

## CURRICULUM VITAE

**NAME:** LILY Y. YOUNG  
**ADDRESS:** Department of Environmental Sciences      Home:  
306 Foran Hall, 59 Dudley Rd.                      39 Gramercy Park North  
Rutgers University                                      Apt. 4C  
New Brunswick, NJ 08901                              New York, NY 10010  
tel. (848) 932-6383                                      (212) 477-3512  
fax (732) 932-0312                                      (732) 470-7871 (mobile)  
e-mail: Lyoung@aesop.rutgers.edu

### EDUCATION:

1965, B.S. Bacteriology, Cornell University, Ithaca, New York  
1967, M.S. Bacteriology, Cornell University, Ithaca, New York  
1972, Ph.D. Environmental Microbiology, Harvard University, Cambridge, Massachusetts

### ACADEMIC APPOINTMENTS:

1966, Instructor, Department of Bacteriology, Cornell University.  
1967, Research Assistant, Environmental Sciences, Harvard University.  
1969-1971, Teaching Fellow, Environmental Sciences, Harvard University.  
1972-1980, Assistant Professor, Environmental Engineering Program, Department of Civil Engineering, Stanford University, Stanford, California.  
1980-1989, Research Associate Professor, Department of Environmental Medicine and Department of Microbiology, joint appointment, New York University Medical Center.  
1990-1992, Research Professor, Department of Environmental Medicine and Department of Microbiology, joint appointment, New York University Medical Center.  
1992- Professor, Center for Agricultural Molecular Biology and Department of Environmental Sciences, Cook College, Rutgers University, New Brunswick, NJ.  
1998-present, Distinguished Professor, Rutgers Univ.  
1998-2003, Associate Dean for Graduate Studies, School of Environmental and Biological Sciences, Rutgers Univ.  
2001-2008, Chair, Department of Environmental Sciences, Rutgers University  
2008-2014, Dean of International Programs at the School of Environmental and Biological Sciences, Rutgers University  
2014-present, Provost, Rutgers University-New Brunswick, NJ.

### OTHER PROFESSIONAL POSITIONS:

1964 (summer), Research Assistant, Department of Applied Bacteriology, University of Edinburgh, Scotland.  
1969 (summer), Research Assistant, Woods Hole Oceanographic Institution, Woods Hole, MA  
1976 (March-June), Visiting Researcher, Scripps Institution of Oceanography, La Jolla, CA

1973, 1977, 1978, Summer Researcher, Marine Biological Laboratory, Woods Hole, MA

## **MAJOR COMMITTEE ASSIGNMENTS:**

### Advisory and Oversight Committees

- 1985-1988, National Science Foundation Standing Advisory Committee to the Director for Engineering, Division of Critical Engineering Systems (Environmental Engineering).
- 1985, National Science Foundation Evaluation Committee for the Presidential Young Investigator Awards.
- 1985, National Science Foundation Special Advisory Group to the Director for Engineering.
- 1985, Environmental Protection Agency Advisory Committee on Anaerobic Biodegradation and Groundwater Contamination.
- 1986, Advisory and Evaluation Committee to Microbial Process Branch, EPA Environmental Research Laboratory, Athens GA.
- 1989, NSF Science and Engineering Research Centers Review Committee.
- 1989, National Science Foundation Evaluation Committee for the Presidential Young Investigator Awards.
- 1989-1991, National Science Foundation Standing Advisory Committee to the Director of Engineering, Division of Bioengineering and Environmental Systems.
- 1990, National Science Foundation, reviewer for Workshop in HIV in the Environment, Pittsburgh, PA.
- 1990- Environmental Protection Agency, Region II, Scientific and Technical Advisory Committee, NY-NJ Harbor Estuary Program.
- 1991, NSF Science and Technology Centers Site Visit Member.
- 1993-94, National Science Foundation, Advisory Panel for Small Business Innovative Research (SBIR).
- 1993-97, National Academy of Sciences, National Research Council, Committee on Contaminated Marine Sediments.
- 1994-97, Food and Drug Administration, Scientific Advisory Board for the National Center for Toxicology Research.
- 1995, Review Committee for the Dept. Environmental Sciences at the Swiss National Institute of Technology (ETH)
- 1995-present, Steering Committee US-EC Task Force on Environmental Biotechnology
- 1994-96, National Academy of Sciences, National Research Council, Committee on Shipboard Wastes
- 1995-97, NAS, NRC Water Science and Technol Board, Committee on Research Opportunities and Priorities for the EPA
- 1996, NSF Biology directorate SBIR review panel
- 1996-2002, American Society of Microbiology, Chairperson of the National Awards Committee.

1997. New Jersey Sea Grant Workshop on Marine Biotechnology, advisory to NJ Sea Grant.

1997, EPA, Gulf Ecology Division Research Plan, Gulf Breeze, FL, reviewer.

1999, NAS, NRC Biology and Ocean Studies Board Workshop on Marine Biotechnology.

2001, NSF Chemistry directorate, green chemistry review panel.

1999-2008, Strategic Environmental Research & Development Program (SERDP), Dept. Defense, Scientific Advisory Board.

2004, NIEHS SBRP Program Project review panel

2004, NIH, SBIR review panel

2004, ETH, Swiss Federal Institute of Technology, External Review Panel for the Dept. of Environmental Sciences

2004, 2005, 2006. NIEHS conference review panel

2005, External review committee, Environmental Sciences Program, University of Idaho

2005, External review committee, Dept. of Microbiology, University of Massachusetts, Amherst

2005, NSF Earth Science directorate, Biogeoscience Review Panel

2005, SERDP Molecular Tools in Environmental Applications, invited workshop

2007, U.S. National Committee for IUMS, IUPS, IUBMB

2008, Review committee, CRRC, Univ. NH

2009, NSF Environmental Engineering Review Panel

2010, ETH, Swiss Federal Institute of Technology, External Review Panel for the Dept. of Environmental Sciences

2010, American Academy of Microbiology, Colloquium on Microbes and oil spills, October 28, 2010.

2010-present, American Society of Microbiology, Audit Committee

2011-2013, American Academy of Microbiology, Committee on Election

2011-present, American Society of Microbiology, Proctor and Gamble Environmental and Applied Microbiology Awards Committee

2013, NSF Engineering directorate, Environmental Engineering Review Panel

2013, ETH, Swiss Federal Institute of Technology, Zurich, Advisory committee for the Dept. of Environmental Sciences.

#### Program and Symposia Committees

1986, Panelist and Evaluation Committee, Biological and Chemical Treatment of Hazardous Wastes, for a Workshop on Hazardous Wastes Disposal, sponsored by National Science Foundation.

1987, 1991, Discussion Leader, Applied and Environmental Microbiology Gordon Conference.

1988, Program Committee and Program Chair, special Conference on Microbiology of Water and Wastewater, sponsored by International Association of Water Pollution Research and Control, National Science Foundation, American Society for Microbiology.

1989 (June 19-23), Invited speaker and Program Committee member, International Research Workshop on Biotechnology and Biodegradation, Portugal.

1989 (June), Program Committee, International Workshop on Degradative Biotechnologies for Treating Chemical Wastes, Italy.

1989-1990, Program Review Committee for the 1990 International Conference (Kyoto) of the International Association on Water Pollution Research and Control.

1990, 1991, Invited speaker, Symposium on Bioremediation of Hazardous Wastes, sponsored by the Environmental Protection Agency.

1989, 1990, Discussion Leader, Gordon Research Conference, Applied and Environ. Microbiology.

1992, American Academy of Microbiology, invited participant in *Colloquium on Fundamental Research in Bioremediation*.

1992, Organizing Committee, Conference on Anaerobic Dehalogenation and Its Environmental Implications, sponsored by the EPA, August, 1992.

1992-1993, Chairperson and Organizer for the Conference, BIODEGRADATION: Its Role in Reducing Toxicity and Exposure to Environmental Contaminants, sponsored by NIEHS, Research Triangle Park, NC, April 26-28, 1993.

1994, Invited participant, Workshop on Sustainable Development in Urban Areas of the Americas, Santiago, Chile, sponsored by NIH, NSF, NIST, April 4-10, 1994.

1994, Discussion Leader, Gordon Research Conference, Environmental Sciences, Water.

1994, Invited participant, EC-US Task Force on Environmental Biotechnology, Brussels, Belgium, sponsored by ONR, October 17-18, 1994.

1995, Invited speaker, Gordon Research Conference, Applied and Environmental Microbiology.

1996, Invited speaker and participant, EC-US Workshop on Molecular and Biochemical Basis of Biodegradation.

1997, Co-Chair, Gordon Research Conference, Applied and Environmental Microbiology.

1998, Co-Chair, International Symposium on Application of Biotechnology in the Oil Industry, Venezuela National Commission of Biotechnology.

1999, Chair, Gordon Research Conference, Applied and Environmental Microbiology.

2002, Co-Chair, NIEHS conference on Reducing Toxicity and Exposure to Environmental Contaminants through Biodegradation, Asilomar, CA.

2002, Discussion leader, Gordon Research Conference, Inaugural BioInorganic Chemistry.

2002, Program Committee, NIEHS Superfund Basic Research Program Annual Meeting, Nov. 3-6, Tucson, AZ.

2003, Discussion leader, Gordon Research Conference, Applied and Environmental Microbiology.

2004, Discussion leader, Gordon Research Conference, Environmental Bio-Inorganic Chemistry

2005, Program Committee, NIEHS Superfund Basic Research Program Annual Meeting, Jan. 12-13, 2006.

2007-08, U.S. Chair, US-EC Workshop on Environmental Metabolomics, June 15-18, 2008,

Mallorca, Spain

2008, Chair, Bilateral symposium, Chinese Academy of Science Institute of Geochemistry with South China University of Technology and Rutgers University, Environmental Fate of Contaminants, Nov. 9-15, 2008.

University Committees and Service – Rutgers, more than 50 university search, program and advisory committees

- 1993, Search Committee for Occupational Health position  
Graduate Program in Environmental Sciences Strategic Planning Committee  
Program Description Team for Strategic Plan  
Spotlight on Cook Committee  
Environmental Sciences and Engineering Coordination Council
- 1994, Search Committee for Air Pollution Specialist position  
Chair, Search Committee for Environmental Sciences Chair  
Chair, Dean's Committee for Environ. Sci. & Engin. Strategic Plan for Cook/NJAES  
Provost Committee for Biological Sciences Reorganization  
Environmental Sciences and Engineering Coordination Council  
Appointments and Promotion Committee, Cook College
- 1995, Search Committees for two Environmental Sciences positions  
Search Committee for Marine Microbiology position  
Appointments and Promotion Committee, Cook College  
Environmental Sciences and Engineering Coordination Council  
Dept. Environmental Sciences 75th Anniversary Committee  
University President's Strategic Planning Implementation Committee for Environ. Studies
- 1996, Chair, Search Committee for Environmental Sciences position  
Appointments and Promotion Committee, Cook College  
General Honors Program Committee, Cook College  
Executive Council of The Graduate School, Rutgers University  
Bioremediation Seminar Committee
- 1997, Appointments and Promotion Committee, Cook College  
General Honors Program Committee, Cook College  
Executive Council of The Graduate School  
Bioremediation Seminar Committee  
Environmental Sciences and Engineering Coordination Council
- 1998, University Senate, representing Centers, Bureaus and Institutes  
General Honors Program Committee, Cook College  
Executive Council of The Graduate School  
Bioremediation Seminar Committee  
Environmental Sciences and Engineering Coordination Council
- 1999, University Senate, representing Centers, Bureaus and Institutes  
G.H. Cook Honors Committee, Cook College  
Executive Council of The Graduate School  
Chair, Departmental P-II Evaluation Committee  
Cook College Library Committee  
Dept. Environ. Sciences Space Committee

- Dept. Environ. Sciences PEC Committee  
Cook College Steering Committee for Visioning/Strategic Planning
- 2000, G.H. Cook Honors Committee, Cook College  
Chair, Search Committee for Executive Dean and Director of Cook/NJAES  
Cook College Steering Committee for Visioning/Strategic Planning  
Cook College Library Committee  
Committee for M.S. in Biotechnology  
Search Committee for Senior Environmental Engineer position
- 2001, Search Committee for Executive Dean and Director of Cook/NJAES  
Search Committee for Biological Waste Treatment faculty position  
Search Committee for Atmospheric Dynamics faculty position  
Search Committee for Water Quality Specialist  
Search Committee for the Director of the Biotechnology Center  
NSF Advisory Committee to the Assoc. VP for Research and Sponsored Programs  
Environmental Council, Cook College
- 2002, Search Committee for the Director of the Biotechnology Center  
NSF Advisory Committee to the Assoc. VP for Research and Sponsored Programs  
Environmental Council, Cook College  
Academic Standards Review committee, VP for Research  
Departmental committee for P2 promotion
- 2003, Building design committee for the Institute of the Environment  
Building design committee for the extension of Marine and Coastal Science  
Research Advisory Board for the VP of Research  
NSF Advisory Committee to the Assoc VP for Research and Sponsored Programs  
Search Committee for Chemical/Physical Waste Treatment faculty position  
Departmental committee for P2 promotion  
Search committee for the Executive Dean of Cook College
- 2004, Research Advisory Board for the VP of Research  
Search committee for the Executive Dean of Cook College  
Search committee for the VP of Research and Graduate Programs  
Task Force on Undergraduate Education
- 2005, Search committee for the Executive Dean of Cook College  
Search committee for the VP of Research and Graduate Programs  
Task Force on Undergraduate Education
- 2006, Middle States reaccreditation of Rutgers University, Co-Chair Working Group III  
Research Advisory Board for VP of Research  
Honorary Degree committee  
University Promotions and Review Committee  
Search committee for Director of the Institute of Marine and Coastal Sciences
- 2007, Middle States reaccreditation of Rutgers University, Co-Chair Working Group III  
Research Advisory Board for VP of Research  
Honorary Degree committee  
University Promotions and Review Committee  
Search committee for Director of the Institute of Marine and Coastal Sciences

- 2008 University Promotions and Review Committee  
 Research Advisory Board for VP of Research  
 Honorary Degree committee  
 Search committee for cluster hire Dept. Environmental Sciences  
 Dept. Environ. Sciences PEC
- 2009 University Promotions and Review Committee  
 Research Advisory Board for VP of Research  
 Honorary Degree committee  
 Search committee for cluster hire Dept. Environmental Sciences  
 Dept. Environ. Sciences PEC  
 Exec. Dean's cabinet  
 International Advisory Committee, Office of the Exec VP
- 2010 University Promotions and Review Committee  
 Research Advisory Board for VP of Research  
 Dept. Environ. Sciences PEC  
 Exec. Dean's cabinet  
 International Advisory Committee, Office of the Exec VP  
 President's China Strategy Committee  
 Fulbright Scholar Advisor
- 2011 University Promotions and Review Committee  
 Research Advisory Board for VP of Research  
 Exec. Dean's cabinet  
 International Advisory Committee for VP for International Programs  
 President's China Strategy Committee  
 Chair, Search Committee for University Director of China Programs  
 Search Committee for cluster hire, Institute of Marine and Coastal Sciences  
 Presentation at University Trustees Meeting, "Biodegradation of Oil: Lessons Learned from the *Exxon Valdez* to the Deepwater Horizon Incidences and Providing a Globally Relevant Education"  
 Fulbright Scholar Advisor
- 2012 University Promotions and Review Committee  
 Research Advisory Board for VP of Research  
 Exec. Dean's cabinet  
 International Advisory Committee for VP for International Programs  
 China Programs Advisory Committee for the University Director of China Programs  
 Presentation to the RU Foundation Board of Overseers, "International Programs at SEBS"  
 Fulbright Scholar Advisor
- 2013 University Promotions and Review Committee  
 Research Advisory Board for VP of Research  
 Exec. Dean's cabinet  
 International Advisory Committee for VP for International Programs  
 China Programs Advisory Committee for the University Director of China Programs
- 2014 University Promotions and Review Committee  
 Research Advisory Board for VP of Research  
 Exec. Dean's cabinet  
 International Advisory Committee for VP for International Programs  
 China Programs Advisory Committee for the University Director of China Programs

Strategic Planning Coordinating Committee  
Honors College Planning Committee  
International Students Services Committee  
Academic Units Reorganizing Committee  
Fulbright Scholar Advisor

## **EDITORIAL BOARDS AND PEER REVIEW RESPONSIBILITIES:**

1987-1993, Editorial Board, *Applied and Environmental Microbiology*, American Society for Microbiology.

1988-1992, Editorial Board, *Microbial Ecology*.

1989-1990, Editor, special issue on Xenobiotics in the Environment, *Microbial Ecology*.

1997-1999, Editorial Board, *Biodegradation*.

2011- 2013, Editor of Mini-Reviews, *FEMS Microbiology Ecology*

Frequent manuscript reviewer for *Canadian Journal of Microbiology*, *Environmental Toxicology and Chemistry*, *Archives of Environmental Toxicology*, *Environmental Science and Technology* and *Archives of Microbiology*, *Applied and Environmental Microbiology*, *Environmental Microbiology*.

Frequent grant reviewer for the NSF, the DOE, Army Research Office, Sea Grant, EPA.

Frequent reviewer for faculty promotions at other universities

## **PROFESSIONAL SOCIETIES:**

### Memberships

American Society for Microbiology, national and local branch

American Association for the Advancement of Science

American Chemical Society

Society for Environmental Toxicology and Chemistry

Elected as Fellow in the American Academy of Microbiology (1992)

Elected as a Fellow of the American Association for the Advancement of Science (1994)

### Positions Held and Society Activities

1985, Chair and organizer of ASM Seminar on Anaerobic Degradation of Aromatic Compounds.

1986, Co-chair and organizer of ASM Seminar on Biodegradation of Xenobiotic Compounds.

1987-1988, Division Chair-elect, Environmental and Applied Division of ASM.

1988-1989, Division Chair, Environmental and Applied Division of ASM.

1988, Co-chair and organizer of ASM Seminar on Aerobic and Anaerobic Degradation of Chlorinated Compounds, ASM Annual Meeting.

1990, Co-chair and organizer of ASM Seminar on Anaerobic Biodegradation of Alkanes and Aromatics, ASM Annual Meeting.

1993, Co-chair of ASM Seminar on Diversity of Anaerobic Microbial Processes, ASM Ann. Mig.

1994-1996, Division Alternate Councilor, Environmental and Applied Microbiology Division of ASM.



1996-1998, Division Councilor, Environmental and Applied Microbiology Division of ASM.

1996-2002, Chair, ASM Committee on National and International Awards.

2010-2013, American Academy of Microbiology nomination committee

2010-now, ASM Applied and Environmental Microbiology Award Committee

2011-now, ASM Audit Committee

### **MAJOR RESEARCH INTERESTS:**

Microbial physiology and biochemistry - isolation of new species and characterization of novel anaerobic biotransformation/catabolic pathways for aromatic and aliphatic contaminant compounds.

Environmental microbiology - transformation, detoxification and bioavailability of toxic organic chemicals and metals by microorganisms in the environment.

Environmental biotechnology - isolation of novel anaerobes and development of unique strains for biodegradation of toxic organics and treatment of contaminated soils and sediments.

Geomicrobiology - microbial transformations of metals and minerals.

### **HONORS, CITATIONS AND AWARDS**

Elected as a Fellow of the American Academy of Microbiology, 1992.

Elected as a Fellow of the American Association for the Advancement of Science, 1994.

As noted in *THE SCIENTIST*, November 28, 1994, a publication was noted as one of the 10 most highly cited papers in the field of Ecology and Environmental Sciences.

Evans PJ, DT Mang & LY Young. 1991. Degradation of toluene and *m*-xylene and transformation of *o*-xylene by denitrifying enrichment cultures. *Appl Environ Microbiol* 57:450-454.

July, 1996, Invited presentation to the Presidents' Circle of the National Academy of Sciences (Advisory group to NAS President Bruce Albert, comprised of 100 business leaders)- Colloquium on "Water Resources for the 21st Century"; presentation title, "Environmental Biotechnology".

June, 1999, Research Excellence Award, Cook College, NJ Agricultural Experiment Station, Rutgers University.

June 2001, Research Excellence Award, Board of Trustees, Rutgers University.

May 2002, American Society for Microbiology National Proctor and Gamble Award in Applied and Environmental Microbiology, "Anaerobic processes in the Environment and the Biodegradation of Hydrocarbons and Related Compounds", awards lecture. Highest award in this field.

October, 2004, Frank H. Parker Distinguished Lecture, Dept. Civil and Environmental Engineering, Vanderbilt University, Nashville, TN.

August, 2006, recent paper selected for the Journal Highlights section of *Microbe*: Callaghan et al, 2006. A comparison of alkane metabolism under sulfate-reducing conditions among two isolates and a bacterial consortium. *Appl Environ Microbiol* 72:4274-4282.

May, 2009, Theobald Smith Society Waksman Award and Honorary Lectureship, American Society for Microbiology, "Microbes, Methane and Mud".

December 1, 2010, John M. Henske Endowed Lecture (Pres. CEO Olin Corp.) Yale University,  
“Biodegradation of Oil, from the Exxon Valdez to the Deepwater Horizon”

March 25, 2012, American Chemical Society Special Symposium in Honor of Martin Reinhard,  
“Hydrocarbon Degradation Without Benefit of Oxygen: Original Microbial Chemistry”

April 10, 2015, Oliver H. Smith Memorial Lecture, Marquette University, Milwaukee, WI  
“Biodegradation of Oil, from the Exxon Valdez to the Deepwater Horizon”

## **GRANTS RECEIVED IN THE LAST 15 YEARS:**

Previously Held Grants – 38 total

Active Grants – 2 total

### Summary

Forty grants have been awarded over the last 15 years, on which I served as P.I. on 24, co-P.I. on 11, and project P.I. on 5. The total funds obtained through these grants amount to more than \$18M.

## **TEACHING EXPERIENCE:**

### Courses that I developed and taught:

1. Environmental and Aquatic Microbiology: 3 credit, 1972-1979, Stanford University.
2. Laboratory in Environmental and Aquatic Microbiology: 3 credit, laboratory course, 1972-1979, Stanford University.
3. Experimental Projects in Environmental Microbiology: 3 credit, graduate level, 1975-1976, Stanford University.
4. Environmental Biology: 3 credit, 1973-1979, Stanford University.
5. Microbial Ecology Laboratory: 3 credit, graduate level, 1977-1979, Stanford University.
6. Special Topics in Microbiology: 2 credit, graduate level, 1974-1975.
7. Reading Electives in Medical Microbiology: readings on water pollution and public health, 1987-1988, NYU Medical Center.
8. Biological Fate of Pollutants in the Environ., 1994-, Dept. Env. Sciences, Rutgers Univ.
9. Seminar in Presentation Skills, 1997, Dept. Environmental Sciences, Rutgers Univ.
10. Biological Principles in Environmental Sciences, 1998-, Dept. Environ. Sciences, Rutgers Univ. (this is a new course developed and taught by Drs. Kukor, Strom and myself)
11. US-EC Advanced Short Course on Theoretical and Practical Course on Molecular Approaches for in-situ Biodegradation, an international course supported by the European Commission and US federal agencies (course was led by Drs. Kukor and Zylstra; I was instrumental in bringing the course to Rutgers and was a lecturer).
12. Environmental and Pollution Microbiology, 1998-present, Dept. Environ. Sciences, Rutgers Univ. (this is a new course developed and taught by a colleague and myself).
13. First Year Seminar, 2007-2010, What does biology have to do with global climate change?

### Courses that I taught as part of a team:

1. Aquatic Biology: Course lecturer and participant, 1985, NYU, Dept. Biology.
2. Medical Microbiology: Course lecturer, 1986-1987, NYU Medical Center.
3. Laboratory in Medical Microbiology: Laboratory section head, 1986-1987, NYU Medical Center.
4. Medical Microbiology: Section Head for laboratories and conferences, 1988-1992 NYU Medical Center.
5. Conferences in Medical Microbiology: Conference instructor, 1986-1992.
6. Co-author of a new Medical Microbiology Laboratory Manual, 1988, NYU Medical Center.
7. Perspectives in Agriculture and the Environment, 1993-1997, Cook College, Rutgers Univ.
8. Biological Principles of Environmental Sciences, 1994-2001, Cook College, Rutgers Univ.
9. Energy and Climate Change, 2008-present, SAS Signature Course, Rutgers Univ.

### **GRADUATES AND POST-GRADUATES**

1. Joseph Healy, graduate student, Ph.D., 1973-1978. EPA scientist.
2. Ronald W. Harvey, graduate student, Ph.D., 1974-1978. USGS research scientist.
3. Patricia J. Colberg, graduate student Ph.D., 1974-1979. Faculty Univ. Wyoming.
4. Owen O'Connor, graduate student, Ph.D., 1985-1994. Biodegradation of hazardous phenols and the isolation of a unique pure culture. M.D.
5. Inge Bossert, Ph.D., 1983-1988, post-doctoral research scientist. Anaerobic p-cresol degradation.
6. Max M. Haggblom, Ph.D., 1988-1992, post-doctoral research scientist. Microbial dechlorination mechanisms and anaerobic dechlorination in sediments. Faculty Rutgers University.
7. Patrick Evans, Ph.D., 1988-1991, post-doctoral research scientist. Anaerobic metabolism of toxic methylbenzenes and microbially mediated mechanisms of degradation. Camp Dresser McKee consulting
8. Alfredo Alder, Ph.D., 1989-1990, post-doctoral research scientist. Anaerobic PCB metabolism and dechlorination by sediment microorganisms. EAWAG research scientist, Switzerland.
9. Rosana M. Oliveira, M.S., 1990-1992, Dept. Environmental Medicine. Reduction of chromium by anaerobic consortia from estuarine sediment.
10. Peter Coschigano, Ph.D., 1992-1996, post-doctoral research scientist. Molecular elucidation of the anaerobic toluene pathway. Faculty Ohio University.
11. Junko Kazumi, Ph.D., 1991-1997, post-doctoral research scientist. Anaerobic in-situ processes affecting biodegradation of fuel components. Assoc. Dean Engineering, Univ. Miami.
12. Craig Phelps, graduate student, 1992-1998. Anaerobic benzene degradation by marine microorganisms. Research scientist Rutgers University.
13. Hai-Ying Zhuang, M.S., 1992-1994. Sorption of BTX components onto microbial cells. Industry.
14. Paula Van Schie, Ph.D., 1993-1997. Physiology and taxonomy of phenol-degrading denitrifying bacteria. Science writer, Holland.

15. Sung-Chan Choi, Ph.D., post-doctoral research scientist, 1993-1996. Microbial detoxification and reduction of chromium. Faculty Hallym University, Korea.
16. Chi-Ming So, graduate student, 1994-1999. Anaerobic degradation of alkane fuel components. Environmental consulting, Hong Kong.
17. Sonia Vela, graduate student, M.S., 1994-1997. Biodegradation of aromatic and polycyclic hydrocarbons by rhizobial species. Environmental consulting, Madrid, Spain.
18. Subuntith Makekhayai 1996-2000. Metabolism of parathion and metabolites under anaerobic conditions. Faculty Burapha University, Thailand.
19. Al Boyle, 1995-1999. Anaerobic biodegradation of pesticides in near shore sediments. Researcher, Bristol-Meyer-Squibb.
20. Xiaoming Zhang, Ph.D., 1996-1998 post-doctoral research scientist. Biodegradation of PAH compounds by anaerobic microorganisms.
21. Monica Togna, Ph.D., 1996-2000, post-doctoral research scientist. In-situ fate of PAHs in anoxic sediments. Faculty, DeVry University.
22. Wenhsin Liang, 1998-2002 graduate student. Bioavailability of contaminants from sediment. Research scientist, Taiwan.
23. Craig Phelps, Ph.D., 1998-2000, post-doctoral research scientist. Anaerobic microbial metabolites as indicators of in-situ bioremediation. Research scientist, Rutgers University/
24. Elise R. Sullivan, Ph.D., 1999-2001, post-doctoral research scientist. Anaerobic biodegradation of PAH and related compounds. Faculty University of New Hampshire.
25. Amy Callaghan, 1999- 2006, graduate student. Anaerobic alkane biodegradation.
26. David Scala, Ph.D., 1999-2006, post-doctoral research scientist. Microbial iron reduction and nutrient competition..
27. Nicholas Landau, 1998-2000, graduate student (primary advisor, R. Bartha, retired).
28. Meghan Tierney, 2000-2007, graduate student. Anaerobic biodegradation of PAH.
29. Kateri Finger, 2000-2003, M.S. graduate student. Anaerobic biogeochemistry of chromium.
30. Anbo Liu, Ph.D., 2000-2003, post-doctoral research scientist. Biogeochemistry of arsenic.
31. Craig Phelps, Ph.D., 2000-present, Research Associate. Anaerobic biomarkers for in-situ biodegradation.
32. Elizabeth Garcia, 2000-2001, visiting scientist/graduate student from Central University of Caracas, Venezuela. Microbiology of arsenic transformation.
33. Dr. Stephano Fedi, 6/2001-10/2001, Univ. Bologna, visiting scholar. Community diversity of complex microbial ecosystems.
34. Danielle Rhine, Ph.D., 2001-present. Post-doctoral research scientist. Anaerobic biogeochemistry of chromium and arsenic.
35. Dr. Isora Ranson, Ph.D., 6/2002-10/2002. PDVSA Intevp, Venezuela, visiting scientist. Anaerobic biodegradation of petroleum.
36. Giulio Zanaroli, 10/2002-4/2003, visiting graduate student from University of Bologna, Italy.

37. Jennifer Lemke, summer, 2003, NJ middle school teacher, developed 6 teaching modules in microbial ecology and biocomplexity.
38. John Scrivo, 2003-2005 M.S. student. Effect of nitrogen source on microbial competition.
39. Erin Gallagher, 2003-present, graduate student. Biodegradation of nitroaromatic chemicals.
40. Jose Perez-Jimenez, Ph.D., 2003-2005. Post-doctoral researcher. Arsenic respiratory reductase.
41. Amita Oka, 2004-2009, graduate student. Anaerobic benzene degradation
42. Giulio Zanaroli, Ph.D., 3/05-9/05, visiting post-doctoral researcher from University of Bologna, Italy.
43. Elizabeth Garcia, Ph.D., 2004-2010. Post-doctoral research scientist. Biogeochemistry of arsenic.
44. Adam Mumford, 2005-2012, graduate student. Anaerobic arsenic reduction in sediment and groundwater.
45. Alexandra Walczak, 2007- present, graduate student, Control of metals release in the environment.
46. Abigail Porter, 2007-present, Post-doctoral research scientist, Anaerobic hydrocarbon biodegradation by hydrothermal vent organisms.
47. Sarah Wolfson, 2011-present, graduate student, Cresote induced hydrocarbon degradation in marine environments.
48. Jennifer Kist, 2013-present, Post-doctoral research scientist, Anaerobic biodegradation of aniline and dye waste in groundwater.

**INVITED SEMINARS AND SYMPOSIA** (a selection from more than 170):

Harvard University  
 University of Illinois  
 University of Warwick, England  
 EAWAG (Swiss Federal Institute of Water Pollution)  
 University of Zurich  
 US Geological Survey in Denver, Colorado  
 General Electric Research and Development  
 EPA. Athens, GA  
 Rutgers University, 1989  
 University of Alberta, 1989  
 Theobald Smith Society, New Jersey, 1989  
 George M. Cross Lecture in Biology, Univ. Oklahoma, 1989  
 Workshop on Biodegradation, EPA. Feb, 1990  
 Biodegradation of Hazardous Wastes, Utah State Univ, April, 1990  
 University of Minnesota, Dec, 1991  
 Pacific Basin Conference on Hazardous Waste, April, 1992  
 Annual Mendel Lecture, St. Peters College, NJ, April, 1992  
 University of Cincinnati, October, 1992  
 University of Michigan, November, 1992  
 Michigan State University, November, 1992

Dupont Research and Development, Delaware, 1993  
Texaco Research and Development, Beacon, NY, 1993  
ASM Seminar on Biodegradation in Estuarine and Marine Sediments, 1993.  
American Chemical Society, 1993.  
Office of Naval Research, Sept. 1993.  
Sustainable Development of Urban Areas in the Americas, Santiago, Chile, April, 1994.  
Univ. Iowa, 1994.  
Princeton University, 1994, 1997.  
City College of New York, 1994.  
Brussels, Belgium, 1995  
Max Planck Institute, Bremen, Germany, 1995  
Cornell University, 1995.  
Univ. Illinois, Marvin Bryant Symposium, 1995  
Manhattan College, 1996  
Univ. Connecticut, 1996  
Granada, Spain (ONR), 1996  
Univ. New Hampshire, 1996  
Princeton University, 1997  
Smith College, 1997  
Univ. California, Berkeley, 1997  
Univ. Illinois, 1998  
Caracas, Venezuela, 1998  
Marine Biological Laboratory, 1999  
National Research Council, 1999  
Batelle Meeting, San Diego, 1999  
SETAC Meeting, Philadelphia, 1999  
NYU Medical Center, 1999  
Gordon Research Conference-Environmental Sciences Water , 2000  
Asilomar EPA Conference, 2000  
University of Bologna, Italy, 2000  
Federated Biological Societies of Italy, 2000  
AEHS Conference on Contaminated Soils, 2002  
ASM Divisional Symposium, 2002 Recent Developments in Anaerobic Hydrocarbon Degradation,  
presentation“Anaerobic Metabolism of Naphthalene and Alkanes”.  
NIEHS Biodegradation Symposium, Asilomar, CA 2002  
2002, Invited discussion leader, Gordon Research Conference, Inaugural BioInorganic Chemistry.  
9<sup>th</sup> International Symposium, Genetics of Industrial Microorganisms, Gyeonju, South Korea, 2002  
Special Symposium, Biogeochemistry, Univ. Conn., Nov. 2002.  
University of Michigan, Dept. Civil and Environmental Engineering, March 2003  
2003, Invited discussion leader, Gordon Research Conference, Applied and Environmental  
Microbiol.  
University of Delaware, Dept. Civil and Environmental Engineering, Dec 2003.  
Cornell University, Dept. Microbiology, March 2004.  
University of Idaho, Dept. Microbiology, April 2004.  
University of Caracas, Venezuela, April 2004.  
University of Toronto, June 2004.  
Vanderbilt University, October 2004.  
Cornell University, March, 2004.

University of Bologna, University of Genoa, summer course on Biodegradation, Sept. 12-15, 2005.  
Keynote Lecture, Water-Rock Interaction, 12<sup>th</sup> Symposium, August 1-5, 2007, Kunming, China  
Invited Lecture, Hong Kong Polytechnic University, July 30, 2007  
Invited Lecture, Symposium, Univ. Turabo, Puerto Rico, March 18, 2008  
Invited speaker, Bioremediation short course, University of Helsinki, Dept. Environ. Ecol.  
Toxicology, October 11-16, 2009.  
Invited Lecture, Univ. Minnesota, Dept. Civil Environ. Engineering, Nov. 20, 2009.  
Invited Lecture, Georgia State Univ. Dept. Microbiology, April 29, 2010.  
Invited Lecture, Yale University, December 1, 2010.  
Invited Lecture, Rutgers University Microbiology Symposium, February, 2011.  
Invited Lecture, Tianjin University, School of Environmental Engineering and Science, Jan. 2012  
Invited Lecture, South China Univ. Technology, Guangzhou, Sch. Environ. Engineering and  
Science, Nov. 2012.  
Invited Lecture, University of Toronto, 2013  
Invited Lecture, Chinese Academy of Science, Institute of Soil Science, 2014  
Invited Lecture, Duquesne University, Pittsburgh, PA, 2014  
Invited Lecture, Marquette University, Milwaukee, WI, 2015

### **MAJOR ADMINISTRATIVE RESPONSIBILITIES:**

Director of active research program in environmental microbiology and biodegradation in the Biotechnology Center for Agriculture and the Environment (Biotech) and Department of Environmental Sciences currently with 10 full and part-time personnel.

Associate Dean for Graduate Programs at Cook College (established the position, 1998-2003).

Chair of the Department of Environmental Sciences (2001-2008).

Dean for International Programs for the School of Environmental and Biological Sciences (established the position and the office, 2008-present)

Provost, Rutgers University-New Brunswick

### **PUBLICATIONS:**

#### Peer Reviewed Papers

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#### **ABSTRACTS AND PRESENTATIONS (LAST 18 YEARS ONLY)**

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