 2007-present, MEES Graduate Admission Committee (MEBB)
17. 2002-present, Coordinator, 4th floor microscopic facility
18. Search Committees for two COMB/UMBI faculty positions
19. Tenure Committee for one COMB faculty