

## CURRICULUM VITAE

# LISA ANN RODENBURG

formerly Totten  
Professor

Department of Environmental Sciences  
14 College Farm Road, Room 231  
Rutgers University, New Brunswick, NJ 08901-8551  
Web of Knowledge/ResearcherID: L-6882-2015

Tele: (848) 932-5774  
Fax: (732) 932-8644  
email: [rodenburg@envsci.rutgers.edu](mailto:rodenburg@envsci.rutgers.edu)  
[Google Scholar Profile](#)

### EDUCATION

**Ph.D.** 1999, The Johns Hopkins University, Department of Geography and Environmental Engineering

**B.A.** 1991, Wittenberg University, Springfield, OH, Chemistry

### PROFESSIONAL EXPERIENCE

2017-present Professor, Rutgers University, Department of Environmental Sciences  
2012-present Undergraduate Program Director, Environmental Science (~140 students)  
2010-2017 Associate Professor, Rutgers University, Department of Environmental Sciences  
2004-2010 Assistant Professor, Rutgers University, Department of Environmental Sciences  
2002-2004 Assistant Research Professor, Rutgers University, Department of Environmental Sciences  
2001-2002 Laboratory Researcher I, Rutgers University, Department of Environmental Sciences  
1998-2001 Camille and Henry Dreyfus Post-Doctoral Fellow in Environmental Chemistry, Rutgers University, Department of Environmental Sciences  
1991-1993 Quality Assurance Chemist, Hoechst-Roussel Pharmaceuticals Inc., Somerville, NJ

### RESEARCH INTERESTS

Fate of anthropogenic chemicals, particularly PCBs and other semivolatile organic contaminants (SOCs), in water, air, sediments, and biota. Source apportionment of contaminants, management and analysis of large data sets.

### HONORS AND AWARDS

Excellence in Review Award from *Environmental Science and Technology* 2014  
Camille and Henry Dreyfus Foundation Post-Doctoral Fellowship in Environmental Chemistry  
ACS Environmental Division Graduate Student Paper Award 1998  
ACS Environmental Division Graduate Student Award 1998  
Graduate Student Fellowship, National Science Foundation, 1994-1997  
Dean's Fellowship, Johns Hopkins University, Whiting School of Engineering, 1993, 1998  
National Merit Scholar, 1987-1991  
Graduated Summa Cum Laude from Wittenberg University

## PROFESSIONAL AFFILIATIONS

American Chemical Society, Environmental Chemistry Division (ACS)

Society of Environmental Toxicology and Chemistry (SETAC)

Association of Environmental Engineering and Science Professors (AEESP)

Association for Women in Science (AWIS)

Environmental Sciences Affiliate of the New York Academy of Sciences

## EDUCATIONAL ACTIVITIES

### Primary teaching

|                |   |            |
|----------------|---|------------|
| 2015-present   | 11:375:197 <i>Environmental Science Literacy</i> (house course for the Environmental Science LLC, Douglass Project for women in STEM) | Instructor |
| 2011- present  | 11:375:340 <i>Environmental Applications of Organic Chemistry</i>   | Instructor |
| 2001- 2013     | 11:375:310 <i>Analytical Environmental Chemistry Laboratory</i>   | Instructor |
| 2000 - present | 16:375:522 <i>Environmental Organic Chemistry</i>   | Instructor |

### Other teaching

|              |   |                     |
|--------------|---|---------------------|
| 2010-present | 01:556:130 Introduction to Scientific Research (ISR)  | Research mentor     |
| 2012         | 11:015:103 <i>Portals to Academic Study Success</i>   | Instructor          |
| 2010-2011    | 11:375:432 <i>Readings in Environmental Science</i> (house course for the Douglass Project for women in STEM) | Co-instructor (50%) |
| 2009         | 16:375:540 <i>Atmospheric Chemistry</i>   | Instructor          |
| 2007         | 11:375:423/523 <i>Environmental Fate And Transport</i>  | Co-instructor (50%) |
| 2006         | 375:454 <i>Soil Biological Processes</i> , cross-listed with 375:573 <i>Soil Ecosystem Processes</i>          | Co-instructor (40%) |
| 2005 – 2006  | 01:160:200 <i>Introduction to Research in Chemistry</i>   | Research mentor     |
| 1998         | <i>Chemistry of Environmental Issues</i> (John Hopkins University)  | Teaching assistant  |

## MEDIA COVERAGE

ABC News Good Morning America: [Is the Color Yellow Dangerous?](#) (interview about PCBs in pigments). 2/23/2014

Scientific American: [“Yellow Pigments in Clothing and Paper Contain Long-Banned Chemical”](#) 2/20/2014

Yahoo.com: [“PCBs banned for decades but still lurking in some yellow products”](#) 2/25/2014

Newsmax.com [“Many Yellow Items Still Contain Banned PCB Chemical, Study Says.”](#) 2/21/2014

Environmental Health News: [“Yellow pigments in clothing, paper contain long-banned PCB.”](#) 2/20/2014

Food Packaging Forum: [“PCB-11 detected in clothing and paper samples.”](#) 2/21/2014

Environmental Health Perspectives: [“Nonlegacy PCBs: Pigment Manufacturing By-Products Get a Second Look.”](#) Volume 121, Issue 3, Pages A87-A93. March 2013.

## **IMPACTS**

The State of Washington in 2013 passed legislation ([bill 6086](#)) that requires the state to purchase only products that do not contain PCBs. This legislation is aimed in large part at PCBs in pigments, and my work in this area raised awareness and indirectly led to this legislation.

## **SERVICE**

### **Mentoring**

Mentoring committee member for Benjamin Lintner (Assistant Professor) and Jeffra Schaefer (Assistant Research Professor) in the Department of Environmental Science, Rutgers Founder, *Beautiful Untenured Female Faculty* (BUFF), a peer-to-peer networking group for female faculty at SEBS

Working with High School students on various projects for science fairs, including the Partners in Science program (Liberty Science Center); North Jersey Regional Science Fair; a competition at Monmouth University; and the Young Science Achievers Program. Eleven students mentored so far (2006-present)

Mentored more than 50 undergraduate interns

### **Professional Societies**

Session Chair (with Nicole Fahrenfeld). “Advances in Understanding PPCP Fate in Wastewater Collection & Treatment Systems.” American Chemical Society 252<sup>nd</sup> National Meeting, August 21-25, 2016, Philadelphia, PA.

Member of the 2005 SETAC North America Annual Meeting Program Committee

Session Chair (with Miriam Diamond). “Urban Contaminants: Sources, Composition, Fate from a Multimedia Perspective.” SETAC North America 28th Annual Meeting, November 11-15, 2007, Milwaukee, WI.

Session Chair (with DE Fennell) “Fate of Persistent Organic Pollutants in Urban Systems.” Division of Environmental Chemistry, 234th American Chemical Society (ACS) National Meeting, August 19-23, 2007, Boston, MA.

### **University**

Search committee, TT appointment in Environmental Microbiology, 2015-2016

Strategic Planning Committee for Douglass Residential College, 2015

Douglass Project STEM Summer Stipend selection committee, 2015

Undergraduate Program Director, Environmental Sciences, 2012-present

Department of Environmental Sciences, Equipment Committee, 2014-2017

Graduate Program in Environmental Sciences, Admissions Committee, 2012-2015

New Brunswick Faculty Council, 2009-2012

Search committee, broad faculty announcement in Environmental Sciences, 2008-2010

Chair, Environmental Sciences Graduate Program Curriculum Committee, 2006-2009

Department of Environmental Sciences Space Committee, 2006-2009

Dean’s Ad-Hoc Committee on Childcare, 2005

### **National Panels**

Member, Science and Technical Advisory Committee (STAC), New York/New Jersey Harbor & Estuary Program. 2017-present

Science Advisor, *Made Safe* (<http://madesafe.org/>), formerly *Non-Toxic Certified*, 2015-present  
Reviewer - Green-Duwamish River Watershed PCB Congener Study: Phase 1, 2015  
Advisor to the Spokane River Regional Toxics Taskforce, Spokane, WA, 2012-present  
Served as an expert witness for the State of Washington (Department of Ecology) at the August 2012 meeting of the Environmental Council of States. I presented a short lecture on the problem of inadvertent production of PCBs in pigments.  
Member of Expert Panel advising the Delaware River Basin Commission on establishment of a TMDL for PCBs in the Delaware River 2001-2009

### Other

Proposal reviewer for the Hudson River Foundation: Hudson River Fund and Mark Bain Graduate Fellowships

Reviewer for the Arctic Monitoring and Assessment Programme (AMAP) review of Non-Aroclor and Byproduct PCBs 2016

Faculty Advisor, Futurology Club, 2015-present

Author of Wikipedia entry on [Diarylide Pigment](#)

Proposal reviewer, National Science Foundation, Petroleum Research Fund, and U.S. Civilian Research and Development Foundation (CRDF).

Reviewer for *Environmental Science and Technology*, *Atmospheric Environment*, *Environmental Engineering and Science*, *Journal of the Air & Waste Management Association*, *Industrial and Engineering Chemistry Research*, *Water Air and Soil Pollution*, and *Science of the Total Environment*.

Poster session organizer, Gordon Conference on Environmental Sciences: Water, 2000.

### PUBLICATIONS

**Peer-Reviewed** (\* - author is a current or former student of mine; § work performed as an undergraduate intern)

1. Rodenburg, LA; Dewani, Y; Haggblom, MM; Kerkhof, LJ; Fennell, DE. Forensic Analysis of Polychlorinated Dibenzo-p-Dioxin and -Furan Fingerprints to Elucidate Dechlorination Pathways. *Environ. Sci. Technol.* **2017**, *51*, 10485-10493.
2. Praipipat, P; Meng, QY; Miskewitz, RJ; **Rodenburg, LA**. Source Apportionment of Atmospheric Polychlorinated Biphenyls in New Jersey 1997- 2011. *Environ. Sci. Technol.* **2017**, *51*, 1195-1202.
3. **Rodenburg, LA**; Ralston, DK. Historical sources of polychlorinated biphenyls to the sediment of the New York/New Jersey Harbor. *Chemosphere.* **2017**, *169*, 450-459.
4. **Rodenburg, LA**; Krumins, V; Curran, JC. Microbial dechlorination of polychlorinated biphenyls, dibenzo-p-dioxins, and -furans at the Portland Harbor superfund site, Oregon, USA. *Environ. Sci. Technol.* **2015** *49*, 7227–7235.
5. **Rodenburg, LA**; Guo J; Christie, RM. Polychlorinated biphenyls (PCBs) in pigments: inadvertent production and environmental significance. *Coloration Technology.* **2015**, *131*, 353–369. **Feature Article**

6. **Rodenburg, LA**; Delistraty, D; Meng, Q. Polychlorinated biphenyl congener patterns in fish near the Hanford Site (Washington State, USA). *Environ. Sci. Technol.* **2015**, *49*, 2767–2775.
7. Xiong, Y; Krogmann, U; Mainelis, G; **Rodenburg, LA**; Andrews, CJ. Indoor air quality in green buildings: A case-study in a residential high-rise building in the northeastern United States. *Journal Of Environmental Science And Health, Part A.* **2014**, *50(3)*, 225-242.
8. Guo, J\*; Capozzi, SL\*; Kraeutler, TM\*§; Rodenburg, LA. Global distribution and local impacts of inadvertently generated polychlorinated biphenyls in pigments. *Environ. Sci. Technol.* **2014**, *48*, 8573-8580.
9. Zhen, H.; Du, S\*; **Rodenburg, L.A.**; Mainelis, G.; Fennel, D.E. Reductive Dechlorination of 1,2,3,7,8-Pentachlorodibenzo-p-dioxin and Aroclor 1260, 1254 and 1242 by a Mixed Culture Containing *Dehalococcoides mccartyi* strain 195. *Water Research.* **2014**, *52*, 51-62.
10. **Rodenburg, LA**; Meng, Q; Yee, D.; Greenfield, BK. Evidence for photolytic and microbial debromination of brominated diphenyl ether flame retardants in San Francisco Bay sediment. *Chemosphere.* **2014**, *106*, 36-43.
11. Praipipat, P.\*; **Rodenburg, L.A.**; Cavallo, G.J. Source Apportionment of Polychlorinated Biphenyls in the sediments of the Delaware River. *Environ. Sci. Technol.* **2013**, *47* (9), 4277–4283.
12. **Rodenburg, L.A.**; Meng, Q. Source Apportionment of Polychlorinated Biphenyls in Chicago Air from 1996-2007. *Environ. Sci. Technol.* **2013**, *47* (8), 3774–3780.
13. Liu, H.; Park, J-W.; Fennell, D. E.; **Rodenburg, L. A.**; Verta, M.; Häggblom, M.M. Microbial Reductive Dechlorination of Weathered Polychlorinated Dibenzofurans in Kymijoki Sediment Mesocosms. *Chemosphere.* **2013**, *92(2)*, 212-221.
14. Sandy, A.L.\*; Guo, J.\*; Miskewitz, R.J.; McGillis, W.R.; **Rodenburg, L.A.** Mass transfer coefficients for volatilization of polychlorinated biphenyls from the Hudson River, New York measured using micrometeorological approaches. *Chemosphere.* **2012**, *90(5)*, 1637-1643.
15. **Rodenburg, L.A.**; Du, S.\*; Lui, H.; Guo, J.\*; Oseagulu, N.\* §; and Fennell, D. E. Evidence for dechlorination of polychlorinated biphenyls and polychlorinated dibenzo-p-dioxins and –furans in wastewater collection systems in the New York metropolitan area. *Environ. Sci. Technol.* **2012**, *46*, 6612–6620.
16. Sandy, A.L.\*; Guo, J.\*; Miskewitz, R.J.; McGillis, W.R.; **Rodenburg, L.A.** Fluxes of polychlorinated biphenyls volatilizing from the Hudson River, New York measured using micrometeorological approaches. *Environ. Sci. Technol.* **2012**, *46*, 885-891.
17. **Rodenburg, L.A.**; Du, S.\*; Xiao, B.; Fennell, D.E. Source Apportionment of Polychlorinated Biphenyls in the New York/New Jersey Harbor. *Chemosphere.* **2011**, *83*, 792–798.
18. Park, J-W.; Krumins, V.; Kjellerup, B.V.; Fennell, D. E.; **Rodenburg, L.A.**; Sowers, K.R.; Kerkhof, L.J.; Häggblom, M. M. The effect of co-substrate activation on indigenous and bioaugmented PCB dechlorinating bacterial communities in sediment microcosms. *Appl. Microbiol. Biotechnol.* **2011**, *89*, 2005-2017.
19. **Rodenburg, L.A.**; Fennell, D.E.; Du, S.\*; Cavallo, G.J. Evidence for Widespread Dechlorination of Polychlorinated Biphenyls in Groundwater, Landfills, And Wastewater Collection Systems. *Environ. Sci. Technol.* **2010**, *44*, 7534-7540.

20. Cwiertny, D.; Arnold, W.A.; Kohn, T.; **Rodenburg, L.A.**; Roberts, A.L. Reactivity of Alkyl Polyhalides toward Granular Iron: Development of QSARs and Reactivity Cross Correlations for Reductive Dehalogenation. *Environ. Sci. Technol.* **2010**, *44*, 7928–7936.
21. **Rodenburg, L.A.**; Valle, S. N.; Panero, M. A.; Munoz, G. R.; Shor, L. M. Mass Balances on Selected Polycyclic Aromatic Hydrocarbons (PAHs) in the New York/New Jersey Harbor. *Journal of Environmental Quality.* **2010**, *39*, 642–653.
22. **Rodenburg, L.A.**; Guo\*, J.; Du\*, S.; Cavallo, G.J. Evidence for Unique and Ubiquitous Environmental Sources of 3,3'-dichlorobiphenyl (PCB 11). *Environ. Sci. Technol.* **2010**, *44*, 2816–2821. DOI: 10.1021/es901155h
23. Krumins, V.; Park, J.W.; Son, E.K.; **Rodenburg, L.A.**; Kerkhof, L.J.; Haggblom, M.M.; Fennell, D.E. PCB Dechlorination Enhancement in Anacostia River Sediment. *Water Research.* **2009**, *43* (18), 4549–4558.
24. Du\*, S; Wall\*, SJ; Cacia\*<sup>§</sup>, D; **Rodenburg, LA.** Passive Air Sampling for Polychlorinated Biphenyls in the Philadelphia, USA Metropolitan Area. *Environ. Sci. Technol.* **2009**, *43*, 1287–1292.
25. Du\*, S; Belton, T. J.; **Rodenburg, L.A.** Source Apportionment of PCBs in the Tidal Delaware River. *Environ. Sci. Technol.* **2008**, *42*, 4044–4051.
26. Zarnadze\*, A.; **Rodenburg, L.A.** Water Column Concentrations and Partitioning of Polybrominated Diphenyl Ethers in the New York/New Jersey Harbor, USA. *Environmental Toxicology and Chemistry.* **2008**, *27* (8), 1636–1642. DOI: 10.1897/07-619
27. Polidori, A.; Turpin, B. J.; Davidson, C. I.; **Rodenburg, L. A.**; Maimone, F. Organic PM<sub>2.5</sub>: Fractionation By Polarity, FTIR Spectroscopy, And OM/OC Ratio For The Pittsburgh Aerosol. *Aerosol Science and Technology.* **2008**, *42*(3), 233–246.
28. Yan, S.; **Rodenburg, L. A.**; Dachs, J.; Eisenreich, S. J. Seasonal air-water exchange fluxes of polychlorinated biphenyls in the Hudson River Estuary. *Environmental Pollution.* **2008**, *152*, 443–451. doi:10.1016/j.envpol.2007.06.074
29. Du\*, S.; **Rodenburg, L. A.** Source Identification of Atmospheric PCBs in Philadelphia/Camden Using Positive Matrix Factorization Followed by the Potential Source Contribution Function. *Atmospheric Environment.* **2007**, *41*, 8596–8608.
30. Asher, B. J.; Wong, C. S.; **Rodenburg, L. A.** Chiral Source Apportionment of Polychlorinated Biphenyls To The Hudson River Estuary Atmosphere And Food Web. *Environ. Sci. Technol.* **2007**, *41*, 6163–6169.
31. Rowe\*, A. A.; **Totten, L. A.**; Cavallo, G. J.; Yagecic, J. R. Watershed Processing of Atmospheric Polychlorinated Biphenyl Inputs. *Environ. Sci. Technol.* **2007**, *41*, 2331–2337.
32. Rowe\*, A. A.; **Totten, L. A.**; Xie, M.; Fikslin, T. J.; Eisenreich, S. J. Air-water exchange of polychlorinated biphenyls in the Delaware River. *Environ. Sci. Technol.* **2007**, *41*, 1152–1158.
33. **Totten, L. A.**; Stenchikov, G. L.; Gigliotti, C. L.; Lahoti, N.; Eisenreich, S.J. Measurement and Modeling of Urban Atmospheric PCB Concentrations On A Small (8 km) Spatial Scale. *Atmospheric Environment.* **2006**, *40* (40), 7940–7952.
34. Yi, S-M; **Totten, L.A.**; Thota\*, S.; Yan, S.; Offenber, J. H.; Eisenreich, S.J.; Graney, J; Holsen, T.M. Atmospheric Dry Deposition of Trace Elements Measured Around the Urban and Industrially Impacted NY-NJ Harbor. *Atmospheric Environment.* **2006**, *40*, 6626–6637.

35. **Totten, L.A.**; Panangadan\*, M.; Eisenreich, S.J.; Cavallo, G.J.; Fikslin, T.J. Direct and Indirect Atmospheric Deposition of PCBs to the Delaware River Watershed. *Environ. Sci. Technol.* **2006**, *40* (7), 2171-2176.
36. Gigliotti, C.L.; **Totten, L.A.**; Offenberg, J.H.; Dachs, J.; Reinfelder, J.R.; Nelson, E.D.; Glenn, T.R. IV; Eisenreich, S.J. Atmospheric Concentrations and Deposition of PAHs to the Hudson River Estuary. *Environ. Sci. Technol.* **2005**, *39*, 5550-5559.
37. Gioia, R.; Offenberg, J. H.; Gigliotti, C.L.; **Totten, L.A.**; Du\*, S.; Eisenreich, S.J. Atmospheric Concentrations and Deposition of Organochlorine Pesticides in the US Mid-Atlantic Region. *Atmospheric Environment*. **2005**, *39* (12), 2309-2322.
38. **Totten, L. A.**; Gigliotti, C. L.; VanRy, D. A.; Offenberg, J. H.; Nelson, E. D.; Dachs, J.; Reinfelder, J. R.; Eisenreich, S. J. Atmospheric Concentrations and Deposition of PCBs to the Hudson River Estuary. *Environ. Sci. Technol.* **2004**, *38*, 2568-2573.
39. Koelliker, Y.; **Totten, L. A.**; Gigliotti, C. L.; Offenberg, J. H.; Reinfelder, J. R.; Zhuang, Y.; Eisenreich, S. J. Atmospheric Wet Deposition of Total Phosphorus in New Jersey. *Water, Air, and Soil Pollution*. **2004**, *154* (1-4), 139-150.
40. **Totten, L. A.**; Gigliotti, C. L.; Offenberg, J. H.; Baker, J. E.; Eisenreich, S. J. Re-evaluation of Air-Water Exchange Fluxes of PCBs in Green Bay and Southern Lake Michigan. *Environ. Sci. Technol.* **2003**, *37*, 1739-1743.
41. Van Ry, D. A.; Gigliotti, C. L.; Glenn, T. R. IV; Nelson, E. D.; **Totten, L. A.**; Eisenreich, S. J. Wet Deposition of Polychlorinated Biphenyls in Urban and Background Areas of the Mid-Atlantic States. *Environ. Sci. Technol.* **2002**, *36*, 3201-3209.
42. Dachs, J.; Glenn, T. R.; Gigliotti, C. L.; Brunciak, P.; **Totten, L. A.**; Nelson, E. D.; Franz, T. P.; Eisenreich, S. J. Processes driving the short-term variability of polycyclic aromatic hydrocarbons in the Baltimore and northern Chesapeake Bay atmosphere, USA. *Atmospheric Environment* **2002**, *36*, 2281-2295.
43. Naumova, Y. Y.; Eisenreich, S. J.; Turpin, B. J.; Weisel, C. P.; Morandi, M. T.; Colome, S. D.; **Totten, L. A.**; Stock, T. H.; Winer, A. M.; Alimokhtari, S.; Kwon, J.; Shendell, D.; Jones, J.; Maberti, S.; Wall, S. J. Polycyclic aromatic hydrocarbons in the indoor and outdoor air of three cities in the US. *Environ. Sci. Technol.* **2002**, *36*, 2552-2559.
44. **Totten, L. A.**; Eisenreich, S. J.; Brunciak, P. Evidence for destruction of PCBs by the OH radical in urban atmospheres. *Chemosphere* **2002**, *47*, 735-746.
45. Gigliotti, C. L.; Brunciak, P. A.; Dachs, J.; IV, G. T. R.; Nelson, E. D.; **Totten, L. A.**; Eisenreich, S. J. Air-Water Exchange of Polycyclic Aromatic Hydrocarbons in the NY-NJ Harbor Estuary. *Environ. Toxicol. Chem.* **2001**, *21*, 235-244.
46. **Totten, L. A.**; Brunciak, P. A.; Gigliotti, C. L.; Dachs, J.; Glenn. T. R., IV; Nelson, E. D.; Eisenreich, S. J. Dynamic Air-Water Exchange of Polychlorinated Biphenyls in the NY-NJ Harbor Estuary. *Environ. Sci. Technol.* **2001**, *35*, 3834-3840.
47. **Totten, L. A.**; Roberts, A. L. Calculated one- and two-electron reduction potentials and related molecular descriptors for reduction of alkyl and vinyl halides in water. *Crit. Rev. Environ. Sci. Technol.* **2001**, *31*, 175-221.
48. **Totten, L. A.**; Roberts, A. L.; Jans, U. Alkyl bromides as probes of reductive dehalogenation: Reactions of stereochemical probes with zero-valent metals. *Environ. Sci. Technol.* **2001**, *35*, 2268-2274.

49. Roberts, A. L.; **Totten, L. A.**; Arnold, W. A.; Burris, D. R.; Campbell, T. J. Reductive elimination of chlorinated ethylenes by zero-valent metals. *Environ. Sci. Technol.* **1996**, *30*, 2654-2659.

### Other

1. **Rodenburg, LA** and Leidos. Green-Duwamish River Watershed Addendum to PCB Congener Study: Phase 2 Source Evaluation Report. Prepared for State of Washington Department of Ecology Toxics Cleanup Program. 2018.
2. **Rodenburg, LA** and Leidos. Green-Duwamish River Watershed PCB Congener Study: Phase 2 Initial Data Assessment. Prepared for State of Washington Department of Ecology Toxics Cleanup Program. 2017.
3. **Rodenburg, LA** and Leidos. Green-Duwamish River Watershed PCB Congener Study: Phase 2 Source Evaluation. Prepared for State of Washington Department of Ecology Toxics Cleanup Program. 2017.
4. Du\*, S.; **Rodenburg, LA**. "Measurement and Modeling of Semivolatile Organic Compounds in Local Atmospheres." In: *Biophysico-Chemical Processes of Anthropogenic Organic Compounds in Environmental Systems*. Baoshan Xing, Ed. Pp. 149-184, 2010.
5. **Totten, LA**. "The Importance of Atmospheric Interactions to PCB cycling in the Hudson and Delaware River Estuaries." In: *PCBs: Human and Environmental Disposition and Toxicology*. LG Hansen and LW Robertson, Eds. University of Illinois Press, Chicago, IL, pp. 51-59, 2008.
6. **Rodenburg, LA**. "Appendix B: Summary Of Mass Balances On Selected Polycyclic Aromatic Hydrocarbons (PAHs) In The NY/NJ Harbor Estuary." In: *Pollution Prevention And Management Strategies For Polycyclic Aromatic Hydrocarbons In The New York/New Jersey Harbor*. Report by the New York Academy of Sciences, pp. 139-141, 2007. Available at: <http://www.nyas.org/programs/harbor.asp>
7. **Totten, L. A.** "Present-Day Sources and Sinks for Polychlorinated Biphenyls (PCBs) in the Lower Hudson River Estuary," In: *Pollution Prevention And Management Strategies For Polychlorinated Biphenyls In The New York/New Jersey Harbor*. Report by the New York Academy of Sciences, pp. 84-96, 2005. Available at: <http://www.nyas.org/programs/harbor.asp>
8. **Totten, L. A.**; Eisenreich, S.J.; Gigliotti, C. L.; Dachs, J.; VanRy, D.A.; Yan, S.; Aucott, M. "Atmosphere Deposition of PCBs and PAHs to the New York/New Jersey Harbor Estuary." In: *The Hudson River Estuary*. J. Levinton and J. R. Waldman, Eds. Cambridge University Press, New York, pp. 398-412, 2006.
9. Baker, J. E.; **Totten, L. A.**; Gigliotti, C. L.; Offenber, J. H.; Eisenreich, S. J.; Bamford, H. A.; Huie, R. E.; Poster, D. L. Response to Comment on "Reevaluation of Air-Water Exchange Fluxes of PCBs in Green Bay and Southern Lake Michigan." *Environ. Sci. Technol.* **2004**, *38*, 1629-1632.
10. **Totten, L. A.**; Assaf-Anid, N. M. "Abiotic Dehalogenation by Metals." In: *Dehalogenation: Microbial Processes and Environmental Application*. Haggblom, M.M.; Bossert, I. D., Eds. Kluwer: New York, 2002.
11. Eisenreich, S. J.; Gigliotti, C.L.; Brunciak, P. A.; Dachs, J.; Glenn IV, T. R.; Nelson, E. D.; **Totten, L. A.**; VanRy, D.A. "Persistent Organic Pollutants in the Coastal Atmosphere of the Mid-Atlantic States-USA." In: *Persistent Bioaccumulative Toxic Organic Compounds*. R.



Lipnick, Ed. American Chemical Society Symposium Series: Washington, D. C., 2000.

## PRESENTATIONS

### Invited lectures

- Rodenburg, LA.** PCBs: An Update. Webinar presented September 25, 2017 for the Office of Continuing Professional Education. Available online at: youtube.com
- Rodenburg, LA.** Why are PCBs and PCDD/Fs dechlorinated by bacteria in some places but not others? Oral presentation. SETAC 38th Annual Meeting in North America, Minneapolis, MN, November 12-16, 2017.
- Rodenburg, LA.** Green-Duwamish River Watershed PCB Congener Study: Phase 2 Initial Data Assessment. Webinar for the Spokane River Toxics Taskforce. April 26, 2017.
- Rodenburg, LA.** Green-Duwamish River Watershed PCB Congener Study: Phase 2 Initial Data Assessment. Green-Duwamish Watershed Pollutant Loading Assessment Technical Advisory Committee. Tukwila, WA. March 15, 2017.
- Rodenburg, LA.** Green-Duwamish River Watershed PCB Congener Study: Phase 2 Initial Data Assessment. US EPA Region 10 and Washington State Department of Ecology. Seattle, WA. March 14, 2017.
- Rodenburg, LA.** Environmental Data Mining, or How to do Research with No Money. Special seminar, University of Maryland College Park, Department of Civil and Environmental Engineering. December 7, 2015.
- Rodenburg, LA.** Environmental Data Mining, or How to do Research with No Money. Special seminar, The Johns Hopkins University, Department of Geography and Environmental Engineering. December 8, 2015.
- Rodenburg, LA.** Microbial Dechlorination of PCBs—it's not just for sediments any more. 250th ACS National Meeting, Boston, MA, August 16-20, 2015.
- Rodenburg, LA.** Identifying non-Aroclor PCB sources through fingerprinting. Spokane River Regional Toxics Taskforce PCB Workshop. January 12-13, 2015, Spokane, WA.
- Rodenburg, LA.** Fingerprinting And Source Apportionment Of PCBs And BDEs. Eighth International Conference on Remediation and Management of Contaminated Sediments (Battelle), January 12-15, 2015, New Orleans, LA.
- Rodenburg, LA.,** Krumins, V.; Crowe-Curran, J. Dechlorination of PCBs in the groundwater of the Portland Harbor. Teleconference presentation to Region 10 EPA. January 5, 2015.
- Rodenburg, LA.** Identifying non-Aroclor PCB sources through fingerprinting. 8<sup>th</sup> International PCB Workshop, October 5-9, 2014, Woods Hole, MA.
- Guo, J.\*; Praipipat, P.\*; **Rodenburg, LA.** PCBs in pigments, inks, and dyes: Documenting the problem. 17<sup>th</sup> Annual Green Chemistry & Engineering Conference (American Chemical Society Green Chemistry Institute). June 19, 2013.
- Rodenburg, LA.** PCBs in consumer products, or how to do research with no money. Oral presentation, Department of Civil and Environmental Engineering, Temple University. March 22, 2013. Philadelphia, PA.
- Rodenburg, LA.** Stormwater PCBs: Tales from two urban estuaries. Oral presentation at Spokane River Regional Toxics Task Force. June 5-6, 2012. Spokane, WA.

- Rodenburg, LA.** Microbial dechlorination of persistent organic pollutants in sewers. Oral presentation, Department of Civil and Environmental Engineering, University of Houston. July 9, 2012. Houston, TX.
- Rodenburg, LA.** Dechlorination of PCBs and dioxins in sewers: Applications to the Passaic River. Special seminar, Montclair State University. March 21, 2012. Montclair, NJ.
- Rodenburg, LA; Cacia, DM.** Are urban atmospheric PCB concentrations going down? Oral presentation at the 242nd ACS National Meeting, August 28-September 1, 2011, Denver, CO.
- Rodenburg, LA; Du, S; Oseagulu, NU; Guo, J; Fennell, DE.** Evidence for dechlorination of PCBs and PCDD/Fs in sewers. Oral presentation at the 242nd ACS National Meeting, August 28-September 1, 2011, Denver, CO.
- Rodenburg, LA.** Water Quality Management in New Jersey's Waterways. Invited seminar, Fermentation Club, Rutgers University, April 3, 2009.
- Rodenburg, LA.** Diurnal Cycling of Persistent Organic Pollutants in the Atmosphere. Invited seminar, workshop on "Diurnal (Diel) Cycling of Chemical Constituents in Surface Water and Related Media—Scientific and Regulatory Considerations." New Jersey Department of Environmental Protection, December 12, 2008. Trenton, NJ.
- Rodenburg, LA.** History of contamination in the Hudson River. Invited seminar, Guangzhou Institute of Geochemistry-South China University of Technology Collaborative Workshop. November 13-15, 2008, Guangzhou, PRC.
- Rodenburg, LA.** PCBs in the Delaware River. Invited seminar, Guangzhou Institute of Geochemistry-South China University of Technology Collaborative Workshop. November 13-15, 2008, Guangzhou, PRC.
- Rodenburg, LA.** Water Quality Management in New Jersey's Waterways. Invited seminar, School of Environmental Science and Public Health, Wenzhou Medical College. November 18, 2008, Wenzhou, PRC.
- Rodenburg, LA.** Investigating Atmospheric PCB Source Types, Locations, And Magnitudes In Urban Areas Of New Jersey. Invited presentation, Fifth PCB Workshop: New Knowledge Gained From Old Pollutants. May 18-22, 2008, Iowa City, Iowa.
- Rodenburg, LA.** The TMDL for PCBs in the Delaware River. Invited seminar, University of Minnesota, Department of Civil and Environmental Engineering, Minneapolis, MN. April 24, 2008.
- Rodenburg, LA.** The TMDL for PCBs in the Delaware River. Invited seminar, Kettering College of Medical Arts, Kettering, OH. March 27, 2008.
- Rodenburg, LA.** Atmospheric deposition to the Hudson River. Invited lecture, New York University, November 6, 2007.
- Rodenburg, LA; Du, S.; Xiao, B.; Belton, T.; Fennell, D. E.** Source Apportionment of Urban PCBs. Platform presentation SETAC 28th Annual Meeting in North America, November 11-15, 2007, Milwaukee, WI.
- Totten, LA.** PBDEs in the air and water of the NY/NJ Harbor. NJDEP, Trenton, NJ. June 27, 2007.
- Totten, LA.** Atmospheric Deposition of PCBs to the NY/NJ Harbor and Delaware River. Plenary Presentation, Hudson-Delaware Chapter, SETAC Annual Meeting, Stockton, NJ. April 27-28, 2007.

- Totten, LA.** PBDEs in the air and water of the NY/NJ Harbor. Hudson River Foundation. May 3, 2006.
- Totten, LA.** Invited seminar at City College of New York Chemistry Department. September 26, 2005.
- Totten, LA.** Sampling for semivolatile organic contaminants in environmental compartments. City College of New York, May 5, 2005.
- Totten, LA.** Invited seminar, NOAA, Ecosystem Processes Division, Howard Laboratories, Highlands, NJ. October 18, 2004.
- Totten, LA, AA Rowe, S Yan.** Importance of atmospheric interactions to PCB cycling in the Hudson and Delaware River estuaries. Invited oral presentation, American Chemical Society National Meeting, Philadelphia, August 2004.
- Totten, LA, AA Rowe, S Yan, SJ Eisenreich.** "Importance of atmospheric interactions to PCB cycling in the Hudson and Delaware River Estuaries." 3<sup>rd</sup> PCB Workshop on Recent Advances in the Environmental Toxicology and Health Effects of PCBs. Champaign, IL, June 13-15, 2004.
- Totten, LA.** Invited seminar at Swarthmore College, Swarthmore, PA. April 20, 2004.
- Totten, LA.** "Present-Day Sources and Sinks for Polychlorinated Biphenyls (PCBs) in the Lower Hudson River Estuary." New York Academy of Sciences, New York City, June 2003.
- Totten, LA, CL Gigliotti, DA VanRy, ED Nelson, J Dachs, S Yan, JR Reinfelder, and SJ Eisenreich.** "PCBs in the Hudson River Estuary: Atmospheric Inputs and Air-water Exchange." New York Academy of Sciences, New York City, November 2002.
- Totten, LA, SJ Eisenreich, PA Brunciak.** Evidence for Reactions of PCBs with OH Radical In Urban Atmospheres. 3<sup>rd</sup> SETAC World Congress, Brighton, United Kingdom, 2000.
- Totten, LA, AL Roberts.** Alkyl Bromides as Mechanistic Probes of Reductive Dehalogenation: Reactions with Zero-Valent Metals. Graduate Student Paper Award Presentation given at the American Chemical Society Annual Meeting, Boston, MA, August 1998.

### **Presentations at conferences**

- Capozzi, SL\*; Ran, J; **Rodenburg, LA;** Kjellerup, BV; Wilson, EK. Source apportionment of polychlorinated biphenyls in District of Columbia wastewater. Poster. SETAC 38th Annual Meeting in North America, Minneapolis, MN, November 12-16, 2017.
- Rodenburg, LA.** Opportunities and Challenges of Environmental Data Mining. Oral Presentation. SETAC 38th Annual Meeting in North America, Minneapolis, MN, November 12-16, 2017.
- Chitsaz MM\*; **Rodenburg, LA.** PCB cycling in stormwater in an urban high desert: Santa Fe, NM. Poster. SETAC 38th Annual Meeting in North America, Minneapolis, MN, November 12-16, 2017.
- Capozzi, SL\*; **Rodenburg, LA;** Krumins, V; Fennell, DE; Mack, EE. Using Positive Matrix Factorization to Investigate Microbial Dehalogenation of Contaminants in Groundwater. Fourth International Symposium on Bioremediation and Sustainable Environmental Technologies (Battelle). Miami, FL, May 22-25, 2017.
- Capozzi, SL\*; Ran, J; **Rodenburg, LA;** Kjellerup, BV; Wilson, EK. Source apportionment of polychlorinated biphenyls in District of Columbia wastewater. Poster presentation at the

- 2017 Chesapeake Potomac Regional Chapter of the Society of Environmental Toxicology and Chemistry, Annapolis, MD, 2017.
- Capozzi, SL\*; Ran, J; **Rodenburg, LA**; Kjellerup, BV; Wilson, EK. Source apportionment of polychlorinated biphenyls in District of Columbia wastewater. Oral presentation at the 254th American Chemical Society Fall National Meeting & Exposition, Washington, DC, 2017.
- Rodenburg LA, and Du, S\*. Data Mining and Source Apportionment to Understand Sources and Fate of PCBs. Poster presentation, 9<sup>th</sup> International PCB Workshop, October 9-13, 2016 Kobe, Japan.
- Rodenburg LA, Capozzi, SL\*. Data Mining To Answer Complex Environmental Questions. Platform presentation SETAC 37th Annual Meeting in North America, Orlando, FL, November 6-10, 2016.
- Rodenburg, LA; Fahrenfeld, N; Blackburne, B<sup>s</sup>. Factors controlling antibiotics levels in biosolids. Poster presentation SETAC 37th Annual Meeting in North America, Orlando, FL, November 6-10, 2016.
- Blackburne, B; Fahrenfeld, N; **Rodenburg, LA**; Factors controlling antibiotics levels in biosolids. American Chemical Society, 252<sup>nd</sup> National Meeting, August 21-25, 2016, Philadelphia, PA.
- Williams, L; Klein A; Milne M; **Rodenburg L**; Fuchs V; Lindsay R. Analyzing Toxics At Parts Per Quadrillion Levels In The Collection System And Treatment Plant Effluent. WEFTEC 2015, September 26-30, 2015, Chicago, IL.
- Uram, A<sup>s</sup>; Guo, J\*; **Rodenburg LA**, Capozzi, SL\*. Linking contaminated buildings to atmospheric levels of polychlorinated biphenyls. 8<sup>th</sup> International PCB Workshop, October 5-9, 2014, Woods Hole, MA.
- Capozzi, S\*; **Rodenburg, LA**; Guo, J\*; Murphy, A<sup>s</sup>; Fennell, DE. Degradation of PCBs by anaerobic bacteria in sewers. 8<sup>th</sup> International PCB Workshop, October 5-9, 2014, Woods Hole, MA.
- Capozzi, S; **Rodenburg, LA**; Guo, J; Murphy, A; Fennell, DE. Degradation of halogenated pollutants by anaerobic bacteria in sewers. Oral presentation, 2013 North America meeting of the Society for Environmental Toxicology and Chemistry (SETAC). November, 2013.
- Rodenburg, LA**; Guo, J; Capozzi, S; Murphy, A; Fennell, DE. Degradation of flame retardants by anaerobic bacteria in sewers. Poster presentation, 2013 North America meeting of the Society for Environmental Toxicology and Chemistry (SETAC). November, 2013.
- Rodenburg, LA**; Guo, J; Praipipat, P; Capozzi, S; Murphy, A; Kraeutler, T. PCBs from pigments in children's clothing, crayons, and paper. Poster presentation, 2013 North America meeting of the Society for Environmental Toxicology and Chemistry (SETAC). November, 2013.
- Rodenburg, LA**; Guo, J; Praipipat, P. PCBs in pigments, inks, and dyes. Oral presentation at the Hudson-Delaware Chapter of SETAC. May 2, 2013, Edison, NJ.
- Rodenburg, LA**. PCBs in consumer products, or how to do research with no money. Oral presentation, Department of Environmental Science, Rutgers University. April 12, 2013. New Brunswick, NJ.

- Rodenburg, LA**; Greenfield, BK; Klosterhaus, SL; Yee, D. Photolytic and microbial debromination of BDEs in San Francisco Bay. Oral presentation at the SETAC North America 33rd Annual Meeting, November 2012, Long Beach, CA.
- Rodenburg, LA**; Guo, J; Du, S; Fikslin, TJ; Cavallo, GJ. Atmospheric deposition of PCBs to the Delaware River. Oral presentation at the SETAC North America 33rd Annual Meeting, November 2012, Long Beach, CA.
- Sandy, AL; **Rodenburg, LA**; Miskewitz, RJ; McGillis, WR; Guo, J. Air-water Exchange Fluxes and Mass Transfer Coefficients for PCBs on the Hudson River. Oral presentation at the SETAC North America 32nd Annual Meeting, November 13-17, 2011, Boston, MA.
- Rodenburg, LA**; Guo, J; Du, S; Oseagulu, NU; Fennell, DE. Are Dioxins Dechlorinated in Sewers? Oral presentation at the SETAC North America 32nd Annual Meeting, November 13-17, 2011, Boston, MA.
- Sandy, AL; **Rodenburg, LA**; Guo, J; Miskewitz, RJ; McGillis, WR. Air-water exchange fluxes and mass transfer coefficients for PCBs on the Hudson River. Oral presentation at the 242nd ACS National Meeting, August 28-September 1, 2011, Denver, CO.
- Rodenburg, LA**; Du, S; Fennell, DE; Cavallo, GJ. Evidence For Extensive Dechlorination Of PCBs In Sewers, Landfills, And Contaminated Groundwater. Oral presentation at Dioxin 2010, 30<sup>th</sup> International Symposium on Halogenated Persistent Organic Pollutants (POPs), September 12-17, 2010, San Antonio, TX.
- Rodenburg, LA**; Du, S; Fennell, DE; Cavallo, GJ. Evidence For Extensive Dechlorination Of PCBs In Sewers, Landfills, And Contaminated Groundwater. Oral presentation, 6<sup>th</sup> International PCB Workshop, May 20-June 2, 2010, Visby, Sweden.
- Sandy, AL; Miskewitz, RJ; **Rodenburg, LA**. Direct Measurement of Air/Water Exchange Mass Transfer Coefficients for Polychlorinated Biphenyls using the Micrometeorological Technique. Poster presentation SETAC 30th Annual Meeting in North America, November 19-23, 2009, New Orleans, LA.
- Guo, J; Du, S; **Rodenburg, LA**; Cavallo, GJ. Sources of the non-Aroclor congener PCB 11 (3,3'-dichlorobiphenyl) in urban waterways. Poster presentation SETAC 30th Annual Meeting in North America, November 19-23, 2009, New Orleans, LA.
- Guo, J; Du, S; **Rodenburg, LA**; Cavallo, GJ. PCB 11 (3,3'-dichlorobiphenyl) in Urban Waterways From Non-Aroclor Sources. Oral presentation American Chemical Society Northeastern Regional Meeting; October 7, 2009; Hartford, CT.
- Park, J-W; Krumins, V; Kjellerup, BV; Gillespie, KM; Fennell, DE; Kerkhof, LJ; **Rodenburg, LA**; Sowers, KR; Häggblom, MM. Anaerobic PCB dechlorination by pentachloronitrobenzene-activated Dehalococcoides spp. American Society for Microbiology 2009 General Meeting; May 17 -21, 2009; Philadelphia, PA.
- Krumins, V; Park, J-W; Du, S; **Rodenburg, LA**; Häggblom, MM; Kerkhof, LJ; Fennell DE. Reductive Dechlorination of PCBs in Biostimulated Contaminated Sediment. American Society for Microbiology 2009 General Meeting; May 17 -21, 2009; Philadelphia, PA.
- Liu, H; Park, J-W; **Rodenburg, LA**; Fennell, DE; Häggblom, MM. Microbial Community Analysis after Dechlorination Stimulating Treatments of Polychlorinated Dibenzo-p-dioxin and Dibenzofuran Contaminated Sediment. American Society for Microbiology 2009 General Meeting; May 17 -21, 2009; Philadelphia, PA.

- Rodenburg, LA**; Belton, TJ; Du, S; Sandy, AL; Rowe, AA. Atmospheric deposition, source apportionment, and the TMDL for PCBs in the Delaware River, USA. Oral presentation at the 5th SETAC World Congress, 3 - 7 August 2008, Sydney, Australia.
- Rodenburg, LA**; Krumins, V; Park, J-W; Haggblom, MM; Kerhko, LJ; Fennell, DE. Stimulation of PCB Dechlorination and Dechlorinators in Contaminated Sediments. Oral presentation at the 5th SETAC World Congress, 3 - 7 August 2008, Sydney, Australia.
- Asher, BJ; Wong, CS; **Rodenburg, LA**. Chiral signatures as a tool for source apportionment of PCBs in the Hudson River Estuary. Platform presentation SETAC 28th Annual Meeting in North America, November 11-15, 2007, Milwaukee, WI.
- Rodenburg, LA**. PCB sources and fate in New Jersey. Platform presentation SETAC 28th Annual Meeting in North America, November 11-15, 2007, Milwaukee, WI.
- Rodenburg, LA**; Zarnadze, A. Water column partitioning of BDEs in the New York/New Jersey Harbor. Platform presentation SETAC 28th Annual Meeting in North America, November 11-15, 2007, Milwaukee, WI.
- Asher, BJ; Wong, CS; **Totten, LA**. Chiral signatures as a tool for source apportionment of PCBs in the Hudson River Estuary. Oral presentation, American Chemical Society National Meeting, Boston, MA, August 19-23, 2007.
- Fennell, DE; Krumins, V; Ravit, B; **Totten, LA**. Bioremediation approaches for PCB- and PCDD/F-contaminated sediments. Oral presentation, American Chemical Society National Meeting, Boston, MA, August 19-23, 2007.
- Du, S.; Xiao, B.; Belton, T.; Fennell, D. E.; **Totten, LA**. Source apportionment of PCBs in the Delaware River and NY/NJ Harbor. Oral presentation, American Chemical Society National Meeting, Boston, MA, August 19-23, 2007.
- Sandy, A. L.; Du, S.; Kaczorowski, D. M.; **Totten, LA**. Atmospheric PCB sources to the Delaware River. Oral presentation, American Chemical Society National Meeting, Boston, MA, August 19-23, 2007.
- Totten, LA**; Du, S; Stenichkov, G. Modeling atmospheric POP dynamics in urban systems. Oral presentation, American Chemical Society National Meeting, Boston, MA, August 19-23, 2007.
- Xiao, B.; Du, S.; Fennell, D. E.; Totten, L. A. Source apportionment of POPs in the NY/NJ Harbor. Oral presentation, American Chemical Society National Meeting, Boston, MA, August 19-23, 2007.
- Zarnadze, A.; Totten, L. A. Brominated diphenyl ethers in the New York/New Jersey Harbor. Oral presentation, American Chemical Society National Meeting, Boston, MA, August 19-23, 2007.
- Kaczorowski, DM; Sandy, AL; Wall, SJ; **Totten, LA**. Investigating the correlation of atmospheric polychlorinated biphenyl concentrations with several variables in Camden, NJ. Poster presented at the Hudson-Delaware Chapter of SETAC Annual Meeting. April 26-27, 2007.
- Du, S; **Totten, LA**. Source Apportionment of PCBs in the Delaware River Estuary. Oral presentation at the Hudson-Delaware Chapter of SETAC Annual Meeting. April 26-27, 2007.

- Sandy, AL; Du, S; **Totten, LA**. Atmospheric deposition sources of PCBs to the Delaware River. Oral presentation at the Hudson-Delaware Chapter of SETAC Annual Meeting. April 26-27, 2007.
- Hägglom, M.M.; Fennell, D.E.; Kerkhof, L.J.; Totten, L.A.; Sowers, K.R.; Ahn, Y.-B.; Liu, F.; Liu, H.; Park, J.-W.; Krumsins, V. 2006. Quantifying Enhanced Microbial Dehalogenation of Organohalide Mixtures in Contaminated Sediments. Partners in Environmental Technology Technical Symposium & Workshop sponsored by SERDP and ESTCP. November 28-30, 2006. Washington, D.C.
- Pagnout C.; Ní Chadhain, S. M.; **Totten, L. A.**; Zylstra, G. J.; Kukor, J. J. Molecular characterization of microbial community shifts occurring in Passaic River sediments during enrichment on biphenyl and monochlorobiphenyls. 5th Tripartite Workshop in Biotechnology and Bioenergy (NJ, USA), April 2007.
- Pagnout, C.; Ní Chadhain, S. M.; **Totten, L. A.**; Zylstra, G. J.; Kukor, J.J. Microbial Diversity Shifts in Sediment Enrichment Cultures during the Aerobic Degradation of Biphenyl and Mono-Chlorinated Biphenyls. American Society for Microbiology, General Meeting, Toronto, Canada, May 21-25, 2007.
- Fennell, D.E., Liu, F., Son, E.-K., Zarnadze, A., Krogmann, U., **Totten, L.A.** Fate of Brominated Flame Retardants in New Jersey Wastewater Treatment Facilities. Oral presentation at the USDA NEC 1010 Meeting, Ithaca, NY, October 18-19, 2006.
- Zarnadze, A.; **Totten, LA**. BDEs in the New York/New Jersey Harbor, USA. Poster presentation at the SETAC 27th Annual Meeting in North America, 5-9 November 2006, Montreal, Canada.
- Du, S; **Totten, LA**. PCB sources to the Delaware River, USA. Oral presentation at the SETAC 27th Annual Meeting in North America, 5-9 November 2006, Montreal, Canada.
- Totten, LA**; Rowe, AA; Panangadan, M. Atmospheric Deposition and Volatilization of PCBs in the tidal Delaware River. Oral presentation at SETAC 26th Annual Meeting in North America, 13-17 November 2005, Baltimore, Maryland, USA.
- Du, S; **Totten, LA**. Attempts to Identify Atmospheric PCB sources in the Philadelphia Metro Area. Oral presentation at SETAC 26th Annual Meeting in North America, 13-17 November 2005, Baltimore, Maryland, USA.
- Totten, LA**. A Mass Balance On PCBs and PAHs in the NY/NJ Harbor Estuary. Oral presentation at SETAC 26th Annual Meeting in North America, 13-17 November 2005, Baltimore, Maryland, USA.
- Fennell, DE; Liu, F; Son, E-K; Zarnadze, A; Krogmann, U; **Totten, LA**. Biotransformation of Halogenated Contaminants in Sludges and Enrichments from Municipal Anaerobic Digesters. Oral presentation at SETAC 26th Annual Meeting in North America, 13-17 November 2005, Baltimore, Maryland, USA.
- Asher, B; Wong, C; **Totten, LA**. Source apportionment of chiral PCBs in the Hudson River Estuary. Poster presentation at SETAC 26th Annual Meeting in North America, 13-17 November 2005, Baltimore, Maryland, USA.
- Totten, LA**; Du, S. Atmospheric PCB Sources in the Philadelphia Metro Area. SETAC Hudson-Delaware Chapter Regional Meeting, April 28, 2005.
- Du, S; **Totten, LA** Identifying source areas of PCBs to the Camden/Philadelphia atmosphere. Poster presentation, SETAC 25th Annual Meeting, Portland, OR, November 14-18, 2004.

- Rowe, AA; **Totten, LA**; Offenberg, JH; Reinfelder, JR; Eisenreich, SJ. Air-water exchange of polychlorinated biphenyls in the Delaware River Basin. Poster presentation, SETAC 25th Annual Meeting, Portland, OR, November 14-18, 2004.
- Rowe, AA; **Totten, LA**; Offenberg, JH; Sommerfield, CK; Du, S; Reinfelder, JR; Eisenreich, SJ. Accumulation of PCBs in sediments of the Delaware River Estuary. Poster presentation, SETAC 25th Annual Meeting, Portland, OR, November 14-18, 2004.
- Wall, SJ; **Totten, LA**. A Mobile Platform for Air Toxics Monitoring in New Jersey, USA. Poster presentation, SETAC 25th Annual Meeting, Portland, OR, November 14-18, 2004.
- Zarnadze, A; **Totten, LA**; Eisenreich, SJ. Measurements of Polybrominated Diphenyl Ethers (PBDEs) in the air and water of NY/NJ Harbor Estuary. Poster presentation, SETAC 25th Annual Meeting, Portland, OR, November 14-18, 2004.
- Totten, LA**. Importance of atmospheric interactions to PCB cycling in the Hudson and Delaware River Estuaries. Poster presentation, SETAC 25th Annual Meeting, Portland, OR, November 14-18, 2004.
- Totten, LA**; Litten, SP. Mass Balance On PCBs and PAHs in the NY/NJ Harbor Estuary. Poster presentation, SETAC 25th Annual Meeting, Portland, OR, November 14-18, 2004.
- Zarnadze, A, **LA Totten**. Levels of Polybrominated Diphenyl Ethers (PBDEs) in the Atmosphere of New Jersey, USA. Oral Presentation, Dioxin 2004, Berlin, Germany, September 2004.
- Polidori, A, BJ Turpin, HJ Lim, **LA Totten**, C Davidson. Characterization Of The Organic Fraction Of Atmospheric Aerosols. Annual Meeting of the American Association for Aerosol Research, Atlanta, GA, October 2004.
- Totten, LA**, S Litten. Mass Balances On PCBs and PAHs in the NY/NJ Harbor Estuary. Oral presentation at the 36th Mid-Atlantic Industrial and Hazardous Waste Conference, University of Connecticut, Storrs, CT, October 8-10, 2004.
- Zarnadze, A, **LA Totten**, DE Fennell, MP Giacalone, U Krogmann. PBDEs in the NY/NJ Harbor estuary. Poster presentation, American Chemical Society National Meeting, Philadelphia, August 2004.
- Rowe, AA, S Du, SJ Eisenreich, JH Offenberg, **LA Totten**, A Zarnadze. Accumulation of PCBs in sediments of the Delaware River Estuary. Oral presentation, American Chemical Society National Meeting, Philadelphia, August 2004.
- Rowe, AA.; Eisenreich, SJ.; Offenberg, JH.; **Totten, LA**. "Accumulation of PCBs in sediments of the Delaware River Estuary." Oral Presentation, Society of Toxicology and Chemistry 24th Annual Meeting in North America, Austin, Texas, November **2003**.
- Yan, S, **LA Totten**, CL Gigliotti, JH Offenberg, SJ Eisenreich, J Dachs, JR Reinfelder. "Air-water exchange controls phytoplankton PCB concentrations in impacted estuaries." Society of Toxicology and Chemistry 24th Annual Meeting in North America, Austin, Texas, November **2003**.
- Zhuang, Y, KM Ellickson, SJ Eisenreich, **LA Totten**, JR Reinfelder. "Atmospheric deposition and impacts of trace metals and mercury in the New Jersey Atmospheric Deposition Network (NJADN)." Poster, Society of Toxicology and Chemistry 24th Annual Meeting in North America, Austin, Texas, November **2003**.
- Zarnadze, A, **LA Totten**, JH Offenberg, CL Gigliotti, SJ Eisenreich. "Measurements of Polybrominated Diphenyl Ethers (PBDE) in the air and water of Hudson River Estuary."



- Poster, Society of Toxicology and Chemistry 24th Annual Meeting in North America, Austin, Texas, November **2003**.
- Ellickson, KM, Y Zhuang, BJ Turpin, SJ Eisenreich, **LA Totten**, JR Reinfelder. "Source identification of mercury and other trace metals in New Jersey fine particulate matter (PM<sub>2.5</sub>) and rain." Poster, Society of Toxicology and Chemistry 24th Annual Meeting in North America, Austin, Texas, November **2003**.
- Cardona-Marek, T, KM Ellickson, **LA Totten**, JR Reinfelder. "Mercury Cycling in the Estuarine Zones of the Delaware River." Poster, Society of Toxicology and Chemistry 24th Annual Meeting in North America, Austin, Texas, November **2003**.
- Totten, LA**, JR Reinfelder, CL Gigliotti, DA Van Ry, J Dachs, JH Offenberg, Y Koelliker, M Panangadan, S Yan, Y Zhuang, SM Goodrow, KM Ellickson, R Gioia, and SJ Eisenreich. "Atmospheric Deposition of Organic and Inorganic Contaminants to the New Jersey Meadowlands." Oral presentation, Meadowlands Symposium, New Jersey Meadowlands Commission, Lyndhurst, NJ, October 9 and 10, **2003**.
- Totten, LA**, S Yan, and CL Gigliotti. "PCBs: The Lower Hudson River Estuary and the New Jersey Atmospheric Deposition Network." Oral presentation, American Chemical Society National Meeting, New York City, September 2003.
- Assaf-Anid, NM, M Blenner, **LA Totten**, Y-B Ahn, DE Fennell, and M Haggblom. "Agreement of computational chemistry predictions of reductive dechlorination pathways with experimental microcosm studies." Poster, American Chemical Society National Meeting, New York City, September 2003.
- Rowe, AA, SJ Eisenreich, CL Gigliotti, JH Offenberg, and **LA Totten**. "Interactions of atmospheric polychlorinated biphenyls with the Delaware River Estuary." Oral presentation, American Chemical Society National Meeting, New York City, **2003**.
- Gigliotti, CL. **LA Totten**, DA VanRy, PA Brunciak, TR Glenn, J Dachs, SJ Eisenreich. "Atmospheric Deposition and Air-Water Exchange of PAHs in the NY/NJ Harbor Estuary." Oral presentation, Society of Environmental Toxicology and Chemistry, 22nd Annual Meeting, Baltimore, Maryland, **2001**.
- Totten, LA**, CL Gigliotti, DA VanRy, TR Glenn, SJ Eisenreich. "Atmospheric Deposition and Air-water Exchange of Heptachlor in the NY/NJ Harbor Estuary." Oral presentation, Society of Environmental Toxicology and Chemistry, 22nd Annual Meeting, Baltimore, Maryland, **2001**.
- Totten, LA**, X Liu, DJ Braun, Assaf-Anid, NM. "Use Of Computational Chemistry To Predict Reduction Potentials Of Polychlorinated Biphenyls." Poster, American Chemical Society Annual Meeting, San Diego, CA, April **2001**.
- Assaf-Anid, N. Robert Ambrosini, Xuefeng Liu, Lisa Totten. "A Comparison of Computational Chemistry and Bond Contribution Calculations as Tools for Two-electron Redox Determinations of PCBs." Poster, Society of Environmental Toxicology and Chemistry, 22nd Annual Meeting, Baltimore, Maryland, **2001**.
- Totten, LA**, CL Gigliotti, DA VanRy, PA Brunciak, TR Glenn, SJ Eisenreich. Atmospheric Deposition and Air-Water Exchange of PCBs in the NY/NJ Harbor Estuary. Poster, Society of Environmental Toxicology and Chemistry, 22nd Annual Meeting, Baltimore, Maryland, **2001**.

- Totten, LA**, X Liu, DJ Braun, NM Assaf-Anid. "Use Of Computational Chemistry To Predict Reduction Potentials Of Polychlorinated Biphenyls." Poster, American Chemical Society Annual Meeting, San Diego, CA, April **2001**.
- Van Ry, DA, TR Glenn, C Schaufele, R Gioia, CL Gigliotti, **LA Totten**, SJ Eisenreich. "Atmospheric PCBs and PAHs from an Urban to a Forested Area in the Mid-Atlantic States." Oral presentation, Society of Environmental Toxicology and Chemistry, 22nd Annual Meeting, Baltimore, Maryland, **2001**.
- Assaf-Anid, NM, **LA Totten**, SJ Braun. "Computational chemistry calculations of thermodynamic descriptors for chlorinated aliphatic compounds and PCBs." Poster, Society of Environmental Toxicology and Chemistry National Meeting, Nashville, TN, **2000**.
- Braun, DJ, NM Assaf-Anid, **LA Totten**, "Computational Chemistry: A Novel Approach for Redox Potential Calculations." Oral Presentation, The 32nd Annual Mid-Atlantic Industrial and Hazardous Waste Conference, Rensselaer Polytechnic Institute, **2000**.
- Cummings, DA, **LA Totten**, T Lectka, AL Roberts. "Computational Methods For Predicting Heats Of Formation Of Halogenated Methyl And Ethyl Radicals." Oral presentation, American Chemical Society Annual Meeting, Anaheim, CA, April **2000**.
- Totten, LA**, AL Roberts. "Kinetics of inner-sphere reduction reactions of polyhalogenated methanes." Poster, American Chemical Society Annual Meeting, San Francisco, CA, **1997**.
- Totten, LA**, AL Roberts. "Stereospecificity of vicinal dehalogenation reactions promoted by abiotic reductants." Poster, Environmental Sciences: Water Gordon Research Conference, New Hampton, NH, June **1996**.
- Roberts, AL, DR Burris, TJ Campbell, JA Specht, WA Arnold, **LA Totten**. "Influence of electron transfer pathway on products resulting from metal-promoted reduction of chlorinated ethenes." Oral presentation, IBC International Symposium on Biological Dehalogenation, Annapolis, MD, October 18-19, **1995**.
- Totten, LA**, AL Roberts. "Investigating electron transfer pathways during reductive dehalogenation reactions promoted by zero-valent metals." Oral presentation, American Chemical Society Annual Meeting, Anaheim, CA, April **1995**.

## **PAST AND CURRENT SUPPORT**

- NY/NJ Harbor Contamination Assessment and Reduction Project: CARP II. NJDOT. 7/1/2016-6/30-2018. LA Rodenburg and RJ Miskewitz. Subcontract to Rutgers: \$190,000. Full grant: \$4,000,000 to Monmouth U.
- Rutgers University Raritan River Initiative. EPA. 7/1/2012-6/30/2015. CC Obropta, B Ravit, LA Rodenburg. \$100,000
- Using Sewage to Treat Contaminated Sediment. Rutgers Office of Technology Commercialization. 9/1/2012-8/30/2014. LA Rodenburg, RJ Miskewitz. \$50,000.
- Where is microbial dehalogenation occurring in the groundwater at Chambers Works? DuPont Corporation. 1/1/2012-12/31/2014. LA Rodenburg, V Krumins. \$300,000.
- Baseline Assessment of Water and Sediment Quality in the Lower Raritan River. Edison Wetlands Association. 1/1/2011 – 12/31/2012. LA Rodenburg, LJ Kerkhof. \$50,000.

Talking Creativity: Conversations between Scientists and Artists. RU FAIR mini-grant proposal. 1/1/2011-6/30/2011. F Olin, LA Rodenburg. \$4400.

Continuation of the New Jersey Atmospheric Deposition Network (NJADN). Delaware River Basin Commission. 1/1/2010-6/30/2012. Approx. \$100,000 per year. LA Rodenburg.

Quantifying Enhanced Microbial Dehalogenation Impacting the Fate and Transport of Organohalide Mixtures in Contaminated Sediments. SERDP. 3/1/2006-2/28/2010. \$1,880,000. MM Haggblom, DE Fennell, LA Totten, LJ Kerkhof, and K Sowers (UMd).

Measuring Indoor Air Quality in “Green” Hotel Rooms. Hartz Mountain Industries. 1/2009-6/2009. \$10,000. LA Rodenburg and J Senick (RU Center for Green Building).

A Gas Chromatograph-Mass Spectrometer (GCMS) for the Analysis of Organic Compounds in Marine and Environmental Samples. Cook/NJAES Intramural Awards Program, Research Infrastructure Awards. 3/10/09-6/30/09. \$25,500 EL Sikes, P Falkowski, DE Fennell, W Huang, LA Rodenburg and N Yee.

Measuring Indoor Air Quality in “Green” vs. Conventional Residential Construction. BASF Corporation. 9/2008-3/2009. \$3,000. LA Rodenburg and J Senick (RU Center for Green Building).

Graduate student fellowship to Andy L. Sandy. Hudson River Foundation. 9/1/08-8/31/09. \$16,000. AL Sandy and LA Rodenburg.

Assessing the Status of Women in Engineering at Rutgers University. Office of the Associate VP for Promotion of Women in Science, Engineering and Mathematics, Rutgers University. 7/1/2008-3/31/2009. \$7,950. M Baykal-Gursoy, J Bennett, HM Buettner, L Klein, U Krogmann, M Pelegri, LA Rodenburg, PA Roos.

Volatilization of PCBs from the Tappan Zee region of the Hudson River. NJWRRI. 3/1/2008-2/28/2009. \$30,000. LA Rodenburg and RJ Miskewitz.

Continued Air Monitoring for PCBs in the Delaware River Estuary via the NJADN. Delaware River Basin Commission. 6/1/08-12/31/09. \$70,000. LA Rodenburg

Passive Air Sampling for PCBs in the Philadelphia Area. Delaware River Basin Commission. 10/1/06-12/31/07. \$24,000. LA Totten

Continued Air Monitoring for PCBs in the Delaware River Estuary via the NJADN. Delaware River Basin Commission. 10/1/06-12/31/07. \$88,000. LA Totten

Insights into the Cycling of PCBs in the NY/NJ Harbor Estuary from Chiral Analysis. NJDEP. 7/1/2006-6/30/2007. \$50,000. LA Totten.

Construction of a Flux Chamber to Determine Air–Water Exchange Mass Transfer Coefficients of Hydrophobic Organic Contaminants. Cook/NJAES Intramural Awards Program, Pre-Tenure Faculty Career Development Awards. 3/10/06-6/30/06. \$29,540. LA Totten.

An Accelerated Solvent Extraction (ASE) System for Analysis of Anthropogenic and Natural Chemicals in Environmental Samples and Biota. Cook/NJAES Intramural Awards Program, Research Infrastructure Awards. 3/10/06-6/30/06. \$34,620. LA Totten, DE Fennell, MM Haggblom, W Huang, L Kerkhof, C Obropta, EL Sikes, LA White.

Source apportionment of organic contaminants in the NY/NJ Harbor Estuary. Hudson River Foundation. 7/1/2005-12/31/2007. \$95,300. LA Totten and DE Fennell.

Source Apportionment of PCBs in the Delaware River Estuary. NJDEP. 7/1/2005-6/30/2006. \$65,000. LA Totten.

Impacts of Organic Matter Heterogeneity on Desorption and Availability of Sediment-Bound PCBs. NJWRRI. 3/1/2005-2/28/2006. \$30,000. W Huang and LA Totten.

Triple Quadrupole GC/MS For Analysis of Trace Organics in Environmental Matrixes. (Instrumentation Grant). Academic Excellence Fund, Rutgers University. 2004-2005. \$175,000. LA Totten, DE Fennell, JR Reinfelder, W Huang, BJ Turpin, RM Sherrell, EL Sikes, LA White.

Graduate Student Fellowship to Archil Zarnadze. Hudson River Foundation. 9/1/04-8/31/05. \$16,000. A Zarnadze and LA Totten.

Fate of Brominated Flame Retardants in New Jersey Wastewater Treatment Facilities. NJWRRI. 3/1/2004-2/28/2005. \$30,000. DE Fennell, LA Totten and U Kroghmann.

Continued Measurement and Modeling of Atmospheric PCBs in the Delaware River Basin. Delaware River Basin Commission, \$95,000, 2003-2005

Community Based Air Toxics Monitoring Studies. NJDEP, \$272,000, 1/1/2003-12/31/2004. LA Totten.

Emissions And Atmospheric Transport Of PCBs And Hg From Stabilized Harbor Sediments. NJ Marine Sciences Consortium, \$219,000, 4/3/2003-6/60/2004. JR Reinfelder, LA Totten, G Stenchikov, GP Korfiatis, RI Hires.

Measurement of Atmospheric PCBs in the Delaware River Basin. Delaware River Basin Commission, \$316,000, 2001-2005. LA Totten, JR Reinfelder, SJ Eisenreich.

Measurement of PBDEs in the Air and Water of the Hudson River Estuary. Hudson River Foundation, \$176,000, 7/1/2002-6/30/2004. LA Totten, SJ Eisenreich.

Characterizing Organic Fine Particulate Matter (PM2.5) for the Pittsburgh Supersite. Electric Power Research Institute, \$50,000, 2002. BJ Turpin, LA Totten.

Atmospheric Dry Particle Deposition of POPs and Trace Metals in an Urban- and Industrially-Impacted Mid-Atlantic Estuary. US EPA, \$230,000, 2000-2004. LA Totten, SJ Eisenreich, T Holsen.

### **Consulting projects**

Baron and Budd Law Firm (2017-present): Expert witness in various lawsuits including City of Spokane and State of Washington versus Monsanto.

Washington State Department of Ecology and EPA under subcontract to Leidos (2016): Evaluate And Conduct Factor Analysis On PCB Data From The Green/Duwamish River County of Spokane, WA under subcontract to Brown and Caldwell (2014): Source apportionment of PCBs and BDEs in the wastewater of Spokane.

New York Academy of Science (2010): Evaluation of on-going sources of organic contaminants to the lower Passaic River.

New York Academy of Science (2005): Mass balance on PAHs in the New York/New Jersey Harbor

New York Academy of Science (2004): Mass balance on PCBs in the New York/New Jersey Harbor

### **STUDENT ADVISING**

#### **PhD students (primary advisor):**

Amy A. Rowe, PhD completed 2006. Interactions Of Polychlorinated Biphenyls With The Air, Water, And Sediments Of The Delaware River Estuary. Amy is tenured as the Cooperative Extension Agent in Passaic County for the Rutgers New Jersey Agricultural Experiment Station.

Songyan Du, PhD completed 2008. Source Apportionment and Measurement of PCBs and POPs in NY/NJ Area. Songyan works for the NJ Department of Health measuring PCBs in human blood and other samples.

Archil Zarnadze, PhD completed 2010. Poly-Brominated Diphenyl Ethers (PBDEs) in the Air and Water of the NY/NJ Harbor and in the Air of Philadelphia/Camden Area.

Andy L. Sandy, PhD completed 2010. The Application of a Micrometeorological Technique to Measure Air-Water Exchange of Polychlorinated Biphenyls.

Jia Guo, PhD completed 2013. Fate and Transport of Polychlorinated Biphenyls in the Air, Water, and Sewers of the Delaware River Basin.

Pornsawai Praipipat, PhD 2014. Source Apportionment of Polychlorinated Biphenyls in New Jersey air and Delaware River sediments.

Staci L. Capozzi, PhD completed 2016. Using Positive Matrix Factorization to Investigate Microbial Dechlorination of Contaminants in Groundwater.

**MS students (primary advisor):**

Dawn Cacia, MS completed 2010. Statistical Analysis of Atmospheric Polychlorinated Biphenyl Concentrations at Two Urban Locations.

Gerald Rustic, MS completed 2011. PAH contamination in the sediments of the Arthur Kill.

Yashika Dewani, MS completed 2016. Dechlorination of Polychlorinated Dibenzo-p-Dioxins in the Watershed of The New York/New Jersey Harbor.

**Non-thesis MS students (primary advisor):**

Maya Panangadan (MS completed 2004)

Steven J. Wall (MS completed 2006)

Hye-Nah Yoo (MS completed 2015)

Nicholas Morgan (MS completed 2015)

**Thesis/Dissertation committees:**

Dana Armstrong (PhD expected 2018 in Civil and Environmental Engineering, UMD College Park)

Kelly Francisco (PhD 2016)

Hang Dam (PhD 2016)

Lauren Weisel (MS Marine Science, 2015)

Rouzbeh Tehrani (PhD in Civil and Environmental Engineering 2013, Temple University)

Nathan Howell (PhD in Civil and Environmental Engineering 2012, University of Houston)

Il Kim (PhD 2009)

Derek Wright (PhD 2008)

Lora Smith (PhD 2008)

Samriti Sharma (PhD 2007)

Andrea Polidori (PhD 2005)

Sathyapriya Thota (MS in Civil and Environmental Engineering 2004)

Yan Zhuang (PhD 2004)

Dan Salvito (PhD 2003)

Rosalinda Gioia (MS 2003)

Shu Yan (MS 2003)  
Cheng-Wei Fan (PhD 2002)

**Undergraduate interns (partial list)**

GHC = George H. Cook Honors Thesis

ISR = Intro to Scientific Research course part of the Douglass Project for Women in STEM

|                         |                          |                  |
|-------------------------|--------------------------|------------------|
| Ady Miretsky            | Brittney Blackburne (ISR | Lea Perez (GHC)  |
| Alden Adrion            | and GHC)                 | Masrur Alam      |
| Alex Anderson (ISR)     | Chris Schaufele          | Matt Columbo     |
| Alexis Uram (ISR)       | Daniel Frier             | Mindaugus Rimkus |
| Anthony Murphy          | Dawn Cacia               | Nicole Oseagulu  |
| (ARESTY and GHC)        | Erin Mayfield            | Rebekka Reider   |
| Anthony DeCristofano    | Farah Mahmud             | Robert Pawle     |
| Anton Woronczuk         | Harini Sadeeshkumar      | Sabah Mahmud     |
| (ARESTY)                | Huibin Luo (GHC)         | Shiqi Wu         |
| Ashtyn Greenstein (ISR) | Hye Na Yoo               | Steve Wall       |
| Athina Ramadanis        | John Lisowski (ARESTY)   | Zachary Bakhtin  |
|                         | Kerry Jade Manzano       |                  |

**High school students (science fair projects and other research):**

**Thomas Kreisel** – triclosan in drinking water – Thomas won the New Jersey Stockholm Junior Water Prize for this research.

**William Zupko** – trace metals in sediment samples from Woodbridge Creek

**Bryan Schwab** - brominated flame retardants in indoor and outdoor air

**Sarah Tanner** – source apportionment of PCBs in the sediment of the NY/NJ Harbor

**Mitchell Booth** – VOCs emitted from crumb rubber mulch (Liberty Science Center Partners in Science program)

**Rachel Ruben** – designing a drinking water treatment system for developing countries

**Andrew Baskharon** – phytoremediation of malathion

**Mikel Byers** (Nixon-Smiley High School, Nixon, TX) – water quality impacts of hydraulic fracturing

**Ricardo Rivera** – Biodegradation of BDEs (Liberty Science Center Partners in Science program) 2014

**Kartik Bhardwaj** – Source apportionment of PCBs in San Francisco Bay (Liberty Science Center Partners in Science program) 2015

**Nishita Sinha** – migration of fecal coliform out of a novel sand pit toilet in India 2015.

This research has earned multiple awards:

- Recipient of the National Stockholm Junior Water Prize (after winning the State competition). The award includes \$10,000 and an all-expenses paid trip to the World competition in Stockholm, Sweden.
- Ms. Sinha has been selected for the 2016 MIT summer Research Science Academy, a highly selective program
- Arizona State University Walton Sustainability Award
- Theobald Smith Society Award in Microbiology

- National Oceanic and Atmospheric Administration (NOAA) Pulse of the Planet Award
- NJ Water Environment Association Award
- International Sustainable World (Energy, Engineering, and Environment) Project (ISWEEEP) Sustainable World Award
- Honorable mention at the International Sustainable World (Energy, Engineering, and Environment) Project Olympiad in Houston, Texas
- Fourth Place Oral Presenter at the regional Junior Sciences and Humanities Symposium at Rutgers (JSHS).