

Anthony Carpi

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RECENT PROFESSIONAL EXPERIENCE

Associate Provost and Dean of Research 8/12-present

John Jay College, the City University of New York (Interim 8/12-6/14)

Major Accomplishments:

- Overseen growth in external grant funding to the College by 58% in just 4 years.
- Created programs that have increased College's scholarly productivity by >17% in 3 years.
- Expanded visibility of College's research mission to internal and external constituents by creating an annual report, magazine of research operations, and other outreach.

Chair, Department of Sciences 12/09-01/11

John Jay College, the City University of New York (Deputy Chairperson: 2007-2009)

Major Accomplishments:

- Increased the Department budget by >80% based on performance.
- Expanded Department research space almost 4-fold within a 4-year period.
- Led over 13 searches between 2004 - 2010 that expanded the Department's research faculty 5-fold and shifted demographics from 29% female to 48% female.
- Chaired an *Outcomes Assessment* effort that rewrote the Department's mission statement and created program learning goals to focus on student success and research training.
- Implemented monitoring of enrollment histories toward better predicting course needs and maximizing staff efficiencies; implemented standards-based adjunct faculty evaluation.

Professor of Environmental Chemistry & Toxicology 9/97-present

John Jay College, the City University of New York (Tenured: 2002; Associate: 2003; Full: 2009)

Major Accomplishments:

- Mentored >44 students including 17 who have gone on to the Ph.D./M.D.
- Top grant winner in the Department, and among the top 1% at the College.
- PI of nationally recognized research in environmental chemistry and science education.
- Completely revised the curriculum, laboratory, and assessment of the core general education science course to focus on scientific literacy and the process/nature of science.
- Created four new undergraduate & graduate courses.

Founder and Director 9/06-present

PRISM – The Program for Research Initiatives for Science Majors at John Jay College

Major Accomplishments:

- Established the first undergraduate research program at the College using 100% external funding. Program now supports training, stipends, supplies, and travel for ~45 students/yr.
- Catalyzed a 3-fold increase in science retention and graduation rates and a 10-fold increase in the number of students moving on to post baccalaureate degrees in science.
- Inspired the creation of a college-wide research symposium and Office of Undergraduate Research (est. Sept. 2010).

Founder and President 6/99-present

Visionlearning - <http://www.visionlearning.com>

Major Accomplishments:

- Created a nationally recognized online education project to support interdisciplinary science teaching. Traffic averages ~400,000 visitors per month.

EDUCATION

Ph.D. Environmental Toxicology, 1997 Cornell University
Dissertation: Mercury Chemistry at the Soil/Atmosphere Interface

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| MS | Environmental Toxicology, 1993 Thesis: Biological Monitoring for Airborne Mercury Pollution | Cornell University |
| BS | Chemistry, 1986 Thesis: Gas-Phase Reaction Kinetics of Organofluorides | Boston College |

AWARDS & HONORS

Fulbright Scholar (2011)

U.S. Department of State – awarded to study the effect of slash and burn deforestation on the emission of mercury from Amazonian soils and its impact on human health, invited by Anne Helene Fostier, University of Campinas, Campinas, Brazil, August 2011 – February 2012.

Presidential Award for Excellence in Science, Math & Engineering Mentoring (2011)

The White House - presented to individuals whose work has “gone above and beyond the call of duty to ensure ... the educational enrichment and personal growth of their students,” presented by President Barack Obama, January 27.

Outstanding Mentor Award (2011)

John Jay College - awarded to an individual who has provided exemplary leadership in student mentoring, presented by the College Provost.

Outstanding Service to Students Award (2009)

John Jay College - awarded to an individual who has provided exemplary leadership in their service to students, presented by the College.

Science and Engineering Visualization Challenge Award (2006)

NSF & AAAS – Honorable mention for Interactive Educational Material: *Dalton’s Playhouse*.

FUNDED GRANT AWARDS

Carpi, A., Sanabria-Valentin, E. *Fostering retention of junior scholars in science*.
7/15-8/16. \$259,429

New York Education Department, Collegiate Science and Technology Entry Program

Expected Accomplishments: Expand our successful undergraduate mentoring program to the first two-years by creating a PRISM Junior Scholars program..

Carpi, A., Brown, G. *A mechanistic investigation of the reduction and volatilization of mercury contaminants in soil at the Oakridge Y-12 National Security Complex*. 8/15-8/16. \$254,848

U.S Department of Energy, through Savannah River Nuclear Solutions, # 0000217397

Expected Accomplishments: Identify the mechanisms of reduction of HgCl₂ and HgO towards providing remediation recommendations.

Carpi, A., Szur, K. *A Success Pipeline for Hispanic Students: Cohort Identity and Learner-Centered Curriculum*, 10/14-9/19. \$3,068,261

U.S Department of Education, Title V Cooperative Development Program, Award #P031S140088

Expected Accomplishments: Create joint resources to support student cohort identity and academic progress, and a shareable learner-centered curriculum for developing research skills.

Carpi, A., Lents, N. *Creating Hispanic Scientists: A Model Science Articulation Program between Hispanic-Serving Institutions*, 10/11-9/16. \$3,834,727

U.S Department of Education, HSI-STEM Program, Award #P031C110174

Expected Accomplishments: Develop a series of resources to improve instruction in chemistry and biology; build a virtual advisement system for supporting science transfers; initiate a series of activities to engage transfer students toward promoting retention and articulation.

Carpi, A., Szur, K. *Success through Engagement: Promoting undergraduate research and first-year experience toward increasing student persistence*, 10/10-9/15. \$3,223,337

U.S Department of Education, Title V Institutional Development Program, #P031S100038

- Major Accomplishments: Developed lower level course curriculum to focus on critical thinking and reasoning skills; promote a college-wide undergraduate research experience; expand a first-year transition experience program.
- Lents, N., Carpi, A. *Program for Research Initiatives for Science Majors*, 10/10-9/13. \$599,411
U.S. Department of Education, MSEIP Program, Award #P120A100006
Major Accomplishments: Expanded a highly successful undergraduate research mentoring program.
- Carpi, A., Friedland, D., Lents, N. *A 2-yr/4-yr College Partnership in Science*, 10/08-9/10. \$608,815
U.S. Department of Education, CCRAA w/Borough of Manhattan Community College.
Major Accomplishments: Supported expansion of the Forensic Science Justice Academy through course development and curriculum transfer.
- Carpi, A., Egger, A. *Teaching the Process of Science*, 10/06-9/10. \$599,870
U.S. Department of Education, Fund for the Improvement of Postsecondary Education
Major Accomplishments: Created a nationally recognized program for instruction in the nature and process of science. Developed a series of free web and print resources for instructional support.
- Carpi, A., Szur, K., Kobilinsky, L., McCullough, D. *A Program for Articulating Community College Students to B.S. Degrees in Science*, 10/06-9/11. \$3,464,660
U.S. Department of Education, Title V Cooperative w/Queensborough Community College, Award #P031S060030
Major Accomplishments: Established a Forensic Science articulation program that was institutionalized and expanded via the creation of the CUNY Justice Academy. Revised and aligned curriculum in the foundation science courses, developed a series of advisement materials to support student retention, expanded undergraduate research, expanded peer mentoring activities.
- Carpi, A., Frei, A. *The Terrestrial Mercury Cycle and Climate: Measuring and Modeling the Impact of Global Change*, 8/05-7/07. \$66,010
Research Foundation of CUNY, Collaborative Research Incentive Award
Major Accomplishments: Started a field monitoring site for mercury cycling at the Blackrock Research Forest. Three publications and five peer-reviewed presentations.
- Carpi, A. *Visionlearning: Building a National Web-Learning Community for Interdisciplinary Science Education*, 3/02-2/05. \$498,000
National Science Foundation, Division of Undergraduate Education
Major Accomplishments: Created a freely available collection of materials for interdisciplinary science teaching now used nationally.
- Kobilinsky, L., Carpi, A., Rothchild, R., Flores, N. *Promoting the Success of Students in Science*, 10/01-9/06 \$2,150,000
U.S. Department of Education, Office of Postsecondary Education, Award # P031S010021
Major Accomplishments: Created the *Math & Science Resource Center* – the first science tutoring program at the College, since institutionalized as a result of its success in improving retention.
- Kobilinsky, L., Carpi, A., Rothchild, R. *Improving Undergraduate Retention*, 10/01-10/04 \$285,336
U.S. Department of Education, Minority Science & Engineering Improvement Program
- Carpi, A. *Proof of a Textbook-Free Learning Community: Visionlearning*, 12/00-11/01 \$75,000
National Science Foundation, Division of Undergraduate Education
- Carpi, A. *Instrumentation for Mercury Analysis*, 12/99 \$43,790
Research Foundation of CUNY, Research Development Award
- Carpi, A. *An Assessment of Mercury in Municipal Sewage Sludge Applied to Land*, 9/95 \$54,000
U.S. Environmental Protection Agency, STAR Research Grant
- New York State**, Graduate Research & Technology Equipment Grant Initiatives
 Carpi, Lents, Cheng, Reffner “New methods in microscopy and trace analysis,” 8/11 \$275,657
 Carpi, Kobilinsky “Structural determination analysis techniques,” 8/10 \$301,150

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| Carpi, Kobilinsky, Grose-Fifer “New laboratories for scientific research,” 8/09 | \$250,000 |
| Carpi, Kobilinsky, Proni “Development of cell culture research facility,” 8/08 | \$150,000 |
| Carpi, Kobilinsky “Development of a Mobile Lab for Climate Change Research,” 8/07 | \$109,501 |
| Carpi, Kobilinsky, Salane “Trace Speciation of Environmental Pollutants,” 8/06 | \$124,725 |
| Carpi, Kobilinsky, Salane “Solid State Chemistry,” 7/05 | \$81,995 |
| Carpi, Kobilinsky, Salane “Improving Forensic Toxicology Capabilities,” 6/04 | \$127,299 |
| Carpi, Kobilinsky, Salane “ICP-MS for Trace Elemental Analysis,” 7/03 | \$163,200 |
| Rothchild, Carpi, Kobilinsky, Salane “Science & Technology Instrumentation,” 7/02 | \$161,689 |
| Carpi, Rothchild, Kobilinsky “Improvements in Web-Based Instruction,” 8/01 | \$6,005 |
| Carpi “Mercury Transport and Deposition in New York State,” 6/00 | \$18,299 |
| Kobilinsky, Rothchild, Carpi “Instrumentation for Forensic Analysis” 5/99 | \$83,060 |

Professional Staff Congress of CUNY, Research Award

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| Carpi “Detecting Estrogenic Compounds in Drinking Water,” 6/02-6/03 | \$4,498 |
| Carpi “Mercury Deposition to Critical Waters in New York State,” 6/00-6/02 | \$10,498 |
| Carpi “Microsporidia in Drinking Water: Methods for Analysis,” 2/98-6/00 | \$10,133 |

COURSE DEVELOPMENT & TEACHING EXPERIENCE

Origins: A Trek through 13.7 Billion Years of History (SCI 101) - John Jay College. (2010-2012)

Major Accomplishments: Designed original curriculum for the core, non-major, general education science course at the College. The course introduces basic chemical and biological principles in context of the origins of the universe, Earth, and life, and focuses on the process of scientific discovery.

Undergraduate Research Internship (FOS 402) – John Jay College. (2006-present)

Major Accomplishments: Created a faculty-mentored, capstone research course for students interested in careers in scientific research.

Introduction to Science in Society (NSC 107) - John Jay College. (1999-2009)

Major Accomplishments: Completely rewrote the curriculum for a large, non-major, lecture/lab science course that introduces scientific process, and basic chemical and biological principles. Produced a series of web-based tutorials that resulted in a significant reduction in course attrition rates (Carpi, *J. Chem. Ed.* 78:1709), and led to a national program for interdisciplinary teaching.

Forensic Investigations in the Environmental Sciences (FOS 806) - John Jay College. (2002, 04, 08)

Major Accomplishments: Developed the curriculum and all teaching materials for a graduate-level course in a novel subject area.

Life Under the Microscope: The Intersection of Science & Social Science (TSP5) - John Jay College.

Major Accomplishments: Co-created (w/A. Stein) an honors-level, non-major science course that discussed the philosophy of scientific breakthroughs and the psychology of scientific thought.

General Chemistry I (CHE 101) - John Jay College. (2008)

Major Accomplishments: Modernized curriculum in freshman majors course.

Principles of Environmental Science (ENV 108) - John Jay College. (1998-2005)

Major Accomplishments: Completely rewrote the curriculum (w/M. Zedeck) of a non-major, core lecture and laboratory science course to focus it on modern toxicological concepts.

Science Department Research Seminar Series - John Jay College. (1999-2006)

Major Accomplishments: Created, organized and self-funded a biweekly, research seminar series for seven years that was later institutionalized at the College.

Analytical Toxicology (TOX 416) - John Jay College. (2004)

Major Accomplishments: Taught advanced undergraduate science majors laboratory course.

Toxicology of Environmental and Industrial Agents (TOX 313) - John Jay College. (2000-2002)

Major Accomplishments: Modernized the curriculum of an undergraduate science majors course.

Mountaineering/Canoeing – Cornell University Outdoor Education Department. (1994-1996)

Co-developed (w/I. Saxer) an outdoor education course still taught at the University.

PREVIOUS RESEARCH/EDUCATION APPOINTMENTS

- Founder & Director** 2002-2007
The Math & Science Resource Center - <http://www.jjay.cuny.edu/academics/592.php>
• Executive committee member of a multi-university, Internet-based Hispanic education community.
- Educational Coordinator** 10/98-10/01
The Hispanic Education Telecommunication System - <http://www.virtualplaza.org>
• Executive committee member of a multi-university, Internet-based Hispanic education community.
- Research Fellow - Environmental Chemistry** 3/95-9/95
Oak Ridge National Laboratory
• Trained in ultra-clean, field sampling and analytical techniques for inorganic and methyl-mercury.
- Research Fellow - Risk-Assessment** 5/93-8/93
U.S. Environmental Protection Agency
• Trained in current methods for human and ecological health risk assessment.
- Air Pollution Control Engineer** 1/88-8/90
Department of Environmental Protection, State of Connecticut
• Enforced state & federal air pollution regulations through industry inspection and engineering studies.
- Research Assistant - Biochemistry** 6/81-8/81
University of Connecticut Medical Research Center
• Investigated the response of mice T-cell Leukemia lines to inhibitory drugs.

OTHER ACTIVITIES

College Service: College Personnel & Budget Committee (2009-2011, 2012-present), Chair - Associate Provost for Institutional Effectiveness Search Committee (2009), College General Education Taskforce (2007-2011), Science Coordinator – Forensic Science Partnership Program (2006-2009), Departmental P&B Committee (2003-2008), Technology/Education Technology Committees (1999-2009), College Honors Program Committee (2006-2007), John Jay Institutional Review Board (1999-2003), College Curriculum Committee (2000-2003), Faculty Senate (1998-2000).

Editorial Board: *Environmental Forensics*, Academic Press, Harcourt, Inc. (2000-2002).

Reviewer: National Science Foundation PAESMEM Program, National Science Foundation Division of Undergraduate Education, U.S. Civilian Research grant program, *Air Quality & Environmental Health*, *Atmospheric Environment*, *Environmental Science & Technology*, *Journal of Environmental Quality*, *Pedosphere*, *Science of the Total Environment*, *Water, Air, & Soil Pollution*, *Chemosphere*.

Professional Memberships: Council on Undergraduate Research, American Chemical Society, American Association for the Advancement of Science, NY Academy of Sciences, Society of Environmental Toxicology and Chemistry, National Science Teachers Association.

Other: Father: John - Feb. 2006, Carina - Mar. 2008, Aidan – July 2013, Cycling/hiking enthusiast, Avid Web Developer.

PUBLICATIONS

- Carpi, A., Ronan, D.M., Falconer, H.M., Lents, N.L. (expected 2016) "Cultivating Minority Scientists: Undergraduate Researcher Increases Self-Efficacy and Career Ambitions for Underrepresented Students in STEM," *Journal of Research in Science Teaching*, accepted with revision, 2016.
- Carpi, A., Ronan, D. (2014) "Do Not Neglect the Ladder of Opportunity at Minority-Serving Colleges," *The Chronicle of Higher Education*, *Commentary*, November 24, 2014.
- Carpi, A., Fostier, A.H., Santos, J.C., Gittings*, M., Orta*, O.R. (2014) "Mercury emissions from soil following the loss of forest cover in the United States and Brazil," *Atmospheric Environment*, 96:423-429. <http://www.sciencedirect.com/science/article/pii/S1352231014005962>.
- Melendez-Perez, J.J., Fostier, A.H., Carvalho, J.A., Winmoller, C.C., Santos, J.C., Carpi, A. (2014) "Soil and biomass mercury emissions during a prescribed fire in the Amazonian rain forest," *Atmospheric Environment*, 96:415-422. <http://www.sciencedirect.com/science/article/pii/S1352231014004786>
- Carpi, A., Lents, N.L. (2013) "Research by Undergraduates Helps Underfinanced Colleges as well as Students," *The Chronicle of Higher Education*, *Diversity in Academe*, October 28, 2013.
- Carpi, A., Ronan, D.M., Falconer, H.M., Boyd, H.H., Lents, N.L. (2013) "Development and Implementation of Targeted STEM Retention Strategies at a Hispanic-Serving Institution," *Journal of Hispanic Higher Education*, 12(3):280-299.
- Egger, A. E. and Carpi, A., (2013) *Revealing data in science: Using and teaching about data-based graphics for analysis and display*, pg. 211-238, in Finson, K. D. and Pederson, J., eds., Visual Data and its Use in Science Education; Charlotte, NC: Information Age Publishing
- Carpi, A., Schweighardt*, A. (2012) *Environmental Forensic Chemistry*, in Kobilinsky, L. (ed.) (2012) Forensic Chemistry Handbook. J. Wiley, Hoboken, NJ.
- Quinones*, J.L., Carpi, A. (2011) "An investigation of the kinetic processes influencing mercury emissions from sand and soil samples of varying thickness," *Journal of Environmental Quality*, 40:647-652.
- Lents NH, Cifuentes OE, and Carpi A. (2010) "Teaching the Process of Molecular Phylogeny and Systematics: A Multi-part Inquiry-based Exercise." *CBE: Life Sciences Education* 9(4):513:523.
- Maclair*, C., Layshock*, J., Carpi, A. (2008) "Quantifying the Effect of Humic Matter on the Suppression of Mercury Emissions from Soil," *Applied Geochemistry*, 23(3):594-601.
- Carpi, A., Frei, A., Cocris*, D., McCloskey*, R., Contreras*, E., & Ferguson*, K. (2007) Analytical artifacts produced by a polycarbonate chamber compared to a Teflon chamber for measuring surface mercury fluxes, *Analytical & Bioanalytical Chemistry*, 388(2):361-365.
- Moore*, C., Carpi, A. (2005) "Mechanisms of the emission of mercury from soil: The Role of UV radiation," *Journal of Geophysical Research*, 110(24):D24302.
- Haidermota*, U.S., Nguyen, P.V, Smalligan, M.J, Carpi, A. (2004) "The effect of trees (*Poplar nigra*) on soil mercury fluxes," *Materials and Geoenvironment*, 51(2):897-900.
- Carpi, A., Mikhailova, Y. (2003) "The Visionlearning Project: Evaluating the Design and Effectiveness of Interdisciplinary Science Web Content," *J. College Science Teaching* 23(1):12-15.
- Carpi, A. (2003) "Designing Effective Instructional Web Pages," in Simon, E. J. (ed.) *Teachers Using Technology: Practical Ideas from the Classroom*, Kluwer Academic, New York.
- Carpi, A., Chen*, Y. (2002) "Gaseous Elemental Mercury Fluxes in New York City," *Water, Air & Soil Pollution* 140(1-4):371-379.

* Denotes student co-author.

- Carpi, A., Chen*, Y. (2001) "Gaseous Elemental Mercury as an Indoor Air Pollutant," *Environmental Science & Technology* 35(21):4170-4173.
- Carpi, A. (2001) "Improvements in Undergraduate Science Education Using Web-Based Instructional Modules: The Natural Science Pages," *J. Chemical Education* 78(12):1709.
- Carpi, A., Mital*, J. (2000) "The Expanding Use of Forensics in Environmental Science," Feature Article – *Environmental Science and Technology* 34(11):262A-266A.
- Carpi, A., Lindberg, S.E. (1998) "Application of a Teflon Dynamic Flux Chamber for Quantifying Soil Mercury Flux: Tests and Results over Background Soil," *Atmospheric Environment* 32(5): 873-882.
- Carpi, A., Lindberg, S.E. (1997) "The Sunlight Mediated Emission of Elemental Mercury from Soil Amended with Municipal Sewage Sludge," *Environmental Science and Technology* 31(7): 2085-2091.
- Carpi, A., Lindberg, S.E., Prestbo, E.M., Bloom, N.S. (1997) "Methyl Mercury Contamination and Emission to the Atmosphere from Soil Amended with Municipal Sewage Sludge," *Journal of Environmental Quality* 26(6): 1650-1654.
- Carpi, A. (1997) "Mercury from Combustion Sources: A Review of the Chemical Species Emitted and Their Transport in the Atmosphere," *Water, Air and Soil Pollution* 98:241-254.
- Opsomer, J.D., Agras, J., Carpi, A., Rodrigues, G. (1995) "An Application of Locally Weighted Regression to Airborne Mercury Deposition around an Incinerator Site," *Environmetrics*, 6(2):205-219.
- Carpi, A., Ditz, D.W., Weinstein, L.H. (1994) "Bioaccumulation of Mercury by Sphagnum Moss near a Municipal Solid Waste Incinerator," Feature Article - *Journal of the Air and Waste Management Association*, 44(5): 669-672.
- Carpi, A., Ditz, D.W., Waldman, J., Greenberg, A., Weinstein, L.H. (1992) "Biological Monitoring Around a Municipal Solid Waste Incinerator in Rural New Jersey", the proceedings of the *85th Annual Meeting of the Air and Waste Management Association*.
- Ditz, D.W., Carpi, D., Weinstein, L.H. (1991) "Interpreting Biological and Ambient Air Monitoring Data near Municipal Solid Waste Incinerators", the proceedings of the *84th Annual Meeting of the Air and Waste Management Association*.

BOOKS AND MANUALS

- Carpi, A., Egger, A. (2011). The Process of Science. Visionlearning, Inc, New York, NY.
- Carpi, A., Egger, A., Rosenberger, A. (2009) Natural Science, 5th Edition. Kendall-Hunt, Dubuque, IA.
- Carpi, A., Bailey, W. (2005) Natural Science Laboratory Manual. Kendall-Hunt, Dubuque, IA.

KEYNOTE ADDRESSES, MAJOR INVITED TALKS AND CONFERENCE CHAIRMANSHIPS

- Carpi, A., Lents, N., Rauceo, J., Cheng, S.Y. "Undergraduate Research Mentoring: Best Practices," Breakout Session at the CUNY Community College Research Program Faculty Development Workshop, New York, NY, January 13, 2016.
- Carpi, A. "The Scholarship of Teaching and Learning: Conducting Research to Improve Teaching Effectiveness," Inaugural Research Conference, Hostos Community College, Bronx, NY, March 21, 2014
- Carpi, A. "Deep Mentoring of Undergraduate Researchers: PRISM," Inaugural CUNY Undergraduate Research Council Luncheon, New York, NY, March 7, 2014.
- Carpi, A. "The Scholarship of Teaching and Learning," 9th Annual CUE Conference – Transformations in Teaching & Learning, CUNY, New York, NY, May 10, 2013.
- Carpi, A. "From Science Fair to Scientist: Meandering to the Amazon," Keynote Speaker: New York City Science & Engineering Fair – Finalist Round, American Museum of Natural History, NY, March 27, 2012.

- Carpi, A. "Mercury Rising: Global Mercury Levels and the Amazon," Serving Science – The CUNY Science Café, New York, NY, March 5, 2012.
- Carpi, A. "Science Content vs. Practice: Overcoming Misconceptions about Science in the Classroom," Plenary Speaker: Science Education in the 21st Century Special Conference, City University of New York, New York, NY, April 23, 2010.
- Egger, A., Carpi, A., Manduca, C. Teaching the Process of Science. Workshop Convener and Co-Chair, Sponsored by the U.S. Department of Education FIPSE program and the National Science Foundation, Carleton College, Northfield, MN, July 14-16, 2009.
- Carpi, A. "Did Goldilocks Kill the 3 Bears: The use of forensic science in investigating environmental crimes," Keynote Speaker: Long Island Chemical Society Annual Meeting, Nassau Community College, Garden City, NY, December 4, 2008.
- Carpi, A., Kobilinsky, L. Forensic Chemistry. Session Chairs, Mid-Atlantic Meeting of the American Chemical Society, Queens, NY, May 18, 2008.

PEER-REVIEWED PUBLICATIONS FEATURING WORK

- MacLachlan, E.S., Caplan, A.J. (2015) "Fostering resources for undergraduate research at the City University of New York," *New Directions for Higher Education*, 2015(169):73-83.
<http://onlinelibrary.wiley.com/doi/10.1002/he.20124/full>

ORAL PRESENTATIONS & ABSTRACTS

- Ronan, D., Carpi, A. "Undergraduate Research Experience and Changes in Career Ambitions for Underrepresented Students in STEM," Annual Meeting of the National Association for Research in Science Teaching, Baltimore, MD, April 17, 2016.
- Mann, E., Khusial*, R. Carpi, A. "A mechanistic investigation of the reduction and volatilisation of mercury in soil," 250th Annual Meeting of the American Chemical Society, San Diego, CA, March 15, 2016.
- Carpi, A., Lents, N., Rauceo, J., Cheng, S.Y. "Undergraduate Research Mentoring – Best Practices from a Successful Example," CUNY Community College Research Program Faculty Development Workshop, New York, NY, January 13, 2016.
- Brown, G., Carpi, A. "Overview of the biogeochemical cycling of mercury in environment sources," NOAA-Center of Excellence in Remote Sensing Science and Technology, The City College of New York, New York, NY, November 3, 2014.
- Carpi, A. "Open, Global, and Mobile Learning: Online Science Resources for a Changing Technology Landscape," Online Learning Consortium Annual Conference, Orlando, FL, October 29, 2014.
- Falconer, H., Lents, N.L., Carpi, A. "Adapting to student needs in the science classroom: The Visionlearning Project," HETS 2014 Best Educational Practices Showcase, San Juan, Puerto Rico, January 16, 2014.
- Falconer, H., Carpi, A. "Addressing Student and Teacher Needs in the Science Classroom: The Visionlearning Project," Association for Science Teacher Education, Northeast Regional Meeting, Cornwall, NY, October 18, 2013.
- Orta*, O., Fostier, A. H., Carpi, A. "Deforestation Leads to Chronic Soil Mercury Emissions," 11th International Conference on Mercury as a Global Pollutant, Edinburgh, Scotland, July 28 - August 2, 2013.
- Carpi, A., Lents, N. L., Falconer, H. "Creating Hispanic Scientists: Increasing Minority Engagement in the Sciences," Higher Education Programs (HEP) Project Directors' Meeting, U. S. Department of Education, Washington, DC, March 26-28, 2013.

- Carpi, A. "Understanding the Role of Soil Chemistry on the Cycling of Mercury in the Environment" Invited Lecture, Lehman College, Bronx, NY, March 4, 2013.
- Carpi, A., Ho*, A., Frei, A. "Temporal and regional variation in mercury deposition in New York State and implications for climate-related changes," 2nd Catskill Environmental Research & Monitoring Conference, Highmount, NY, October 26, 2012.
- Carpi, A., Falconer, H., Lents, N.H. "Science Education in a Complex World: Adapting to Changes in Student Use of Online Material - the Visionlearning Project," 18th Annual Sloan Consortium Conference, Lake Buena Vista, FL, October 12, 2012.
- Carpi, A., Lents, N.H. "The Scholarship of Teaching and Learning: Making the Classroom a Laboratory of Learning," John Jay College Faculty Development Day Workshop, NY, NY, August 24, 2012.
- Lents, N.H., Carpi, A. "A Better Way to Teach Science," 14th Annual International Conference on Education, Athens Institute for Education and Research, Athens, Greece, May 22, 2012.
- Lents, N.H., Cifuentes, O.E., Carpi, A. "Visionlearning: Un Recurso Gratis para Enseñar la Ciencia que es Mejor que Usar Libros de Texto," Semanas Internacionales (International Seminar Series), Universidad Cooperativa de Colombia, Bogotá, Columbia, March 14, 2012.
- Lents, N.H., Carpi, A. "Promoting Success in Science Courses by Replacing Textbooks with Free Online Content," Second Annual Best Practices Showcase, Hispanic Educational Technology Services (HETS), San Juan, Puerto Rico, February 16, 2012.
- Carpi, A. "Understanding the Role of Soil Chemistry on the Cycling of Mercury in the Environment" Institute of Chemistry Seminar Series, University of Campinas, Campinas, Brazil, October 13, 2011.
- Lents, N.H., Carpi, A. "A Federally-funded Free Science Education Resource with Modular Functionality, Mobile Apps, and More." Lilly Conference on College and University Teaching, Traverse City, MI; September 24, 2011.
- Ho*, A., Carpi, A. "Mechanisms of the Reduction of Divalent Mercury," 10th International Conference on Mercury as a Global Pollutant, Halifax, Nova Scotia, July 24-29 2011.
- Lents, N.H., Carpi, A. "Visionlearning: A Free E-Resource for Science Education From The Process Perspective," The Clute Institute International Academic Conference; New Orleans, LA; March 14, 2011.
- Carpi, A., Lents, N. "Transforming a Technical Science Curriculum into a Major Research Program for Preparing Hispanic Scientists," Creating a Culture of Research on Campus workshop, sponsored by CUR & Council of Colleges of Arts & Sciences, College of William & Mary, Williamsburg, VA October 16, 2010.
- Egger, A., Carpi, A., Klemperer, S. "Teaching the Process—Not Just the Content—of Geoscience at All Levels," International Geoscience Education Organization Conference, Johannesburg, South Africa, August 30, 2010.
- Carpi, A., Lents, N. "Creating Hispanic Scientists: Transformation of a Technician-oriented Science Program through Undergraduate Research," 13th National Meeting of the Council on Undergraduate Research (CUR), Ogden, UT, June 20, 2010.
- Egger, A., Carpi, A. "Engaging New Audiences in Research by Teaching the Process of Science," Council on Undergraduate Education National Conference, Ogden, UT, June 20, 2010.
- Carpi, A. "Teaching Science: Overcoming Student Misconceptions about Science and Scientific Practice," Making Teaching Visible and Valued Workshop, Center for the Advancement of Teaching, John Jay College, New York, NY, April 30, 2010.
- Carpi, A. "Visionlearning: Building and online resource that focuses on teaching," Science Education in the 21st Century Special Conference, City University of New York, New York, NY, April 23, 2010.

- Carpi, A. "Teaching about Scientific Research and the Process of Science," National Science Teachers Association National Conference, Philadelphia, PA, March 19, 2010.
- Carpi, A., Lents, N. "Teaching to the Nature of Science Content Standards," Society of College Science Teachers National Meeting, Philadelphia, PA, March 18, 2010.
- Carpi, A. "Visionlearning: Building an online resource that focuses on teaching," Hispanic Education Telecommunication Symposium, Best Practices Showcase, San Juan, PR, January 15, 2010.
- Carpi, A., Lents, N. "Mentoring and Undergraduate Research to Increase Retention and Success of Minority Undergraduate Scientists," 23rd Annual Conference of the Hispanic Association of Colleges & Universities: Championing Hispanic Higher Education Success, Orlando, FL, November 2, 2009.
- Carpi, A., Lents, N., Egger, A. "Visionlearning: Building an open online learning environment for promoting the nature and practice of science" 15th Sloan-C International Conference on Online Learning: The Power of Online Learning - Opportunities for Tomorrow, Orlando, FL, October 30, 2009.
- Carpi, A. "Teaching the Process of Science Toward Engaging Students in Chemistry," 238th National Meeting of the American Chemical Society, Washington, DC, August 18, 2009.
- Carpi, A., Cocris*, D., Ho*, A., Petraco, N. "Mechanisms of the Reduction and Emission of HgCl₂ from Surfaces," 238th National Meeting of the American Chemical Society, Washington, DC, August 18, 2009.
- Carpi, A. "Assessing student understanding of the nature of science in a non-major science class," Teaching the Process of Science Workshop, Northfield, MN, July 16, 2009.
- Carpi, A., Frei, A. "Pathways of Mercury Transport in the Blackrock Forest Ecosystem," Sixth Black Rock Forest/Highlands Research Symposium, Cornwall, NY, June 22, 2009.
- Lents, N.H., Carpi, A. "Teaching the Process of Science in Evolution, Phylogenetics, and Natural Selection," 9th Quadrennial Conference of the National Association of Paleontology, Cincinnati, OH; 22-June 2009
- Carpi, A. "Adding Scientific Process to Chemistry Instruction" Mid-Atlantic Meeting of the American Chemical Society, Queens, NY, May 18, 2008.
- Carpi, A., Egger, A. "Teaching Scientific Process and the Nature of Science" Society of College Science Teaching at the National Science Teachers Association, Boston, MA, March 27, 2008.
- Carpi, A. "Predicting the Effect of Climate Change on Global Mercury Transport" Analytical Chemistry Symposium, University of Massachusetts Lowell, Lowell, MA, March 26, 2008.
- Lam*, B., He, Y., Carpi, A., Kobilinsky, L. "Determination and Speciation of Arsenic in Vegetables on Sale in New York City Using Inductively Coupled Plasma-Mass Spectrometry," Eastern Analytical Symposium, Somerset, New Jersey, November 12-15, 2007.
- Carpi, A. "Did Goldilocks Kill the 3 Bears: The use of forensic science in investigating environmental crimes," Invited Speaker: Chemistry Symposium, Queensborough Community College, Bayridge, NY, November 9, 2007
- Frei, A., Carpi, A., Filosa*, D., Ferguson*, K., Cherry, J. "Quantifying the Mercury Cycle at Black Rock Forest," Black Rock Forest / Highlands Research Symposium, Black Rock Forest, Cornwall, New York, USA, June 25-26, 2007.
- Cherry, J., Frei, A., Carpi, A., Schuster, B., Smerdon, J., Tremblay, B., Munson, M., Brady, J., Gong, G., "Research Station at Black Rock Forest: long-term monitoring and hydroclimatological research," Black Rock Forest / Highlands Research Symposium, Black Rock Forest, Cornwall, New York, USA, June 25-26, 2007.
- Cocris*, D., Frei, A., Carpi, A. "Evaluating the Role of Light on the Soil Mercury Emissions Process: A Comparison of the Emission of Divalent and Elemental Mercury," 8th International Conference on Mercury as a Global Pollutant, Madison, Wisconsin, August 5-11, 2006.

- Swenson, S., Carpi, A. "Teacher-Friendly Customization of a Science Curricular Website," Enriching the Academic Experience of College Science Students Conference, Ann Arbor, MI, May 17, 2006.
- Egger, A., Carpi, A. "Creating a customized, online science classroom: The Visionlearning project," National Meeting of the Society of College Science Teachers, at the National Science Teachers Association Conference, Anaheim, CA, April 9, 2006.
- Carpi, A., Egger, A. "Contextualizing Science: Targeting multiple learning styles by integrating research, history, current events and assessment into science education," American Chemical Society National Meeting, Philadelphia, PA, August 22, 2004.
- Carpi, A., Haidermota*, U., Nguyen, P., Smalligan, M. "The effect of trees (*Poplar nigra*) and UV radiation on soil mercury flux," 7th International Conference on Mercury as a Global Pollutant, Ljubljana, Slovenia, June 27, 2004.
- Carpi, A., Rosenberger, A., Egger, A. "Integrating Research, History, Current Events and Assessment into Interdisciplinary Science Education," National Science Foundation Conference on Invention and Impact: Building Excellence in Undergraduate STEM Education, Arlington, VA, April 16, 2004.
- Carpi, A. "Interdisciplinary Science Education: Innovations and Benefits," Brooklyn College Science Seminar Series, March, 2004.
- Carpi, A., Rosenberger, A. "Designing Effective Instructional Web Pages," CUNY Technology Forum, New York, NY, Nov. 14, 2003.
- Egger, A., Carpi, A. "Effective Use of Web-Based Resources," K-16 Educators Workshop no. 610, GSA (Geological Society of America) Annual Meeting, 2003.
- Carpi, A. "The Visionlearning Project: Using standards-based Web content to improve science comprehension," American Chemical Society National Meeting, Boston, MA, August 18-22, 2002.
- Carpi, A. "Gaseous Elemental Mercury as an Indoor Air Pollutant," U.S. EPA/NESCAUM 2002 Mercury Pollution Conference, Kennebunkport, ME, June 12-13, 2002.
- Carpi, A., Chen*, Y.-F. "Gaseous Elemental Mercury as an Indoor Air Pollutant," SETAC National Conference, Baltimore, MD, Nov. 15, 2001.
- Carpi, A., Uffen, R. "Proven Strategies for Course Content Development on the Web," *Syllabus* 2001, Boston, MA, November 29, 2001, <http://www.syllabus.com>.
- Carpi, A., Uffen, R., Mikhailova, Y. "The Visionlearning Project: Web-Based Science Education," *SchoolTechExp*, New York, March 28-30, 2001, <http://www.schooltechexpo.com/>.
- Carpi, A. "The Art of Web Design," *Faculty Development Day*, John Jay College, NY, March 30, 2001, <http://web.jjay.cuny.edu/~acarp/design/home.htm>
- Carpi, A. "Improvements in Science Education Using Web-Based Instructional Lessons," *Syllabus* 2000, Boston, MA November 30 – December 1, 2000 24-27, 2000, <http://www.syllabus.com>.
- Carpi, A. "Mercury: Environmental Cycling and Toxicological Concerns," Fourth Annual Conference on Environmental Issues, Medgar Evers College, Brooklyn, NY, March 13, 1999.
- Carpi, A., Lindberg, S.E. "Mercury Emissions from Background and Municipal Sewage Sludge-Amended Soil," *4th International Conference on Mercury as a Global Pollutant*, Hamburg, Germany, August 1996.
- Carpi, A. "Soil/Atmosphere Exchange of Elemental and Methylmercury: Mechanisms of Emission," *Environmental Toxicology Seminar Series*, Cornell University, Ithaca, NY, April 1996.
- Carpi, A. "The Fate and Chemistry of Mercury in Background and Municipal Sewage Sludge Amended Soil," *ORNL Environmental Sciences Division Seminar Series*, Oak Ridge National Laboratory, Oak Ridge, TN, August 1995.

- Carpi, A., Ditz, D., Weinstein, L. "Mercury Speciation at Municipal Solid Waste Incinerators: Plant Accumulation and Airborne Exposure," *3rd International Conference on Mercury as a Global Pollutant*, Whistler, BC, July 10-14 1994.
- Carpi, A. "The Accumulation of Mercury in Sphagnum Moss around a Municipal Solid Waste Incinerator," *Boyce Thompson Institute for Plant Research Seminar Series*, Ithaca, NY, November 1993.
- Carpi, A. "The Speciation and Transport of Mercury in the Atmosphere," *U.S. Environmental Protection Agency Seminar Series*, Washington, DC, August 1993.
- Carpi, A., Ditz, D., Weinstein, L. "Biological Monitoring Around a Municipal Solid Waste Incinerator in Rural New Jersey," *85th Annual Meeting of the Air & Waste Management Association*, Kansas City, MO, June 1992.
- Ditz, D., Carpi, A., Weinstein, L. "Interpreting Biological Monitoring Data Near Municipal Solid Waste Incinerators," *84th Annual Meeting of the Air and Waste Management Association*, Vancouver, BC, June 1991.

POSTERS & ABSTRACTS

- Peralta*, R., Mann, E., Carpi, A. (2016) "Using Moss as a Biomonitor to Detect Atmospheric Sources of Mercury," Annual Collegiate Science & Technology Entry Program (CSTEP) Conference, Lake George, NY, April 9, 2016.
- Carpi, A., Ronan, D. (2016) "Creating Minority Scientists: How Undergraduate Research Drives Changes in Career Ambitions for Students Underrepresented in STEM Disciplines," 8th Conference on Understanding Interventions that Broaden Participation in Science Careers, Philadelphia, PA, February 27, 2016.
- Peralta*, R., Mann, E., Carpi, A. (2015) "Using Moss as a Biomonitor to Detect Atmospheric Sources of Mercury," Annual Biomedical Research Conference for Minority Students, Seattle, WA, November 11-14, 2015.
- Rouse*, D., Carpi, A. (2015) "The Reduction Mechanism of Mercuric Oxide in the Environment," Annual Biomedical Research Conference for Minority Students, Seattle, WA, November 11-14, 2015.
- Brown, G. Jr., Ho*, A., Khusial*, R., Carpi, A. (2015) "A Mechanism for the Reduction of HgCl₂ on Environmental Surfaces," Society of Environmental Toxicology and Chemistry (SETAC) Europe 25th Annual Meeting, Barcelona, Spain, May 3-7.
- Khusial*, R., Carpi, A. "The Role of Temperature and UV Light in the Reduction of Mercury (II) Chloride to Elemental Mercury," 8th Annual PRISM Undergraduate Research Symposium, John Jay College, NY, April 29, 2015
- Teixeira*, C., Carpi, A. "Determining a Methodology for Quantifying Mercury in the Stems and Barbs of Bird Feathers," 8th Annual PRISM Undergraduate Research Symposium, John Jay College, NY, April 29, 2015
- Khusial*, R., Brown, G., Carpi, A. (2014) "The Role of Temperature and UV Light in the Reduction Of Mercury (II) Chloride to Elemental Mercury," Annual Biomedical Research Conference for Minority Students (ABRCMS), San Antonio, Texas, November 12-15.
- Teixeira*, C., McCormick*, C., Carpi, A. (2014) "Using Bird Feathers as Bio-monitors of Mercury in the Environment" Annual Biomedical Research Conference for Minority Students (ABRCMS), San Antonio, Texas, November 12-15.
- Yarde*, S., Carpi, A. (2014) "The Role of Water and pH in the Reduction of Mercury (II) Chloride to Elemental Mercury" Annual Biomedical Research Conference for Minority Students (ABRCMS), San Antonio, Texas, November 12-15.
- Adlam*, C., Carpi, A. "The Photo-reduction of Soil-bound Mercury Species in the Presence of Water," 7th Annual PRISM Undergraduate Research Symposium, John Jay College, NY, May 1, 2014

- Scarcella*, M., Carpi, A. "Mechanisms of the Reduction of Mercuric Oxide in the Environment," 7th Annual PRISM Undergraduate Research Symposium, John Jay College, NY, May 1, 2014
- Yarde*, S., Carpi, A. "Soil to Atmosphere Exchange of Mercury," 7th Annual PRISM Undergraduate Research Symposium, John Jay College, NY, May 1, 2014
- Khusial*, R., Carpi, A. "Mercury Transport in the Environment," 7th Annual PRISM Undergraduate Research Symposium, John Jay College, NY, May 1, 2014.
- Falconer, H., Egger, A.E., Carpi, A. "Content for Teaching to the Nature of Science Standards in the NGSS" Society for College Science Teachers Annual Meeting, Boston, MA, April 4, 2014.
- Scarcella*, M., Petraco, N., Carpi, A. "Mechanisms of the Reduction of Mercuric Oxide in the Environment," 34th Annual Meeting of the Society of Environmental Toxicology and Chemistry, Nashville, TN, November 21, 2013.
- Adlam*, C., Carpi, A. "The Photo-reduction of Soil-bound Mercury Species in the Presence of Water," Annual Biomedical Research Conference for Minority Students, Nashville, TN, November 15, 2013.
- Adlam*, C., Carpi, A. "The Photo-reduction of Soil-bound Mercury in the Presence of Water," 6th Annual PRISM Undergraduate Research Symposium, John Jay College, NY, May 3, 2013.
- Hui*, C., Cheng, S-Y, Carpi, A. "Effects of mercuric chloride on cell surface expression of dopamine transporter in PC12 cells," 52nd Annual Meeting of the Society of Toxicology, San Antonio, TX, March 10-14, 2013.
- Santos*, E., Carpi, A. "Decomposition and Flux of Mercury Species from Water," 5th Annual PRISM Undergraduate Research Symposium, John Jay College, NY, May 4, 2012.
- Lents, N.H., Carpi, A. "A Federally-funded Free Science Education Resource with Modular Functionality, Mobile Apps, and More," 17th Annual Sloan Consortium International Conference on Online Learning; Orlando, FL; November 9, 2011.
- Hui*, C., Carpi, A. "Mercury emissions from soil in response to simulated precipitation events," 10th International Conference on Mercury as a Global Pollutant, Halifax, Nova Scotia, July 24-29 2011.
- Gittings*, M., Carpi, A. "Forest Soil Mercury Fluxes Pre and Post Cover-Clearing in Upstate New York," 10th International Conference on Mercury as a Global Pollutant, Halifax, Nova Scotia, July 24-29 2011.
- Hui*, C., Carpi, A. "Mercury emissions from soil in response to simulated precipitation events," 4th Annual Prism Undergraduate Science Symposium, John Jay College, New York, NY May 13, 2011.
- Mayo-Perez*, A., Carpi, A. "The potential role of silicon dioxide as an oxidizing surface in strong sunlight: studies on Mercury behavior," 4th Annual Prism Undergraduate Science Symposium, John Jay College, New York, NY May 13, 2011.
- Egger, A., Carpi, A., Lents, N. "Understanding Theories: Explicitly Teaching the Process of Science to Address Common Student Misconceptions," Geological Society of America National Conference, Denver, CO, October 31, 2010, Abstracts Vol. 42(5):38.
- Mayo-Perez*, A., Carpi, A. "The Potential Role of Silicon Dioxide as an Oxidizing Surface in Strong Sunlight: Studies on Mercury Behavior," American Chemical Society Annual Meeting 2010, Boston, MA, August 22-26, 2010.
- Mayo-Perez*, A., Carpi, A. "The Potential Role of Silicon Dioxide as an Oxidizing Surface in Strong Sunlight: Studies on Mercury Behavior," 3rd Annual PRISM Undergraduate Research Symposium, John Jay College, New York, NY, May 7th, 2010.
- Hui*, C., Carpi, A. "Mercury Emissions from Sand and Soil Surfaces in Response to Precipitation Events," 3rd Annual PRISM Undergraduate Research Symposium, John Jay College, New York, NY, May 7th, 2010.
- Mayo-Perez*, A., Carpi, A. "The Potential Role of Silicon Dioxide as an Oxidizing Surface in Strong

- Sunlight: Studies on Mercury Behavior," 18th Annual CSTEP Conference, Lake George, NY, April 1-3, 2010.
- Mano*, S., Carpi, A. "Investigating the Emission of Mercury from Beach Sand vs. Dredged Ocean Sand used for Reclamation Purposes," 2nd Annual PRISM Undergraduate Research Symposium, John Jay College, New York, NY, May 7, 2009.
- Quinones*, J., Carpi, A. "Understanding the depth profile of elemental mercury emissions from sand & soil and its relevance to long-range environmental effects," 2nd Annual PRISM Undergraduate Research Symposium, John Jay College, New York, NY, May 7, 2009.
- Ho*, A., Carpi, A. "Mechanisms of the Reduction and Emission of Mercury in the Environment," 2nd Annual PRISM Undergraduate Research Symposium, John Jay College, New York, NY, May 7, 2009.
- Egger, A.E., and Carpi, A. Teaching the Process of Science: A Critical Component of Introductory Geoscience Courses: EOS Transactions AGU, Fall Meeting Supplement, v. 89, Abstract ED34A-01, 2008.
- Heslin*, J., Petraco, N., Carpi, A. "Modeling the Reduction of Mercury in Soil using Gaussian Software," 1st Annual PRISM Undergraduate Research Symposium, John Jay College, New York City, NY, May 8, 2008
- Quinones*, J., Carpi, A. "Understanding the Depth Profile of Mercury Emissions from Sand and Its Relevance to Long-Range Environmental Effects," LSAMP - Urban University Conference Series 2008, New York City, NY, April 11-12th, 2008
- Carpi, A., Egger, A. "An Idealized Curriculum for 1st Semester General Chemistry: What Topics Are Critical?" Invited Presentation to the Gordon Research Conference on Chemistry Education Research & Practice, Bates College, Lewiston, ME, June 24-26, 2007.
- Bryant*, E., Carpi, A. "The Effects of Clay on the Emission of Mercury from Soil," LSAMP - Urban University Conference Series 2007, New York City, NY, April 27-28, 2007.
- Contreras*, E., Frei, A., Carpi, A. "Developing a Surface-Air Mercury Model (SAMM)" LSAMP - Urban University Conference Series 2007, New York City, NY, April 27-28, 2007.
- De La Vega*, H., Carpi, A. "Mercury Emission from Soil: The Role of pH and Salt Concentration," 15th Annual CSTEP Conference, Lake George, NY, April 13-15, 2007.
- Orta*, O., Kobilinsky, L., Diaczek, P., Carpi, A. "Identification of 'Asbestos-Like' Fibers Associated with the Construction of the Third NYC Water Tunnel," 15th Annual CSTEP Conference, Lake George, NY, April 13-15, 2007.
- Mauclair*, C., Layshock*, J., Carpi, A. "The Effect of Humic Matter on Soil Mercury Emissions," 8th International Conference on Mercury as a Global Pollutant, Madison, Wisconsin, August 5-11, 2006.
- McCloskey*, R., Contreras*, E., Carpi, A. "UV Light and Soil Mercury Emissions: Identifying the Wavelength of Light Important in the Process," 8th International Conference on Mercury as a Global Pollutant, Madison, Wisconsin, August 5-11, 2006.
- Carpi, A. "Developing an Online Science Learning Environment that Grows with an Instructor's Experience," The Northeast Association for Science Teacher Education, Amherst, MA, Oct. 26, 2005.
- Carpi, A., Rosenberger, A., Egger, A. "An Integrated Learning Environment for Science Education," American Association for the Advancement of Science Annual Meeting, Seattle, WA, Feb. 16, 2004.
- Egger, A., Carpi, A. "Visionlearning: A Web-based Resource for Teaching and Learning Integrated Science," New Mexico Association of Community Colleges Annual Faculty Conference, Santa Fe, NM, May 18-20, 2003.
- Ovando*, B., Roberts*, M., Zedeck, M., Carpi, A. "Analysis of Zinc Accumulation in H. Vulgare," Collegiate Science & Technology Program Conference, Lake George, NY, April 6-8, 2001.

Carpi, A. "Enhancements in Interdisciplinary Science Training Using Web-Based Instructional Lessons," Chemistry & the Internet 2000, Washington, DC, September 24-27, 2000, <http://www.chemint.org>.

Carpi, A., Lindberg, S.E. "The Contamination and Flux of Methyl Mercury in Background and Sludge-Amended Soil," 4th International Conference on Mercury as a Global Pollutant, Hamburg, Germany, August 1996.

MENTORED STUDENTS

Josephine Chen, Undergraduate Researcher, 8/15-present.

Mercury chemistry in soils.

Erin Mann, Postdoctoral Researcher 8/15-present.

Mechanisms and reduction of mercury species in soil.

Nicole Fegan, Sanford Calhoun High School, Summer Researcher, 2015.

Analytical support to moss monitoring research, Siemens fellowship applicant.

Subsequent success: Research Report Badge Winner – Intel Science Competition.

Ronal Peralta, Undergraduate Researcher 12/14-present.

Moss as a monitor of atmospheric mercury around a municipal sludge incinerator.

Carlos Texeira, Undergraduate Researcher 2/14-present.

w/Caitlin McCormick, Manhasset High School student researcher.

The Use of Bird Feathers as Bio-monitors of Mercury in the Environment.

Danielle Rouse, Undergraduate Researcher 2/14-present.

Kinetics of the reduction and dissociation of mercuric oxide on environmental surfaces.

Richard Khusial, B.S., May 2015.

Mechanisms of the reduction of mercury (II) chloride in soil in the presence of light.

Garry Brown, Postdoctoral Researcher 6/13-7/15.

Mechanisms and reduction of mercury species in soil.

Subsequent success: J.D. – Lewis and Clark Law School.

Shari Yarde, B.S., May 2015.

w/Faisal Hossain, Townsend Harris High School student researcher.

Experimental studies of the reduction of hydrated mercury (II) in light.

Matthew Scarcella, CUNY B.A., May 2014.

Modeling the mechanisms of reduction of HgO.

Chantal Adlam, B.S., May 2014.

Modeling the mechanisms of dissociation of Hg(OH)₂.

Subsequent success: Ph.D program – State University of New York at Stony Brook

Michael Gittings, M.S., August 2014.

Effects of deforestation on soil mercury fluxes.

Eva Santos, B.S., May 2012.

The hydrolysis and reduction of mercury in water.

Subsequent success: M.S. program – Science Education, Columbia University – Teacher's College

Christina Hui, B.S., May 2011.

Mechanisms of the enhancement of mercury emissions by precipitation.

Ralph Tran, M.S., May 2011.

Methods for time-course profiling of starvation abuse in dogs.

Subsequent success: D.V.M Program – Mississippi State University

Amora Mayo-Perez, B.S., May 2011.

Oxidation of atmospheric mercury by silicon dioxide surfaces.

Subsequent success: Ph.D. program in neuroscience – University of South Florida

Jason Quinones, B.S., May 2010.

Soil depth profile of light-enhanced metal reduction chemistry.

Subsequent success: Ph.D program – State University of New York at Stony Brook

Elisabeth Contreras, M.S., May 2010.

Modeling the affect of climate change on the global mercury pollution cycle.

Stacy-Ann Mano, B.S., May 2009.

The effect of reclamation projects on coastal mercury emissions.

Anthony Ho, B.S., May 2009.

Solvation and transport of soil mercury.

Subsequent success: Ph.D. program in Biochemistry, Molecular, Cell and Developmental Biology – University of California, Davis

Jaimie Heslin, B.S., May 2008. Metzner Undergraduate Award Winner.

Chemical modeling of the reduction of Hg^{+2} in natural systems.

Deanna Filosa, Masters Researcher 10/06-8/08.

A mass balance of mercury fluxes at the Blackrock Forest, Cornwall, NY.

Eboni Bryant, B.S., May 2007.

The effect of salt concentration on soil mercury flux.

Alison Keenan, B.S., May 2007.

Evaluating student and alumni perception of quality in the Forensic Science major.

Subsequent success: **Ph.D. (2012) – University of California, Davis.**

Ashley Rhodes, M.S., December 2007.

The effect of rainfall and soil moisture on soil mercury emissions.

Subsequent success: New York City Medical Examiner's Office.

Kylie Ferguson, B.S., May 2007, CUNY B.S. Program.

Field validation of laboratory humic acid studies on soil mercury flux.

Hilda De La Vega, B.S., May 2007.

The effect of pH on soil mercury flux.

Subsequent success: New York City Medical Examiner's Office.

Olivia Orta, B.S., May 2007.

Urban sources of outdoor asbestos fibers.

Subsequent success: Ph.D. Program in Epidemiology, Harvard University (present). M.P.H. - Hunter College (2013)

Rachel McCloskey, M.S., December 2007.

Comparisons of UV-A, -B, and -C in the mercury emissions process.

Subsequent success: New York City Medical Examiner's Office.

Conrad Mauclair, B.S., May 2006. Undergraduate Research Award Winner.

Quantifying the role of humic matter on mercury reduction in soil.

Subsequent success: Project Manager, vTuner, Inc.

Daniel Cocris, B.S., May 2006. Metzner Undergraduate Award Winner.

Comparisons of the behavior of elemental and divalent mercury in soil.

Subsequent success: **D.M.D. (2013)**, University of Medicine and Dentistry of New Jersey

Kristin Ferraro, M.S., August 2006.

Mercury contamination in indoor environments.

Subsequent success: New York Police Department Analytical Laboratory

Julie Layshock, B.S., May 2004. McNair Fellow, Metzner Undergraduate Award Winner.

The role of organic matter in soil mercury reduction.

Subsequent success: **Ph.D. (2010) Environmental Toxicology**, Oregon State University.

Nancy Ordenana, B.S., May 2004. McNair Fellow, Metzner Undergraduate Award Winner.
DNA purification for pathogen identification.

Subsequent success: Ph.D program – University of Rochester

Umme Haidermota, M.S., May 2004.

Effects of hybrid poplar trees on soil mercury fluxes.

Subsequent success: Indianapolis State Police Crime Laboratory

Chad Moore, M.S., May 2004. Metzner Graduate Research Award Winner.

Effects of temperature and radiation on mercury emissions from soil.

Subsequent success: **Ph.D. (2009) Toxicology**, University of Utah

Theresa Nezezon, M.S., May 2004. U.S. EPA STAR Graduate Fellow

Sources and transport of microsporidia in surface water.

Subsequent success: New Jersey State Police Crime Laboratory

Lisa Evans, B.S., May 2004. McNair Fellow

Phytoremediation of zinc using *Hordeum vulgare*.

Subsequent success: **Ph.D (2010) Molecular Pharmacology**, SUNY Stony Brook

Daneille Coye, M.S., May 2004.

Optimization of HPTLC for identifying fiber dyes.

Subsequent success: Ph.D program – CUNY Graduate Center

Jamie Swaitko, M.S., December 2003.

Trace methods development for the identification of estrogen compounds in water.

Subsequent success: New York City Police Department Crime Laboratory

Bladimir Ovando, B.S., May 2002. McNair Fellow, CSTEP NY Research Award Winner.

Phytoremediation of heavy metal pollution.

Subsequent success: **Ph.D. (2008) Toxicology**, State University of New York at Buffalo.

Marcel Roberts, B.S., May 2002. McNair Fellow, CSTEP NY Research Award Winner.

Phytoremediation of cadmium in soil.

Subsequent success: **Ph.D. (2008) Analytical Chemistry**, Boston College.

Yung-fou Chen, M.S., September 2001. Society for Applied Spectroscopy Fellow

Source identification of urban mercury pollution.

Subsequent success: **Ph.D. (2007) Materials Science**, CUNY Graduate Center.

Jeffrey Mital, 2001. U.S. EPA STAR Graduate Fellow

PCR optimization for microsporidia analysis.

Subsequent success: **Ph.D. (2006) Microbiology**, University of Vermont