

Martin A. St. Clair

Education:

Ph.D., Chemistry 1989
California Institute of Technology, Pasadena, California
Advisor: John E. Bercaw

B.S., Chemistry and Environmental Studies 1983
cum laude, with high honors
Butler University, Indianapolis, Indiana

Professional experience:

Coe College

Ben Peterson Chair in Chemistry 2019-present
Professor 2007-present
Associate Professor 1999-2007
Assistant Professor 1993-1999
Department Chair (chemistry) 1997-2000,
2001-2007
2021-2024

Program Coordinator, Environmental Studies 2016-2022

Faculty Co-Director, C3: Creativity, Careers, Community 2019-2023

Senior Faculty Advisor, Center for Health and Society 2022-2023

Associate Dean of Faculty 2006-2010,
2016-2019

University of Iowa

Visiting Scientist, Dept. of Civil and Environmental Engineering
(sabbatical) 2000-2001; 2006;
2011; 2021

Visiting Scientist, Iowa Geological Survey (sabbatical) 2016 (spring)

Senior Research Assistant/Laboratory Director, Dept. of Civil and
Environmental Engineering 1990-1993

Visiting Assistant Professor, Dept. of Chemistry 1989-1990

Occidental College

Dreyfus Teaching and Research Fellow, Dept. of Chemistry 1988-1989

Professional Activities:

Steering Committee, Rodale Institute – Midwest Organic Center, 2020-2022
 Participant in ACM FaCE workshop, Integrating Agricultural Field Sites into the Curriculum and Student-Faculty Research at ACM Colleges, October 2019
 Cedar Lake Technical Advisory Team, City of Cedar Rapids, 2018-2019
 University of Iowa thesis committees for Rebecca Kauten (Ph.D. in Department Geographical and Sustainability Sciences) and Kendra Markland (M.S. in Civil and Environmental Engineering), 2017-2018
 Participant in Associated Colleges of the Midwest (ACM) Seminar in Advanced Interdisciplinary Learning, “Sustainability on the Margins: Investigating Adaptation and Change in Jordan”, July 20-30, 2015.
 Organizing committee and moderator for "Feeding the World: Challenges for Water Quality and Quantity", University of Iowa Public Policy Center, April 9, 2015.
 Technical advisory team, Indian Creek Watershed Management Association, 2012-2015.
 Participant in ACM Seminar in Advanced Interdisciplinary Learning, “Mediterranean Trivium: Earth, Sea, and Culture in Italy”, June 24 – July 4, 2013.
 Participant in Wabash National Study retention workshop, Center of Inquiry in the Liberal Arts, May 2009
 Participant in ACM/PKAL workshop, Pedagogies of Engagement, December 2008
 Participant in ACM FaCE workshop, Wearing Many Hats: The Department Chair at Liberal Arts Colleges, October 2006
 Participant in SENCER (Science Education for New Civic Engagements and Responsibilities) workshop, American Association of Colleges and Universities, summer 2001
 Reviewer for Environmental Science and Technology, Journal of the Iowa Academy of Science, Chemistry in Context Laboratory Manual, American Chemical Society - Petroleum Research Fund, Center for Health Effects of Environmental Contamination (University of Iowa), Butler University and Ithaca College Promotion and Tenure, and NSF Course, Curriculum, and Laboratory Improvement program
 Project Kaleidoscope Faculty for the 21st Century
 Participant in NSF Curricular Reform Workshop, ChemLinks/ModularChem, 1998

Continuing education:

Lachat Instruments	2009
Flow Injection Analysis Factory Training QC8500	
BioAnalytical Systems Training Workshop	2003
Principles and Applications of Electroanalytical Chemistry	
JEOL Institute	2000
Eclipse NMR System Management Course	
Varian Analytical Instruments Training Course	1997
Techniques of Gas Chromatography-Mass Spectrometry	

Honors and Awards:

Charles J. Lynch award for outstanding teaching, Coe College, 2019
 Outstanding Faculty Mentor, Coe College, 2013-14
 Distinguished Alumni, Caston Educational Center, 2012
 Selected as one of “Fifty under Fifty” outstanding young alumni of Butler University, 2004
 Certificate of Merit from Environmental Chemistry Division, ACS, Fall 1992
 Camille and Henry Dreyfus Fellow, Occidental College, 1988-89

External Grants and Contracts Funded:

- “Cedar River Tributary Study”, City of Cedar Rapids, \$15,000 in 2001-2010; \$19,000 in 2011-2015; \$28,000 in 2016-19; \$20,000 in 2020; \$30,000 in 2021; additional \$15,000 in in-kind support from Iowa Department of Natural Resources in 2002, 2004-2009, 2011-2013.
- “Evaluating a Two Stage Roadside Ditch Design to Improve Environmental Performance”, Iowa DOT to Keith Schilling (IGS), September 2019. \$293,702 total; sub-contract to Coe for \$35,000 (2020-23).
- Wapsipinicon Watershed Management Authority – laboratory analysis of samples, 2015-2017, 2019-present.
- Maquoketa Watershed Management Authority – laboratory analysis of samples, 2019-present.
- “Indian Creek Soil Health Partnership”, Iowa Partners for Conservation – Natural Resources Conservation Service, Jon Gallagher (PI), \$306,500, 2018-2023. (Coe share: \$24,000)
- Northeast Iowa Resource Conservation and Development – laboratory analysis of samples from Upper Iowa and Turkey River watersheds, 2015 – present.
- “OER for Advanced Analytical Chemistry”, Iowa Private Academic Libraries, \$2,000, 2022, co-PI with Cynthia Strong.
- “NetVUE Program Development Grant”, NetVUE/Council of Independent Colleges, \$50,000, 2021-2023 (with Barb Tupper).
- “Linn Learning Farm Water Quality Assessment”, Linn County Conservation, \$5,000, 2020.
- “Building Capacity for Community-Campus Research Partnerships”, Associated Colleges of the Midwest Faculty Career Enhancement Program, co-PI with Kara Trebil-Smith, Renee Penalver, Devan Baty, Samantha Hebel, Phoebe Trepp, Emily Shields, \$13,485 (2020-2021).
- “Evaluating the Combined Effects of N Application With and Without Manure on Groundwater Quality Using a Paired Field Design at the Kirkwood Community College Farm”, State Soil Conservation and Water Quality Committee, Keith Schilling (PI), Joshua Henik, Marty St. Clair, Matthew Streeter, \$40,426, 2019-2022.
- “Evaluating the Potential for Drainageways at the Kirkwood Community College Farm to Serve as Test Sites for Innovative Grass Waterway Designs”, Iowa Nutrient Research Center, Keith Schilling (PI); co PIs Martin St. Clair and Josh Henik, \$35,000, 2019-2020.
- “Ion Chromatograph to Support Collaboration”, Greater Cedar Rapids Community Foundation, \$23,000, 2018-19.
- “ACM Planning Meeting on Mississippi Studies”, Associated Colleges of the Midwest Faculty Career Enhancement Program (co-PI with Katie Adelsberger, Nicholas Baxter, Monica Berlin, Eric Carroll, Jodi Enos-Berlage, Jane Hawley, Marion James, Alicia Johns, John Kim), \$18,016, 2018-2019.
- “The STEMPath Approach: Success for Low Income Students”, National Science Foundation, (co-PI with Randy Christensen, Mario Affatigato, Gina Hausknecht, and Rick Eichhorn), \$649,659, 2017-2022.
- “Quantifying the Role of Soils in Salinization: Winter Road Maintenance Impacts to Runoff and Right-of-Way”, Iowa Water Center to Rebecca Kauten, University of Iowa (sample collection and analysis of samples) \$20,100, 2017-2018.
- “Evaluating the Nutrient Processing Capacity of Roadside Ditches”, Iowa Nutrient Research Center (co-PI with Keith Schilling, Matthew Streeter, Laura Jackson), \$5,000 (Coe share), 2016-17.
- “Permeable Parking at Coe College”, Urban REAP, Linn County Soil and Water Conservation District, \$10,000, 2016.

External Grants and Contracts Funded (continued):

- “Permeable Parking at Coe College”, Water Quality Initiative Urban Conservation Demonstration Project, Iowa Department of Agriculture and Land Stewardship, \$80,000, 2016.
- “Instrumentation for Surface Water Monitoring”, Community Partnership Grant, Cedar Rapids/Linn County Solid Waste Agency, \$3,110, 2014.
- “Monitoring Nutrient Losses from Tile-Drained Fields in the Middle Cedar River”, State Soil Conservation Committee, \$19,488 (Coe share), 2014-2015.
- “Benton/Tama Nutrient Reduction Project”, Iowa Department of Agriculture and Land Stewardship, \$6,000, 2014.
- “Purchase of a Handheld X-Ray Fluorescence Spectrometer”, Pittsburgh Conference Memorial National College Grant (co-PI with Cindy Strong, Cornell College), \$10,000, 2013.
- “Comprehensive Watershed Management Plan: Indian Creek Watershed Management District”, Iowa Department of Natural Resources and Iowa Economic Development Authority, \$187,330 total (\$27,330 for Coe water quality work), 2012-2013.
- “RAPID: Using a drought-enhanced nitrate pulse to understand stream N retention and processing”, National Science Foundation, (co-PI with Amy Burgin, Adam Ward, Terrence Loecke, Diego Riveros-Iregui) \$197,568 total, 2012-2013.
- “Coe College Rain Garden”, Community Partnership Grant, Cedar Rapids/Linn County Solid Waste Agency, \$9,962, 2011.
- “Renovation of Coe College's Peterson Hall of Science”, National Science Foundation-Academic Research Infrastructure (co-PI with Professor Steve Feller (PI), Professor Paula Sanchini, Professor Maria Dean, and Vice President for Academic Affairs Marie Baehr), \$4,704,396, 2010-2013.
- “Linking Molecular Scale Surface Speciation to Interfacial Fe Redox Chemistry”, National Science Foundation (co-PI with Professor Michelle Scherer (PI) and Professor Vicki Grassian, University of Iowa), \$36,494 (Coe share), 2010-2013.
- “Purchase of a Flame Atomic Absorption Spectrophotometer”, Pittsburgh Conference Memorial National College Grant, \$10,000, 2010.
- “NIRT: Nanoparticle Fe as a Reactive Constituent in Air, Water, and Soil”, NSF Nanoscale: Interdisciplinary Research Team (co-PI with Professor Michelle Scherer (PI), University of Iowa; Professor Clark Johnson, University of Wisconsin; Professor Vicki Grassian, University of Iowa; Professor John Coates, University of California, Berkley), \$86,376 (Coe share), 2005-2009
- “Integrating Introductory and Advanced Laboratories in Chemistry through Shared Experiments”, NSF Course, Curriculum, and Laboratory Improvement - Adaptation and Implementation (PI, with Maria Dean and Steve Singleton), \$70,000, 2005-2007
- “Ecological Assessment of Compensatory Wetland Mitigation”, Environmental Protection Agency, Region 7 grant to Iowa Department of Transportation, \$20,137 (Coe share only), 2005-2007
- “A Scanning Probe Microscope for Undergraduate Research at Coe College”, National Science Foundation-Major Research Instrumentation (co-PI with Professors Mario Affatigato, Maria Dean, Steve Feller, and Steve Singleton), \$164,261; 2004-2006
- “Acquisition of a Raman Spectrometer for Undergraduate Research at Coe College”, National Science Foundation-Major Research Instrumentation (co-PI with Professors Mario Affatigato, Steve Feller, and Steve Singleton), \$153,082; 2003-2004

External Grants and Contracts Funded (continued):

- “Exploring the Relationship Between Iron Surface Speciation and Heterogeneous Iron Catalysis”, American Chemical Society-Petroleum Research Fund (co-PI with Professor Michelle Scherer), \$80,000; 2003-2005.
- “Spectroscopy at Coe: Unifying Student-Faculty Research in Physics and Chemistry”, NSF Research Experience for Undergraduates (co-PI with Professors Mario Affatigato, Steve Feller, Jim Cottingham, Steve Singleton, and Scott Stoudt), \$100,342; 2001-2003; renewed 2004-2006.
- “Integration of Electrochemistry into the Undergraduate Chemistry Curriculum”, NSF Course, Curriculum, and Laboratory Improvement - Adaptation and Implementation, \$23,032; 2002. Sabbatical support, American Chemical Society-Petroleum Research Fund and National Science Foundation –Research at Undergraduate Institutions, 2001 (with Professor Michelle Scherer, University of Iowa).
- “Cedar River Nitrogen Study”, City of Cedar Rapids, Greater Cedar Rapids Foundation, and McElroy Foundation, \$15,000; 2000.
- “Chlordane Bioaccumulation in Cedar Lake”, Iowa Science Foundation, \$5,000; 1999.
- “FTNMR in the Undergraduate Chemistry Curriculum”, NSF Course, Curriculum, and Laboratory Improvement - Adaptation and Implementation (PI, with Peter Wickham), \$116,089; 1999.
- “Travel Grant to Attend GC-MS Workshop”, Dorothy and Moses Passer Education Fund (ACS), \$1,620; 1997.
- “Acquisition of an Ion Chromatograph and Field Equipment for Undergraduate Environmental Chemistry”, NSF Instrumentation and Laboratory Improvement Grant, \$9,962; 1996.
- “Acquisition of an Ion Chromatograph”, Johnson Wax Foundation, \$10,000; 1996.
- “Introduction of GC and GC-MS into First and Second Year Chemistry Courses”, NSF Instrumentation and Laboratory Improvement Grant (co-PI with Pete Wickham), \$26,434; 1995.
- “Synthesis of Novel Mo-Te Oxides as Models for Ammoxidation”, ACS-PRF Grant, \$20,000; 1995-97.
- “Formation and Transformation of Pesticide Degradation Products Under Various Electron Acceptor Conditions”, EPA Hazardous Waste Center (co-PI with Gene Parkin and Paige Novak), \$60,000; 1992-1995.
- “Supplemental Award of the Dreyfus Foundation Grant Program in Chemistry for Liberal Arts Colleges”, \$10,000; 1993
- “Renovation of Environmental Engineering Water Plant Laboratory at the University of Iowa”, NSF Facility Renovation Grant (PI, with Gene Parkin and Jerry Schnoor, University of Iowa), \$137,500; 1993.
- “Enhancement of an Undergraduate Engineering Laboratory with GC and IC”, NSF Instrumentation and Laboratory Improvement Grant (PI, with Gene Parkin and Jerry Schnoor, University of Iowa), \$14,281; 1993.

Publications:

- “Subsurface nitrate processing beneath drainageways: are they landscape opportunities for tile drainage remediation?”, Keith Schilling; Matthew Streeter; Sophie Pierce; Greg Brennan; Marty St Clair, accepted in *Journal of the American Society of Agricultural and Biological Engineers* (June 2022).
- "Aquifer Lithology Affects Shallow Groundwater Quality More Than N Fertilizer Form and Placement Method in an Iowa Agricultural Field," Keith E. Schilling, Matthew T. Streeter, Brennan Slater, Jason Vogelsang, Marty St. Clair, Anthony Martin, *Agrosystems, Geosciences & Environment* **2021**, 4(2), e20163.
- “Dissolved phosphate concentrations in Iowa shallow groundwater”, Keith Schilling, Peter Jacobson, Martin St. Clair, Christopher Jones, *Journal of Environmental Quality*, **2020**, 49(4), 909-920.
- “Soil sedimentation and quality within the roadside ditches of an agricultural watershed”, Matthew Streeter, Keith E Schilling, Martin St. Clair, Zachary Demanett, *Science of the Total Environment*, **2019**, 657, 1432-1440.
- “Subsurface Nutrient Processing Capacity in Agricultural Roadside Ditches”, Keith Schilling, Matthew T Streeter, Martin St Clair, Justin Meissen, *Science of the Total Environment*, **2018**, 637-638, 470-479.
- “Effectiveness of a Newly Reconstructed Floodplain Oxbow to Reduce NO₃-N Loads from a Spring Flood”, Keith E. Schilling, Bryce J. Haines, Christopher S. Jones and Martin St. Clair, *Journal of Environmental Management*, **2018**, 215, 385-393.
- “Weather whiplash in agricultural regions drives deterioration of water quality”, Terrance D. Loecke, Amy J. Burgin, Diego A. Riveros-Iregui, Steven A., Thomas , Adam S. Ward , Caroline A. Davis , and Martin A. St. Clair. *Biogeochemistry*, **2017**, 133:7, 7-15.
- “Optimizing Water Quality Sampling Strategy Using High-frequency Nitrate Data”, Kaycee N. Reynolds, Terrance D. Loecke, Amy J. Burgin, Caroline A. Davis, Diego Riveros-Iregui, Steven A. Thomas , Martin A. St. Clair, and Adam S. Ward, *Environmental Science and Technology*, **2016**, 50, 6406-6414.
- “Indian Creek Watershed Management Plan” Jennifer Fencl, Mary Beth Stevenson, Martin St. Clair, Jeff Tisl, Mary Skopec, Toby Hunemiller, Ryan Clark, Chad Fields, Tom Wilton, Walt Stephenson. June 2015; Indian Creek Watershed Management Authority and East Central Iowa Council of Governments.
- “Antecedent moisture controls on stream nitrate flux in an agricultural watershed, Clear Creek, Iowa”, Davis, Caroline; Ward, Adam; Burgin, Amy; Loecke, Terry; Riveros-Iregui, Diego; Schnoebelen, Douglas; Just, Craig; Thomas, Steve; Weber, Larry; St. Clair, Martin, *Journal of Environmental Quality*, **2014**, 43:4,1494-1503.
- “Denitrifying Bioreactors for Treatment of Tile Drainage”, Laura E. Christianson, Alok Bhandari, Matthew H. Helmers and Martin St. Clair; proceedings paper for spring 2009 Environmental and Water Resources Institute (EWRI) Conference of the American Society of Civil Engineers (ASCE), May 17-21, 2009.
- “Ecological Assessment of Compensatory Wetland Mitigation – Final Report”, Terry VanDeWalle, Kelly Poole, Scott Marler, Neil Bernstein, Craig Chumbley, Stephen Main, David McCullough, James Miller, Frank Olsen, Jeff Parmelee, Thomas Rosburg, Dennis Schlicht, Martin St. Clair, Wendy VanDeWalle, Eric Walsh. Submitted to U.S. EPA and Iowa Department of Transportation (#CD-98752301-0). August 2008. Available at <http://www.iowadot.gov/ole/wetlands.aspx>

Publications (continued):

- “Electrochemical Education”, website, peer-reviewed and included in the Analytical Science Digital Library (ASDLID 005112)
- “Nutrient Monitoring in the Cedar River Watershed”, fact-sheet published by the Water Monitoring section of the Iowa Geological Survey Bureau, 2004.
- “Fate and Transport of Organic Compounds in Municipal Solid Waste Compost”, S.M. Hsu, J.L. Schnoor, L.A. Licht, M.A. St. Clair, and S.A. Fannin, *Compost Science and Utilization*, **1993**, *1*, 36-48.
- “Reactivity of Permethylscandocene Derivatives with Acetylene. Structure of Bis(permethylscandocene)acetylene-diyl, $(\eta^5\text{-C}_5\text{Me}_5)_2\text{Sc-CC-Sc}(\eta^5\text{-C}_5\text{Me}_5)_2$ ”, Martin St. Clair, William P. Schaefer, and John E. Bercaw, *Organometallics*, **1991**, *10*, 525-527.
- “Structure of a Scandium-Carboxylate Complex: $(\eta^5\text{-C}_5\text{Me}_5)_2\text{Sc}(\text{O}_2\text{CC}_6\text{H}_4\text{CH}_3)$ ”, Martin St. Clair and Bernard Santarsiero, *Acta Crystallographica, Sect. C*, **1989**, *C45*, 850-852.
- “Addition of Sc-H, Sc-C, and Sc-N Bonds to Coordinated Carbon Monoxide: Structure of a Methylscandoxycarbene Derivative of Cobalt”, Martin A. St. Clair, Bernard D. Santarsiero, and John E. Bercaw, *Organometallics*, **1989**, *8*, 17-22.
- “Photochemistry of Dipalladium(I) Hexakis(methyl isocyanide) Hexafluorophosphate”, Terry D. Miller, Martin A. St. Clair, Mark K. Reinking, and Clifford P. Kubiak, *Organometallics*, **1983**, *2*, 767-769.

Conference presentations:

- “Use of Multivariate Modeling to Increase Accuracy and Relevance of Soil Health Assessments on Organic and Transitional Farms”, Carl C. Rosier, Martin St. Clair, Gavin C. Rosier, and Erin Meyer, 2021 ASA, CSSA, SSSA International Annual Meeting (November 2021)
- “Building a Community of Practice Across Classrooms: Refugees, Water, and Theatre” (plenary address), Julie Fairbanks, Marty St. Clair, and Susan Wolverton, Fall 2018 FaCE Conference, Associated Colleges of the Midwest, September 2018.
- “Teaching the flood: integrating responsible stormwater management”, Martin St. Clair, Midwest Sustainability Conference, Upper Midwest Association of Campus Sustainability (Beloit, Wisconsin), April 1, 2017.
- “In-stream nitrate responses integrate human and climate systems in an intensively managed landscape” (H42C-02, Invited), Adam Ward, Caroline Davis, Amy Burgin, Terry Loecke, Diego Riveros-Iregui, Doug Schnoebelen, Craig Just, Steven Thomas, Larry Weber, Martin St. Clair, Scott Spak, Kajsa Dalrymple, Yuwei Li, Kara Prior, presented at American Geophysical Union meeting, December 15-19, 2014.
- “In-stream nitrogen processing and dilution in an agricultural stream network” (H11B-0877), Kara Prior, Adam Ward, Caroline Davis, Amy Burgin, Terry Loecke, Diego Riveros-Iregui, Steven Thomas, Martin St. Clair, presented at American Geophysical Union meeting, December 15-19, 2014.
- “High-frequency Water Quality Monitoring to Quantify Uncertainties of Sampling Strategies in Agricultural Watersheds”, Kaycee N. Reynolds, Terrance D. Loecke, Amy J. Burgin, Caroline A. Davis, Diego Riveros-Iregui, Steven A. Thomas, Adam S. Ward, and Martin A. St. Clair, presented at The Future of Big Data: From Data to Knowledge, November 6-7, 2014 at Nebraska Innovation Campus Conference Center

Conference presentations (continued):

- “The Effect of Discharge on Phosphorus Loading to the Iowa-Cedar River Basins”, Craig Adams, Terrence D. Loecke, Steven A. Thomas, Martin A. St. Clair, Caroline D. Davis, Kaycee N. Reynolds, Adam S. Ward, Diego Riveros-Iregui, Amy J. Burgin, poster 448 presented at May 2014 Joint Aquatic Sciences Meeting (Portland, Oregon).
- “Using a High Frequency Monitoring Network to Quantify Optimal Sampling Strategies in Agricultural Watersheds”, Kaycee N. Reynolds, Terrence D. Loecke, Diego Riveros-Iregui, Amy J. Burgin, Steven A. Thomas, Adam S. Ward, Caroline D. Davis, Martin A. St. Clair, oral presentation at May 2014 Joint Aquatic Sciences Meeting (Portland, Oregon).
- “Weather Whiplash in Agricultural Regions Creates Unforeseen Changes in Water Quality”, Amy J. Burgin, Terrence D. Loecke, Diego Riveros-Iregui, Steven A. Thomas, Adam S. Ward, Caroline D. Davis, Martin A. St. Clair, oral presentation at May 2014 Joint Aquatic Sciences Meeting (Portland, Oregon).
- “Antecedent Moisture Controls on Stream Nitrate Flux in an Agricultural Watershed, Clear Creek, Iowa” Caroline D. Davis, Adam S. Ward, Douglas Schnoebelen, Larry Weber, Amy J. Burgin, Terrence D. Loecke, Diego Riveros-Iregui, Martin A. St. Clair, Steven A. Thomas, Craig Just, poster 287 presented at May 2014 Joint Aquatic Sciences Meeting (Portland, Oregon).
- “Drought-induced enrichment of soil nitrogen leads to record high nitrate loading to agricultural river networks (*Invited*)” Amy J Burgin, Terrance D Loecke, Caroline Davis, Adam S Ward, Martin St. Clair, Diego Riveros-Iregui, Steven A. Thomas, presented at Fall 2013 meeting of American Geophysical Union (paper B32B-02).
- “Flood and drought-enhanced variations in streamwater nitrate flux in an agricultural watershed, Clear Creek, Iowa”, Amy Burgin, Caroline A. Davis, Terry Loecke, Diego Riveros-Iregui, Doug Schnoebelen, Martin St. Clair, Steven Thomas, Adam Ward, Larry Weber, presented at August 2013 meeting of the Ecological Society of America.
- “Joining Forces: Mutually Beneficial Collaborations Between Watershed Improvement Projects and Iowa’s Small Colleges” Jodi Enos Berlage, Rick Klann and Marty St. Clair, presented at 2013 Iowa Water Conference, March 4-5, 2013.
- “A Comparison of Water Quality in Eastern Iowa Reference and Mitigation Wetlands”, Martin St. Clair, presented at spring 2009 meeting of the Iowa Academy of Science. April 17-18, 2009.
- “Research Experiences for Incoming Students: The Carver Program at Coe College”, Martin St. Clair (presented at the 2008 National Meeting of the Council on Undergraduate Research).
- “Regulatory Compliance and Ecological Performance of Mitigation Wetlands in an Agricultural Landscape”, Terry VanDeWalle, Kelly Poole, Scott Marler, Neil Bernstein, Stephen Main, David McCullough, James Miller, Franklin Olsen, Jeffrey Parmelee, Thomas Rosburg, Dennis Schlict, Martin St. Clair, Eric Walsh, Craig Chumbley, *Proceedings of the 2007 Mid-Continent Transportation Research Symposium*, Ames, Iowa, August 2007.
- “The Carver Summer Scholar Program: Introducing Incoming College Students to Research in the Sciences”, Martin St. Clair, Susan Noreuil, Marc Roy (presented at the 2006 National Meeting of the Council on Undergraduate Research).

Conference presentations (continued):

- “U(VI) Reactions with Green Rusts: Influence of Anions”, Martin St. Clair, Sharon L. Smith, Justine O. Harrison, Edward J. O’ Loughlin, Kenneth M. Kemmer, Maxim I. Boyanov, Michelle Scherer, (presented at the 2006 Spring National meeting of the American Chemical Society, paper no. ENVR 216).
- “Assessment of the Sediment Chlordane Levels in McCloud Run, Cedar Rapids, Iowa” Josh R Dettman, Marty St. Clair (presented at the 2006 Spring National meeting of the American Chemical Society, paper no. CHED 815).
- “Nutrient Concentrations in Eastern Iowa Watersheds”, invited lecture, 4th Annual Iowa Water Monitoring Conference, February 2004, Ames, Iowa.
- “The Determination of Chlordane Concentrations in Cedar Lake Fish Using SPMD and GC-MS”, J.A. Zanter, L. Adams, C. Goater, and M. St. Clair (presented at the Spring 2000 meeting of the Iowa Academy of Science).
- “Optical Properties of Thin Rhenium Silicate Sol-Gel Films”, D.M. Wellington, M.J. Matsuura, T.J. Kiczenski, E. Hoque, C. Killmer, P.P. Wickham, M.A. St. Clair, M. Affatigato (presented at 1998 Fall meeting of the Glass and Optical Materials Division Meeting of the American Ceramic Society)
- “Environmental Analysis - An Interdisciplinary Capstone Course in Environmental Science”, Martin A. St. Clair and Paula Sanchini (presented at at 1998 Council on Undergraduate Research meeting, poster P34 and panel presentation W27)
- “Analysis of Polynuclear Aromatic Hydrocarbons in Cedar Lake Sediments”, J.A. Myrom and M.A. St. Clair (presented at the 1997 meeting of the Iowa Academy of Science, paper no. 56.)
- “Synthesis and Characterization of Ammoxidation Model Compounds”, B.J. Sieve, M.A. St. Clair, and T. Wenck (presented at the 1997 meeting of the Iowa Academy of Science, paper no. 61.)
- “Drinking Water Treatment Chemistry in Environmental Engineering and Analytical Chemistry Courses”, Martin A. St. Clair and Gene F. Parkin (presented at the 1994 Spring meeting of the American Chemical Society, paper no. CHED389).
- “Formation and Transformation of Pesticide Degradation Products Under Various Electron Acceptor Conditions” P.J. Novak, M.A. St. Clair, and G.F. Parkin. Poster presented at the Conference on Hazardous Waste Research, Kansas State University, Manhattan, KS, May 1993.
- "Photochemical Treatment Process for Mine-Tailing Leachates", M.A. St.Clair, C. Mojonier, L. Brekke, J. Schnoor (presented at the 1992 Fall meeting of the American Chemical Society, paper no. ENVR40.)
- "Alkyl Migrations to Heteroatoms in Tantalocene Systems", Martin A. St.Clair and John E. Bercaw (presented at the 1988 Spring meeting of the American Chemical Society, paper no. INOR585).
- "Insertion of CO into Scandium-Carbon Bonds", Martin A. St. Clair and John E. Bercaw (presented at the 1986 Fall meeting of the American Chemical Society, paper no. INOR150).

Service to the College:

Member, Executive Committee, 1996-97, 2004-05, 2021-23 (co-chair 2021-22; faculty representative on Senior Staff, 2021-22)

Faculty Co-Director of C3: Creativity, Careers, Community, 2019-2023

Senior Faculty Advisor, Center for Health and Society, 2022-23

Associate Dean of Faculty for Faculty Development, 2006-2010, 2016-2019

- Orientation of new faculty
- Liaison to Associated Colleges of the Midwest, including Faculty Fellows for a Diverse Professoriate program
- Chair - Committee on Faculty Development
- Chair - Task Force on Student Evaluation of Teaching
- Organizer for national Consortium for Faculty Diversity meeting at Coe 2008

Thursday Forum, Spring 2003, Spring 2012, Spring 2021

Member, FYE Committee, 2019-2020

New Faculty Mentor, 2003-2004, 2010, 2015, 2020-2022

Member, *Ad Hoc* Committee on Academic Advising, 2006, 2019

Strategic Plan Committee, summer 2015

Retention Advisory Committee, 2014-2016

Member, Committee to Advise the President on Budget, 2015-2016

Convenor, Sustainability Council, 2009-2014; member, 2009-present

Member, Long Range Planning Committee, 2007-2010, 2011-2015

Member, Dean of Faculty Search Committee, 2006

Member, *Ad Hoc* General Education Committee on Issues Courses, 2005

Project Director, Carver/FYRE Summer Research Program, 2004-2009

President, Coe chapter of Phi Kappa Phi, 2004-2005

Member, *Ad Hoc* Workload Committee, 2002-2003

Member, CAPRPT Committee, 2001-2003 (chair, 2002-2003)

Chair, *Ad Hoc* Committee on Departmental Assessment, 1998

Chair, Admission and Financial Aid Committee, 1998-99

Member, Assessment Committee, 1997-99

Member, Coe Plan/Steering Committee, 1997-99

Member, Academic Policy Committee, 1994-96, 1999-2000

Campus Representative, Oak Ridge Science Semester, 1994-2000, 2002-present

Faculty Advisor, E-Coe, 2002-03

Faculty Advisor, Recycling Center, 1996-99

Faculty Advisor, Mortar Board, 1998-00, 2011

Faculty Advisor, Chemistry Club, 2014-present

Faculty Advisor, Outdoor Club, 2018-2020

Courses Taught at Coe:Regular Term

Selected Concepts in Chemistry
 Honors Seminar: Topics in Scientific Inquiry
 Freshman/First Year Seminar
 Principles of Structural Chemistry
 Principles of Chemical Reactivity
 Analytical Chemistry
 Analytical Chemistry Laboratory
 Advanced Analytical Chemistry
 Environmental Analysis
 Inorganic Chemistry
 Advanced Laboratory in Chemistry

Senior Seminar in Chemistry
 Introduction to Environmental Studies
 Topics in Environmental Studies

Winter/May Term

Science and Health Internship
 Consumer Chemistry
 Water Chemistry
 Environmental Chemistry
 Systems Analysis: Limits to Growth
 Ozone: Science and Policy
 Water Quality

Have supervised 80+ undergraduate researchers during summers at Coe.

Community Activities:

Board member, Southeast Linn Community Center (Mt. Vernon/Lisbon), 2012-2017;
 vice president, 2014; president, 2015-2016
 Instructor, Iowa United Methodist Women Mission U, "Climate Justice", 2016
 Presenter, College for Kids STEM Academy, June 2012
 Co- president, Mt. Vernon Fine Arts Association, 2006-2007
 Board of Visitors, Butler University College of Liberal Arts and Sciences, 2003-2006
 Speaker for Restore Our Wapsi, Iowa Corngrowers Environmental Improvement
 Committee, Lime Creek Watershed Council, Rotary International (Cedar Rapids and
 Mount Vernon-Lisbon), Mt. Vernon Presbyterian Church, Mt. Vernon United
 Methodist Church, First Presbyterian Church (Cedar Rapids, twice), Ethical
 Perspectives on the News (twice), Indian Creek Watershed Management Association,
 Cedar Rapids Tourist Club, Cedar Rapids League of Women Voters (twice),
 Leadership for Five Seasons, "Cottage College" (Cottage Grove Place), Linn County
 United Nations Association, Cornell College Science Interest Group, East Central
 District Iowa United Methodist Women, Iowa Master River Stewards class, St. Paul
 United Methodist Women, Iowa's Living Landscapes, Indian Creek Watershed
 Management Authority board (x2), City of Cedar Rapids Innovative Stormwater
 Management Tour, Women for Water (Mt. Vernon), Coe summer Wednesday Lunch,
 Coe Theatre Arts ("I Dreamed the Last Diamond Darter"), Creekside Pride (Marion),
 Lego League (Oak Ridge Middle School and Viola Gibson), Kirkwood horticulture
 classes (x2), Cornell College chemistry department, Corridor Conservation, Rockwell
 Lunch and Learn, Linn Mar Venture program.