James R. Kraly

Associate Dean of Academic Program Innovation – Associate Professor Chemistry
Keene State College, Keene, New Hampshire
jkraly@keene.edu, 603-358-2849

Current Employment:

Associate Dean of Academic Program Innovation, Keene State College *Fall 2023-Current*
Supervisor: Dr. James Beeby (Provost)

Associate Dean of Faculty, Keene State College *Fall 2022-Spring 2023*
Supervisors: Dean Karrie Kalich, Dr. James Beeby (Provost)

Associate Dean, School of Sciences, Sustainability, and Health
Keene State College *Fall 2018-2022*
Supervisor: Dean Karrie Kalich

Primary Administrative Responsibilities as Associate Dean (not exhaustive)

Support for Undergraduate Programs
- *Direct support for programs related to scheduling, curriculum, student/faculty issues*
- *Support for faculty for student enrollment and advising, liaising with the registrar*
- *Programs in the Natural and Professional Sciences (11 Programs) 2018-2023*
- *Programs in History, Holocaust and Genocide Studies, and Safety Studies 2023-2024*

Support for Graduate Studies and Extended Education, 2023-Current
- *Support for graduate programs, summer session planning, J-term development*
- *Partnerships with external groups for leasing educational space*
- *Aligned with Keene State OSHA Training Institute leadership*

Career and Technical Education (CTE) Partnerships
- *Orchestrate CTE Visit Days to welcome students to KSC campus for mini-courses*
- *Outreach to CTE Centers raising awareness of programs and articulations for credit*
- *Team effort resulted in now 12% enrolled first-year students from CTE connections*

Development of Educational Pathways for Precision Optics
- *Worked closely with faculty to support creation of four new courses related to optics*
- *Engaged industry to secure diamond turning lathe equipment for optics courses*
- *Established Two-year partnership with AmeriCOM to support pathways for precision optics including 1-year certificate program*

Programs for Undergraduate Research and Scholarly Projects
- *created and managed program to support students' hourly stipends for mentored faculty work*
  - *Average 25 projects, 35 students, and ~$30K of support each year*
- *Co-Principal Investigator for NH-INBRE program supporting undergraduate research in biomedical areas that impact human health.*
- *Co-Principal Investigator for NH-LIFT program supporting undergraduate research in STEM areas, 2024-2028*
- *Hosted Fall 2022 annual state-wide NH-BioMade meeting focused on biomaterials*

Engagement with Industry
- *Worked with Detact Diagnostics to establish leased space in Putnam Science Center*

- *Two-yr agreement will establish CLIA lab and generate revenue over $18K in year 1 and $25K in year two for science programs*
- *Anticipated involvement of student interns with expansion*

Development of Microcredentials at KSC

- *Nine established including those in optics, biofabrication, and advanced manufacturing*

Academic Support for Students and Faculty

- *Oversight of all student independent study approvals for undergraduate research, peer course assistants*
- *Review of all Academic Honesty Case Violations for Students/Faculty*
- *Administrative Academic Representative for Orientation/Admission Events, Presentations*
- *Oversight of bi-Annual Academic Student Showcase Events*

Associate Professor of Analytical Chemistry

Keene State College, Keene, New Hampshire, August 2009-Present

- Professor of INCHEM 100 Fundamentals of Chemistry, INCHEM 111/112 General Chemistry, CHEM 251 Quantitative Analysis, and CHEM 454 Instrumental Analysis.
- Undergraduate research using capillary electrophoresis and gas chromatography-mass spectrometry methods for environmental and biological monitoring.
- Promotion from Assistant to Associate Professor in August of 2014
- Tenured by University of New Hampshire system June of 2015
- Instructed CHEM 251 in Spring of 2022 while Associate Dean (3 students)

Education:

Colorado State University, Fort Collins, Colorado, February 2007-2009

- Post-doctoral fellow in Dr. Charles Henry's research lab performing microfluidic bioanalytical separations using microchip capillary electrophoresis with electrochemical detection, including metabolic profiling of canines undergoing chemotherapy using conventional capillary electrophoresis

University of Washington, Seattle, Washington, 2001-2006

- Ph.D. in Analytical Chemistry with Dr. Norman Dovichi. Rapid and reproducible two-dimensional capillary electrophoresis of Barrett's esophagus tissue homogenates. Defense August 10, 2006.

Bucknell University, Lewisburg, Pennsylvania, 1997-2001

- B.S. in Chemistry, minor in Philosophy, *cum laude*

Teaching Experience:

Assistant Professor, Department of Chemistry, Keene State College, 2009-Present

- Instructor for General Chemistry, Quantitative Analysis, and Instrumental Analysis
- Research Advisor to Independent Studies students (21 students over 14 semesters)
- Supervisor of summer undergraduate research students at Keene State College, Summers 2010, 2011, 2013, 2014.
- Academic Advisor to Chemistry majors (28 students over 14 semesters)

Substitute Lecturer, Department of Chemistry, Colorado State University, 2007-2009

- Substitute for C431 Instrumental Analysis and C533 Chemical Separations, 10 classes

Chemistry Instructor, Department of Chemistry, Colorado State University, 2007

- Head instructor for Fundamentals of Chemistry, CC107, for 19 students during 8 week summer session. 90 minute lecture Monday thru Friday.

Graduate Teaching Assistant, Department of Chemistry, University of Washington, 2001-2003

- Quiz section lecturer and laboratory instructor for CHEM 142 and CHEM 152, General Chemistry I and II
- Laboratory instructor for CHEM 241 and 242, Organic Chemistry Laboratory I and II.

Philosophy Teaching Assistant, Department of Philosophy, Bucknell University, 2000-2001

- Tutoring and exam grading for approximately 150 students in PHIL 103, Philosophy of Logic

Organic Chemistry Lab Assistant, Department of Chemistry, Bucknell University, 1999

- Duties included chemical stocking, preparation of unknowns, and assistant laboratory manager

Awards, Honors, and Affiliations:

- American Chemical Society member, 2008-present
- American Electrophoresis Society Student Travel Grant Award, 2005
- Sigma Xi Scientific Research Society, 2002-2003
- Lloyd E. and Florence M. West Graduate Student Fellowship, 2001 (U. Washington)
- American Chemical Society Undergraduate Award in Analytical Chemistry, 2001 (Bucknell U.)

Recent Professional Presentations

1) Leading Owls toward the light: Advances in optics and precision manufacturing educational pathways at Keene State College. James R. Kraly, Karrie Kalich, Sarah McGregor, Lisa Hix. PAPER ID: 12213-20, (Oral Presentation), Optics Education and Outrearch VII. SPIE Optical and Engineering + Applications Meeting, San Diego, CA, August 21-25, 2022.

2) What's the buzz!? Undergraduate investigations of caffeine and other chemicals using analytical techniques. James R Kraly. PAPER ID: 2854829, (Oral Presentation), Division of Analytical Chemistry. 255th ACS National Meeting, New Orleans, LA, March 18-22, 2018.

Student Presentations at Conferences:

(underline indicates presenting author)

1) Up in Vapor: An Investigation of Nicotine and Associated Chemicals Within E-Liquids. James T Hagan, Robert F. Rein, and Dr. James Kraly. Poster Presentation. Academic Excellence Conference, Keene State College. April, 2016.
2) "What's the Buzz?" An Analytical Investigation of Caffeinated Beverages and Products. Russell Kramer and Melissa Wydra, Dr. James Kraly. Poster Presentation. Academic Excellence Conference, Keene State College. April, 2016.
3) Chemical Profiling of Microalgae Communities Associated with Eelgrass. Haley Nickerson, Cynthia Hays, and James Kraly. Poster Presentation. Academic Excellence Conference, Keene State College. April, 2015.
4) Environmental Chemical Analysis of Inorganic Ions in Local Rivers. John Elliott, Zackary Reynolds, Zachary Shalit, Lauren Tiefenthaler, Dr. James Kraly, and Dr. Denise Burchsted. Poster Presentation. Academic Excellence Conference, Keene State College. April, 2015.

5) Assessing Alternatives: Chemical Content analysis of biodiesel fuel emissions. Ethan Hotchkiss, Niko Brown, Michael Cavacas, Dr. Nora Traviss, Dr. James Kraly. Oral Presentation. Academic Excellence Conference, Keene State College. April, 2015.
6) Analysis of Organic Compounds Isolated from Particulate Matter Produced by Biodiesel and Diesel Fuels. Niko Brown, Michael Cavacas, Dr. Nora Traviss, Dr. James Kraly. Poster. American Chemical Society National Meeting. Denver, Colorado. March 2015.
7) Analysis of Organic Compounds Associated with Biodiesel Exhaust. Brown, N. R., Cavacas, M. W., Kelley, P., Traviss, N. T., and Kraly, J. R.. New Hampshire Idea Network of Biomedical Research Excellence Summer Meeting, Whitefield, NH. August 3-4, 2014.
8) Analysis of Heavy Metals and Organic Compounds Associated with Biodiesel Exhaust. Brown, N. R., Cavacas, M. W., and Kraly, J. R.. Academic Excellence Conference, Keene State College, Keene, NH. April 5th, 2014.
9) The Characterization of Resveratrol in Japanese Knotweed. (oral presentation) Ulcickas, J. R. W., Junge, D. M., and Kraly, J. R.. Academic Excellence Conference, Keene State College, Keene, NH. April 5th, 2014.
10) The Characterization of Resveratrol in Japanese Knotweed. Ulcickas, J. R. W., Junge, D., M., and Kraly, J. R. (poster presentation) American Chemical Society National Meeting, Dallas, Texas. March 16-19th 2014
11) The Characterization of Resveratrol in Japanese Knotweed. (poster) Ulcickas, J. R. W., Junge, D. M., and Kraly, J. R. Council of Public Liberal Arts Colleges Regional Undergraduate Research Conference, Massachusetts College of Liberal Arts, North Adams, MA. October 25-26, 2013.
12) Quantifying Equine Salivary Cortisol using Capillary Electrophoresis. (poster) Guyette, R. Jr., Casna, B., Piscop, S., Kraly, J. R. Academic Excellence Conference, Keene State College, Keene, NH. April 6th, 2013.
13) Investigating the influence of Japanese Knotweed diet on the fatty acid content of chicken eggs. (poster) Krauss, S., Junge, D. M., and Kraly, J. R. The 244th American Chemical Society National Meeting, Philadelphia, PA. August 20th, 2012.
14) Monitoring Polycyclic Aromatic Hydrocarbon (PAH) contamination in local lichen. (oral presentation) Abeleira, A., and Kraly, J. R. Academic Excellence Conference, Keene State College, Keene, NH. April 7th, 2012.
15) Quantitative Determination of Stimulants in Energy Drinks. (poster) Hendrickx, J., and Kraly, J. R. Academic Excellence Conference, Keene State College, Keene, NH. April 7th, 2012.
16) Can an invasive plant help produce healthier eggs? (oral presentation) Krauss, S., Junge, D. M., and Kraly, J. R. Academic Excellence Conference, Keene State College, Keene, NH. April 7th, 2012.
17) The Buzz About Four Loko: An Analytical Investigation of Caffeine Content In Beverages (poster) Bolsch, C., Hendrickx, J., and Kraly, J. R. Northeast Undergraduate Research and Development Symposium, University of New England, Biddeford, ME. March 10th, 2012.
18) Can invasive plants help produce healthier eggs? (poster) Krauss, S., Junge, D. M., and Kraly, J. R. Northeast Undergraduate Research and Development Symposium, University of New England, Biddeford, ME. March 10th, 2012.
19) Quantitative determination of salivary cortisol using capillary electrophoresis. (poster) Hendrickx, J., Piscopo, S., and Kraly, J. R. Northeast Undergraduate Research and Development Symposium, University of New England, Biddeford, ME. March 10th, 2012.
20) Can invasive plants help produce healthier eggs? An investigation of the influence of Japanese Knotweed diet on fatty acid content of chicken eggs. (poster) Krauss, S., Junge, D.

M., and Kraly, J. R. Council of Public Liberal Arts Colleges Regional Undergraduate Research Conference, Keene State College, Keene, NH. October 14th, 2011.

21) Monitoring Polycyclic Aromatic Compounds in New Hampshire Lichen using Gas Chromatography Mass Spectrometry (poster). Abeleira, A., and Kraly, J. R. 23rd International Symposium on Polycyclic Aromatic Compounds, University of Munster, Munster, Germany. September 5th, 2011
22) Quantifying Sulfate Content in Diesel Engine Exhaust using Capillary Electrophoresis (poster). Hendrickx, J., Traviss, N. M., and Kraly, J. R. New Hampshire IDeA Network of Biomedical Research Excellence Annual Meeting, Whitefield, NH. August 2011.
23) Can invasive plants help produce healthier eggs? An investigation of the influence of Japanese Knotweed diet on fatty acid content of chicken eggs. (poster) Krauss, S., Halsey, J., Minard, R., Junge, D. M., and Kraly, J. R. New Hampshire IDeA Network of Biomedical Research Excellence Annual Meeting, Whitefield, NH. August 2011.
24) Monitoring Polycyclic Aromatic Compounds in Lichen using Gas Chromatography Mass Spectrometry (poster). Abeleira, A., and Kraly, J. R.. New Hampshire IDeA Network of Biomedical Research Excellence Annual Meeting, Whitefield, NH. August 2011.
25) The Buzz About Four Loko: An Analytical Investigation of Caffeine Content in Beverages. Hendrickx, J.; Bolsch, C.; Kraly, J. R. (poster presentation) Academic Excellence Conference, Keene State College, Keene, NH. April 2nd, 2011
26) Environmental Monitoring of Polycyclic Aromatic Hydrocarbons in lichen using Gas-Chromatography-Mass Spectrometry. Kraly, J. R.; Meier, J.; Abeleira, A. (poster presentation) Academic Excellence Conference, Keene State College, Keene, NH. April 2nd, 2011
27) Separation of Polycyclic Aromatic Hydrocarbons using Cyclodextrin Modified Capillary Electrophoresis. Kraly, J. R.; Meier, J.; Abeleira, A. (poster presentation) Academic Excellence Conference, Keene State College, Keene, NH. April 2nd, 2011
28) Environmental Monitoring of Polycyclic Aromatic Hydrocarbons in lichen using Capillary Electrophoresis and Gas-Chromatography-Mass Spectrometry. Kraly, J. R.; Meier, J.; Abeleira, A. (poster presentation) 62nd Pittsburgh Conference on Analytical Chemistry and Applied Spectroscopy, Atlanta, Georgia. March 15-18, 2011.
29) Environmental Monitoring of Polycyclic Aromatic Hydrocarbons in lichen using Gas-Chromatography-Mass Spectrometry. Kraly, J. R.; Meier, J.; Abeleira, A. (poster presentation) Council of Public Liberal Arts College Northeast Regional Meeting, North Adams, Massachusetts. October 1-2, 2010.
30) Separation of Polycyclic Aromatic Hydrocarbons Utilizing Cyclodextrin Modified MEKC in Capillary Electrophoresis. Kraly, J. R.; Meier, J.; Abeleira, A. (poster presentation) Council of Public Liberal Arts College Northeast Regional Meeting, North Adams, Massachusetts. October 1-2, 2010.

Grant Awards:

- 2016 Keene State College Building Excellence in Science and Technology Program (BEST) Transformative Teaching Grant for a proposal titled ""Incorporating Engaging Analytical Instrumentation in General Chemistry" to conduct during the summer of 2016.
- 2013 National Institute of Health R15 Grant for award ($415, 890) titled "Real world biodiesel particulate matter exposure and toxicological responses". Co-investigator with Dr. Nora Traviss, Department of Environmental Studies, Keene State College.

- 2013 National Science Foundation – Major Research Instrumentation Grant award ($263, 700) for a grant titled "400 MHz Spectrometer". Co-investigator with members of Department of Chemistry.
- 2010 Pittsburgh Conference Memorial National College Grant Award ($10,000) for a proposal describing the acquisition and intended use of a hand-held Raman Spectrometer for use in the undergraduate chemistry curriculum
- 2011 New Hampshire Idea Network of Biomedical Research Excellence (NH-INBRE) Directors Initiative Award ($13,294) for one academic year student research stipends, student conference travel, and chemical supplies

Mentored Student Grant Awards:

- 2016 Keene Stat College Undergraduate Research Grant for Robert Rein to support purchase of a new chromatography column (pending).
- 2015 Student Conference Fund Award for supporting eight students travelling to Denver, CO for American Chemical Society National Meeting in March.
- 2014 Student Conference Fund Award ($405) for James Ulcickas to support travel to present a poster at the American Chemical Society National Meeting in Dallas, Texas.
- 2014 Kolthoff Student Travel Award ($375) for James Ulcickas to support travel to present a poster at the American Chemical Society National Meeting in Dallas, Texas.
- 2013 Summer Undergraduate Research Fellowship (SURF) at Keene State College for James Ulcickas, co-mentored with Dr. Denise Junge. Project title "The Chemical Characterization of Japanese Knotweed and of Micronutrients Found in Chicken Eggs".
- 2012 Student Conference Fund Award ($744) for Shannon Krauss to support travel to present a poster at the American Chemical Society National Meeting in Philadelphia, PA.
- 2011 Student Conference Fund Award ($494) for Andrew Abeleira to support travel to present a poster at ISPAC in Munster, Germany
- 2010 Undergraduate Creative Project Grant Award ($1500) for a joint proposal submitted by Andrew Abeleira and Jacob Meier titled "Lichen as a biomonitor for air pollution: quantitative analysis of polycyclic aromatic hydrocarbons using capillary electrophoresis separation"

Institutional Activities:

- Co-Advisor for Chemistry Lyceum, a student chemistry club at KSC, 2010-Present
    - Supervised chemical demonstration outreach program to local middle school (Spring 2011)
    - Organized visiting speakers for chemistry seminars (one each semester)
    - Host Annual 'Student Research Symposium' for highlighting undergraduate research in the sciences (Spring 2012, Fall 2012, Spring 2014).

- Organized the Natural Science Seminar Series (NSSS) holding approximately six invited speakers per semester (KSC and visiting) for evening lectures in the Science Center.
- Chair, Academic Excellence Conference Committee, Fall 2015 to present
- Member, Academic Excellence Conference Committee, Fall 2011 to Spring 2015
- Member, Undergraduate Research and Creative Grants Committee, Fall 2010 to Spring 2014

- Member, Keene State College Summer Undergraduate Research Fellowship Committee, Spring 2011 to Spring 2014
- Member, Undergraduate Scholarly Activities Committee, Fall 2011 to Spring 2014
- Search Committee Chair, Position: Assistant Director of Office of Sponsored Programs and Research, Fall 2010
- Search Committee member, Position: Inorganic Assistant Professor of Chemistry, Fall 2010
- Search Committee member, Position: Endowed Chair of Chemistry, Spring 2011
- Member, American Democracy Project subgroup on Undergraduate Research (Fall 2010)
- Workshop Attendee to Council of Public Liberal Arts Colleges (COPLAC) and the Consortium for Undergraduate Research (CUR), Asheville, NC June 28-9th, 2011 held towards institutionalizing undergraduate research,

Reviewer/Editorial Service:

- Academic Judge for 2014 and 2015 Surrey Village Charter School Annual Science Fair (Keene, NH)
- Reviewer of journal manuscripts for Analytical Chemistry (3)
- Reviewer of journal manuscripts for Analyst (4)
- Reviewer of journal manuscripts for the Journal of Chemical Education (1)
- Reviewer of grant proposals from the Petroleum Research Fund (1)

Research Background:

Post-Doctoral Research:

Department of Chemistry, Colorado State University, 2007-Present
Advisor: Prof. Charles S. Henry

- Fabrication of polydimethylsiloxane (PDMS) microfluidic devices
- Small molecule analysis with microchip capillary electrophoresis using either electrochemical or fluorescence detection, and conventional bench top capillary electrophoresis
- Characterization of alternative electrode materials for electrochemical detection in microchip capillary electrophoresis
- Microchip capillary electrophoresis analysis of biological fluids, such as urine, blood, and plasma, obtained from canines undergoing chemotherapy at the Colorado State University Animal Cancer Center

Post-Doctoral Research:

Department of Chemistry, University of Washington, 2006-2007
Advisor: Prof. Norman J. Dovichi

- Development of instrumentation for multi-channel one and two-dimensional capillary electrophoresis with laser induced detection

Doctoral Research:

Department of Chemistry, University of Washington, 2001-2006
Advisor: Prof. Norman J. Dovichi

- Assembled one and two-dimensional capillary electrophoresis instruments that employ laser induced fluorescence detectors for the ultrasensitive analysis of labeled biomolecules
- Generated yoctomole (10^{-24} mole) instrumental limits of detection for fluorescently labeled protein
- Improved methodology of two dimensional capillary electrophoresis (2D-CE) for the efficient separation of complex biological mixtures; demonstrated better than 1% relative standard deviation in component mobility for the 50 most intense components.
- Decreased 2D-CE analysis time from 4 hours to less than 50 minutes, while maintaining resolution, separation efficiency, and peak capacity
- Collaborated with the Fred Hutchinson Cancer Research Center to obtain over 15 biopsies from multiple patients with Barrett's esophagus. Samples from different tissue types were subjected 2D-CE analysis and compared in an effort to provide a prognostic indicator of disease progression
- Experienced with single cell analysis; including cell culture, cell manipulation and capillary injection

Undergraduate Research:

Department of Chemistry, Bucknell University, 2000-2001
Advisors: Dr. Timothy Strein and Dr. James Swan

- Optimized a Sciex API III^{+} triple quadrapole electrospray ionization mass spectrometer for small peptide fragmentation and identification
- Developed an experimental method for the identification of unknown dipeptides using collision induced dissociation MS/MS, for incorporation into an undergraduate Instrumental Analysis course

Undergraduate Research:

Department of Chemistry, Colgate University, 1998-1999
Advisor: Dr. John Cochran

- Organic synthesis and characterization of bifunctional antifungal agents.
- Instrumentation used for synthetic validation and purification included C^{13} NMR, IR, UV-VIS, TLC, and silica based column chromatography

Publications:

1) Mentele, M.; Noblitt, S. D.; Kraly, J. R.; Henry, C. S., "Continuous Flow Interface for Microfluidic Devices," Proceedings microTAS 2010, Gronigen, Netherlands, 2010, 1019-1021.
2) Kraly, J. R.; Holcomb, R. E.; Guan, Q.; Henry, C. S., Microfluidic applications of metabolomics and metabolic profiling. Analytica Chimica Acta 2009, Vol 653 (1), p 23-35.
3) Holcomb, R. E.; Kraly, J. R.; Henry, C. S., Electrode array detector for microchip capillary electrophoresis. Analyst 2009, 134 486 – 492.
4) Whitmore, C.; Sobhani, K.; Bonn, R.; Mao, D.; Turner, E.; Kraly, J.; Michels, D.; Palcic, M.; Hindsgual, O.; Dovichi, N.J., Capillary and Microchip Electrophoresis and Associated Microtechniques. 3rd ed., Boca Raton, FL, CRC Press, 2008, p 611-630.

5) Noblitt, S. D.; Kraly, J. R.; VanBuren, J. M.; Hering, S. V.; Collett, J. L., Jr.; Henry, C. S., Integrated membrane filters for minimizing hydrodynamic flow and filtering in microfluidic devices. Anal Chem 2007, 79, (16), 6249-54.
6) Zhu, C.; He, X.; Kraly, J. R.; Jones, M. R.; Whitmore, C. D.; Gomez, D. G.; Eggertson, M.; Quigley, W.; Boardman, A.; Dovichi, N. J., Instrumentation for medium-throughput two-dimensional capillary electrophoresis with laser-induced fluorescence detection. Anal Chem 2007, 79, (2), 765-8.
7) Kraly, J. R.; Jones, M. R.; Gomez, D. G.; Dickerson, J. A.; Harwood, M. M.; Eggertson, M.; Paulson, T. G.; Sanchez, C. A.; Odze, R.; Feng, Z.; Reid, B. J.; Dovichi, N. J., Reproducible two-dimensional capillary electrophoresis analysis of Barrett's esophagus tissues. Anal Chem 2006, 78, (17), 5977-86.
8) Kraly, J.; Fazal, M. A.; Schoenherr, R. M.; Bonn, R.; Harwood, M. M.; Turner, E.; Jones, M.; Dovichi, N. J., Bioanalytical applications of capillary electrophoresis. Anal Chem 2006, 78, (12), 4097-110.
9) Fazal, M. A.; Michels, D. A.; Kraly, J. R.; Dovichi, N. J., Proteome Analysis by Capillary Electrophoresis. Wiley: New York, 2005; Vol. 1, p 211-222.
10) Hu, S.; Le, Z.; Newitt, R.; Aebersold, R.; Kraly, J. R.; Jones, M.; Dovichi, N. J., Identification of proteins in single-cell capillary electrophoresis fingerprints based on comigration with standard proteins. Anal Chem 2003, 75, (14), 3502-5.

Invited Seminar Presentations (Chemistry)

1) Lichens as Biomonitors: An Analytical Investigation of the Environmental Distribution of Polycyclic Aromatic Hydrocarbons. Kraly, J. R. Invited Seminar Speaker, Department of Chemistry, Fort Lewis College, Durango, CO. December 2nd, 2011
2) Environmental Monitoring of Poly-Aromatic Compounds in Lichen using Capillary Electrophoresis and Gas Chromatography Mass Spectrometry. Kraly, J. R. Invited Seminar Speaker, Department of Environmental Studies, Keene State College, Keene, NH. March 8th, 2011.

Presentations at Conferences: (underline indicates presenting author)

1) Analysis of Organic Compounds Isolated from Particulate Matter Produced by Biodiesel and Diesel Fuels. Niko Brown, Michael Cavacas, Dr. Nora Traviss, Dr. James Kraly. Poster. American Chemical Society National Meeting. Denver, Colorado. March 2015.
2) The Characterization of Resveratrol in Japanese Knotweed. Ulcickas, J. R. W., Junge, D., M., and Kraly, J. R. (poster presentation) American Chemical Society National Meeting, Dallas, Texas. March 16-19th 2014
3) Monitoring Polycyclic Aromatic Compounds in New Hampshire Lichen using Gas Chromatography Mass Spectrometry. Abeleira, A., and Kraly, J. R. (poster presentation) 23rd International Symposium on Polycyclic Aromatic Compounds, University of Munster, Munster, Germany. September 5th, 2011.
4) Environmental Monitoring of Polycyclic Aromatic Hydrocarbons in lichen using Capillary Electrophoresis and Gas-Chromatography-Mass Spectrometry. Kraly, J. R.; Meier, J.; Abeleira, A. (poster presentation) 62nd Pittsburgh Conference on Analytical Chemistry and Applied Spectroscopy, Atlanta, Georgia. March 15-18, 2011.
5) Multi-material Electrochemical Array Detection using Microchip Capillary Electrophoresis.

Kraly, J. R.; Holcomb, R. E.; Lana, S. E.; Henry, C. S. (poster presentation) 60th Pittsburgh Conference on Analytical Chemistry and Applied Spectroscopy, Chicago, Illinois. March 18-13, 2009.

6) Selective Detection using Electrode Arrays and Microchip Capillary Electrophoresis. Kraly, J. R.; Holcomb, R. E.; Guan, Q.; and Henry, C. S. (oral presentation) 50th Rocky Mountain Conference on Analytical Chemistry. Breckenridge, Colorado. July 27-31, 2008.
7) A Novel Electrochemical Array Detector for Enhanced Selectivity for Microchip Capillary Electrophoresis. Kraly, J. R.; Holcomb, R. E.; Guan, Q.; and Henry, C. S. (oral presentation) 59th Pittsburgh Conference on Analytical Chemistry and Applied Spectroscopy. New Orleans, Louisiana. March 1-7, 2008.
8) High Speed and High Sensitivity Two Dimensional Capillary Electrophoresis with Laser Induced Fluorescence of Barrett's Esophageal Tissues. Kraly, J. R.; Jones, M. R.; Reid, B. J.; and Dovichi, N. J. (oral presentation) 20th International Symposium on MicroScale Bioseparations. Amsterdam, the Netherlands. January 22-26, 2006.
9) Rapid Separations of Barrett's Esophageal Proteins using Two Dimensional Capillary Electrophoresis with Laser Induced Fluorescence. Kraly, J. R.; Jones, M. R.; Reid, B. J.; and Dovichi, N. J. (oral presentation) 22nd Annual American Electrophoresis Society Meeting. Cincinnati, Ohio. October 30-November 4, 2005.
10) Rapid Separations of Barrett's Esophageal Proteins using Two Dimensional Capillary Electrophoresis with Laser Induced Fluorescence. Kraly, J. R.; Jones, M. R.; Reid, B. J.; and Dovichi, N. J. (poster) 18th International Symposium on MicroScale Bioseparations. New Orleans, Louisiana. February 12-17, 2005.
11) Proteomic Analysis of Barrett's Esophagus using Two Dimensional Capillary Electrophoresis with Laser Induced Fluorescence. Kraly, J. R.; Jones, M. R.; Reid, B. J.; and Dovichi, N. J. (oral presentation) Canadian Proteome Society: New Technologies, Novel Approaches in Proteomics Research. Vancouver, British Columbia. January 24, 2005
12) Proteomic Analysis of Barrett's Esophagus using Capillary Electrophoresis with Laser Induced Fluorescence. Kraly, J. R.; Jones, M. R.; Reid, B. J.; and Dovichi, N. J. (oral presentation) 15th Methods in Protein Structure and Analysis. University of Washington, Seattle, Washington. August 29 to September 2, 2004.
13) Protein Separations at Elevated Field Strengths using Capillary Electrophoresis with Laser Induced Fluorescence. Kraly, J. R.; Jones, M. R.; Turner, E.; and Dovichi, N. J. (poster) 15th Annual Frederick Conference on Capillary Electrophoresis/Proteomics. National Cancer Institute at Frederick, Maryland. October 18-19, 2004.
14) Protein Fingerprinting of Single Mammalian Cells using Capillary Electrophoresis with Laser Induced Fluorescence. Kraly, J. R.; Jones, M. R.; Harwood, M.; and Dovichi, N. J. (oral presentation) 14th Annual Frederick Conference on Capillary Electrophoresis. National Cancer Institute at Frederick, Maryland. November 3-4, 2003.
15) Synthesis of Stannyl Dithiocarbamates. Kraly, J. R.; and Cochran, J. (oral presentation) 14th National Conference on Undergraduate Research. Missoula, Montana. April 27-29, 2000.

References (Administrative):

1) Dr. Karrie Kalich – (prior supervisor) VP Academic Affairs Landmark College –603-355-7020
2) Dr. Michael Welsh – (prior assistant dean) Keene State College – mwelsh@keene.edu
3) Lynn Arnold – (program support, CTE, Research) Keene State College – larnold@keene.edu

References (Chemistry):

4) Dr. Charles S. Henry – Colorado State University
   cshenry@lamar.colostate.edu, phone: 970-491-2852, fax: 970-491-1801
5) Dr. Timothy Strein – Bucknell University
   strein@bucknell.edu, phone: 570-577-1641, fax: 570-577-1739