

CYNTHIA K. LARIVE

CONTACT INFORMATION:

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PERSONAL: Married and mother of two daughters Dr. Erin Kaplan (32) and Ms. Megan Larive (30)

EDUCATION:

B.S. in Chemistry, South Dakota State University, 1980
M.S. in Inorganic Chemistry, Purdue University, 1982
Ph.D. in Analytical Chemistry, University of California, Riverside, 1992

PROFESSIONAL EXPERIENCE:

Interim Provost and Executive Vice Chancellor, UC-Riverside, 2/2017 – present
Vice Provost for Undergraduate Education, UC-Riverside, 7/2016 -2/2017
Interim Dean, College of Natural and Agricultural Sciences (CNAS), UC-Riverside, 7/2015 – 12/2015
Divisional Dean for Physical Sciences and Mathematics, UC-Riverside, 10/2013 - 6/2015 and 1/2016-7/2016
Chair, Department of Chemistry, UC-Riverside, 7/2012 - 9/2013
Professor of Chemistry, Step VIII; cooperating faculty member in Bioengineering, and Biomedical Sciences, member of the Center for Plant Cell Biology (CEPCEB), the Institute for Integrative Genome Biology (IGGB), and the Environmental Toxicology graduate program, 2005 -present
Sabbatical Leave, Ronzoni Institute for Chemistry and Biochemistry Research, Milan, Italy, 2012
Director Analytical Chemistry Instrumentation Facility, 2006 - 2010
Director, UC-Riverside NSF REU Program in Bioanalytical Science, 2006 - 2008
Professor of Chemistry and Courtesy Prof. Pharmaceutical Chemistry, University of Kansas, 2003 - 2004
Director, University of Kansas NSF REU Program in Chemistry, 2003 - 2004
Associate Professor of Chemistry, University of Kansas, 1998-2003
Courtesy Associate Professor of Pharmaceutical Chemistry, University of Kansas, 2001 - 2003
Sabbatical Leave with Professor Jonathan Sweedler, University of Illinois, 2001
Assistant Professor of Chemistry, University of Kansas, 1992 - 1998
Graduate Research and Teaching Assistant, UC-Riverside, 1988 -1992
Manager, AA-ICP Lab, Engineering and Mining Experiment Station, South Dakota School of Mines and Technology, Rapid City, South Dakota 1984 - 1988

HONORS AND AWARDS

National Award for Volunteer Service to the American Chemical Society, 2015
Fellow, Academy for Innovative Higher Education Leadership, 2014 -2015
ACS Fellow, 2011
UC-Riverside Innovative Teaching Award, 2011
AAAS Fellow, 2008
J. Calvin Giddings Award for Excellence in Education, ACS Division of Analytical Chemistry, 2007
Honorary Doctorate, College of Pharmacy, Semmelweis University, Budapest, Hungary, 2005
IUPAC Fellow, 2004
University of Kansas Award for Teaching Excellence, 2002
IUPAC Young Observer, 2001
Kaw Valley Girl Scout Woman of Distinction, 1997
Eli Lilly New Faculty Award, 1996
National Science Foundation CAREER Award, 1995

Orange County Graduate Women in Science Scholarship, 1991
U.C. Riverside Dissertation Fellowship, 1991
ACS Division of Analytical Chemistry Full-year Fellow, 1990
U.C. Riverside Chancellor's Distinguished Fellow 1988, 1989
S.D.S.U. Stephen Briggs Scholarship, 1976-1980
S.D.S.U. Outstanding Analytical Chemistry Student, 1979

EDITORIAL ACTIVITIES

Associate Editor, *Analytical Chemistry*, 6/2015 - present
Associate Editor, *Analytical and Bioanalytical Chemistry*, 1/2013 - 12/2014
Editorial Advisory Board Member, *Analytical Chemistry*, 2013 - 2015
Editorial Advisory Board Member, *Analytical and Bioanalytical Chemistry*, 2001 - 2012,
Editor-in-chief, Analytical Sciences Digital Library; www.asdlib.org, an NSF-funded digital library
Reviewer for Analyst, Analytical and Bioanalytical Chemistry, Analytical Biochemistry, Analytical Chemistry, Analytical Methods, Applied Spectroscopy, Biochemistry, Biopolymers, Chirality, Environmental Science and Technology, Glycobiology, Journal of Agricultural and Food Chemistry, Journal of the American Chemical Society, Journal of the American Society for Mass Spectroscopy, Journal of Biomolecular NMR, Journal of Carbohydrate Research, Journal of Chemical Education, Journal of Colloid and Interface Science, Journal of Magnetic Resonance, Journal of Pharmaceutical and Biomedical Analysis, Journal of Physical Chemistry, Langmuir, Magnetic Resonance in Chemistry, Metabolomics, Nature Chemical Biology, Talanta, Tetrahedron Letters.

H-Index: 40, https://scholar.google.com/citations?user=pX_OGWwAAAAJ&hl=en

PUBLICATIONS: (underlining denotes coauthors: undergraduate, PUI faculty, or high school teacher)

1. D.L. Rabenstein, C.K. Larive, Rotating-Frame Nuclear Overhauser Enhancement Spectroscopy of Aqueous Solutions with Elimination of the Water Resonance by Transverse Relaxation, *J. Magn. Res.* **87**:352-356 (1990).
2. C.K. Larive, D.L. Rabenstein, Two-dimensional ^1H NMR Spectroscopy of Aqueous Solutions with Elimination of the Water Resonance by Transverse Relaxation: Application to the Assignment of the ^1H NMR Spectrum of Reduced Arginine Vasopressin, *Mag. Reson. Chem.* **29**:409-417 (1991).
3. C.K. Larive, L. Guerra, D.L. Rabenstein, Cis/Trans Conformational Equilibrium across the Cysteine⁶-Proline Peptide Bond of Oxytocin, Arginine Vasopressin and Lysine Vasopressin, *J. Am. Chem. Soc.* **114**:7331-7337 (1992).
4. C.K. Larive, D.L. Rabenstein, Characterization of the Dynamics of the Cis-Trans Isomerization about the Proline Amide Bond of Oxytocin and Arginine Vasopressin in Aqueous and Methanol Solutions, *J. Am. Chem. Soc.* **115**:2833-2836 (1993).
5. C. Schöneich, A. Hühmer, S.R. Rabel, J.F. Stobaugh, S.D.S. Jois, C.K. Larive, T.J. Siahhan, T.C. Squier, D.J. Bigelow, T. Williams, Separation and Analysis of Peptides and Proteins, *Anal. Chem.* **67**:155R-181R (1995).
6. M. Lin, D.A. Jayawickrama, R.A. Rose, J.A. DeViscio, C.K. Larive, NMR Spectroscopic Analysis of the Selective Complexation of the Cis and Trans Isomers of Phenylalanyl-Proline by β -Cyclodextrin, *Anal. Chim. Acta* **307**:449-457 (1995).
7. M. Lin, C.K. Larive, Detection of Insulin Aggregates with Pulsed-field Gradient NMR Spectroscopy, *Anal. Biochem.* **229**:214-220 (1995).
8. C.K. Larive, M. Lin, B.J. Piersma, W.R. Carper, Diffusion Ordered Spectroscopy (DOSY) of Room Temperature Chloroaluminate Melts, *J. Phys. Chem.* **99**:12409-12412 (1995).
9. D. Jayawickrama, S. Zink, D. Vander Velde, R.I. Effiong, C.K. Larive, Conformational Analysis of the β -amyloid Peptide Fragment, $\beta(12-29)$, *J. Biomol. Struct. Dynam.* **13**:229-244 (1995).
10. W.R. Carper, G.J. Mains, B.J. Piersma, S.L. Mansfield, C.K. Larive, ^{13}C NMR Relaxation and ^1H Diffusion (DOSY) Studies of an Acidic Chloroaluminate Melt, *J. Phys. Chem.* **100**:4724-4728 (1996).
11. M. Lin, M.F. Chan, V.N. Balaji, R.S. Castillo, C.K. Larive, The Synthesis and Conformational Analysis of Cyclic Pentapeptide Endothelin Antagonists, *Int. J. Peptide Protein Res.* **48**:229-239 (1996).

12. C.K. Larive, A. Rogers, M. Morton, W.R. Carper, ^{113}Cd NMR Binding Studies of Cd-Fulvic Acid Complexes: Evidence of Fast Exchange, *Environ. Sci. Technol.* **30**:2828-2831 (1996).
13. A.F. Hühmer, G.I. Aced, M.D. Perkins, R.N. Gursoy, D.S. Seetharama Jois, C.K. Larive, T.J. Siahann, C. Schöneich, Separation and Analysis of Peptides and Proteins, *Anal. Chem.* **69**:29R-57R (1997).
14. A. M. Dixon, C.K. Larive, Modified Pulsed-field Gradient NMR Experiments for Improved Selectivity in the Measurement of Diffusion Coefficients in Complex Mixtures: Application to the Analysis of the Suwannee River Fulvic Acid, *Anal. Chem.* **69**:2122-2128 (1997).
15. M.D. Morton, F.H. Walters, D.S. Aga, E.M. Thurman, C.K. Larive, NMR Identification of New Sulfonic Acid Metabolites of Chloroacetanilide Herbicides, *J. Agric. Food Chem.* **45**:1240-1243 (1997).
16. G.T. Timberlake, A.W. Gemperli, C.K. Larive, K.A. Warren, M.A. Mainster, Free-Radical Production by Neodymium:YAG Laser Photodisruption, *Ophthalm. Surg. Lasers* **28**:582-589 (1997).
17. C. K. Larive, D. Jayawickrama, L. Orfi, Quantitative Analysis of Peptides with NMR Spectroscopy, *Appl. Spectrosc.* **51**:1531-1536 (1997).
18. C.K. Larive, S.M. Levine, The pH Dependence of Aggregate Formation by Galactosylsphingosine (Psychosine) with ^1H NMR and Electron Microscopy. Pathological Implications for Krabbe's Disease, *Lipids* **32**:1035-1040 (1997).
19. S.L. Mansfield, D.A. Jayawickrama, J.S. Timmons, C.K. Larive, Measurement of Peptide Aggregation with Pulsed-field Gradient Nuclear Magnetic Resonance Spectroscopy, *Biochim. Biophys. Acta* **1382**:257-265 (1998).
20. C.K. Larive, M. Lin, B.S. Kinnear, B.J. Piersma, C.E. Keller, W.R. Carper, ^{13}C and ^{27}Al NMR Relaxation, Viscosity and ^1H Diffusion (DOSY) Studies of an Ethylaluminum Dichloride Melt, *J. Phys. Chem.* **102**:1717-1723 (1998).
21. L. Orfi, M. Lin, C.K. Larive, Measurement of SDS Micelle-Peptide Association using ^1H NMR Chemical Shift Analysis and Pulsed-field Gradient NMR Spectroscopy, *Anal. Chem.* **70**:1339-1345 (1998).
22. A. A. DiSpirito, J.A. Zahn, D.W. Graham, H.J. Kim, C.K. Larive, C.D. Cox, A. Taylor, Copper-Binding Compounds from *Methylophilus trichosporium* OB3b, *J. Bacteriology* **180**:3606-3613 (1998).
23. J. Hong, S. Sun, T. Derrick, C.Larive, K.B. Schowen, R.L. Schowen, Transition-State Theoretical Interpretation of the Catalytic Power of Pyruvate Decarboxylases: The Roles of Static and Dynamical Considerations, *Biochim. Biophys. Acta* **1385**:87-200 (1998).
24. D.A. Jayawickrama, C.K. Larive, E.F. McCord, D.C. Roe, Polymer Additives Mixture Analysis using Pulsed-field Gradient NMR Spectroscopy, *Magn. Reson. Chem.* **36**:755-760 (1998).
25. V.M. Rao, M. Lin, C.K. Larive, M.Z. Southard, A Mechanistic Study of Griseofulvin Dissolution into Surfactant Solutions in Laminar Flow Conditions, *J. Pharm. Sci.* **87**:786-796 (1998).
26. A.M. Dixon, C.K. Larive, E.A. Nantis, W.R. Carper, Direct Determination of Correlation Times: Analysis of the Cd-CyDTA Complex by the Relaxation Rate Ratio Method, *J. Phys. Chem.* **102**:10573-10578 (1998).
27. C.K. Larive, Nuclear Magnetic Resonance Spectroscopy, *The McGraw-Hill Encyclopedia of Science and Technology* McGraw-Hill, Inc., New York, 8th ed., 1997, Vol. 12, pp. 168-174.
28. C.K. Larive, S. Lunte, M. Zhong, M. Perkins. G.S. Wilson, G. Gokulrangan, T. Williams. F. Afroz, C. Schöneich, T.S. Derrick, R. Middaugh, S. Bogdanowich-Knipp, Separation and Analysis of Peptides and Proteins, *Anal. Chem.* **71**:389R-423R (1999).
29. A.M. Dixon, M.A. Mai, C.K. Larive, Interaction Between 4'-Fluoro-1'-Acetonaphthone with Natural Aquatic Organic Material, *Environ. Sci. Technol.* **33**:958-964 (1999).
30. D.A. Jayawickrama, C.K. Larive, Analysis of the Trimethylsilylpropionic Acid - β (12-28) Peptide Binding Equilibrium with NMR Spectroscopy, *Anal. Chem.* **71**:2117-2112 (1999).
31. S.L. Mansfield, A.J. Gotch, G.S. Harms, C.K. Johnson, C.K. Larive, Complementary Analysis of Peptide Aggregation by NMR and Time-Resolved Laser Spectroscopy, *J. Phys. Chem.* **103**:2262-2269 (1999).
32. T. Derrick, C.K. Larive, The Use of PFG-NMR for the Measurement of Diffusion Coefficients of the Cis and Trans Isomers of Proline-Containing Peptides, *Appl. Spectrosc.* **53**:1595-1600 (1999).
33. A.M. Dixon, C.K. Larive, NMR Spectroscopy with Spectral Editing for the Analysis of Complex Mixtures, *Appl. Spectrosc.* **53**:426A-440A (1999).

34. K. F. Morris, B. J. Cutak, A. M. Dixon, C. K. Larive, Analysis of Diffusion Coefficient Distributions in Humic and Fulvic Acids by means of Diffusion Ordered NMR Spectroscopy, *Anal. Chem.* **71**:5315-5321 (1999).
35. W.H. Graham, D.W. Graham, F. deNoyelles, Jr., V.H. Smith, C.K. Larive, E.M. Thurman, Metolachlor and Alachlor Breakdown Product Formation Patterns in Aquatic Field Microcosms, *Environ. Sci. Technol.* **33**:4471-4476 (1999).
36. D. A. Jayawickrama, C. K. Larive, Investigation of Aggregation and Binding of $\beta(12-28)$ using NMR Spectroscopy, in *Peptides, Frontiers of Peptide Science*, J. P. Tan and P. T. P. Kaumaya, Eds., Kluwer, Dordrecht, 1999, pp. 807-808.
37. J. R. Lead, K. J. Wilkinson, E. Balnois, B. J. Cutak, C. K. Larive, S. Assemi, R. Beckett, Diffusion Coefficients and Polydispersities of the Suwannee River Fulvic Acid: Comparison of Fluorescence Correlation Spectroscopy, Pulsed-Field Gradient Nuclear Magnetic Resonance, and Flow Field-Flow Fractionation, *Environ. Sci. Technol.* **34**:3508-3513 (2000).
38. M. L. Pommès, C. K. Larive, E. M. Thurman, W. Reed Green, W. H. Orem, C. E. Rostad, T. B. Coplen, B. J. Cutak, A. M. Dixon, Source and Haloacetic Acid/Trihalomethane Formation Potentials of Aquatic Humic Substances in the Wakarusa River and Clinton Lake near Lawrence, KS, *Environ. Sci. Technol.* **34**:4278-4286 (2000).
39. J. L. Razak, B. J. Cutak, C. K. Larive, C. E. Lunte, Correlation of the Capacity Factor in Vesicular Electrokinetic Chromatography, *Pharm. Res.* **18**:104-111 (2001).
40. S. A. Rogers, D. Vander Velde, C. K. Larive, Evaluation of NMR Diffusion Measurements for the Conformational Analysis of Flexible Peptides, *Fresenius J. Anal. Chem.* **369**:308-312 (2001).
41. W. H. Otto, W. R. Carper, C. K. Larive, Measurement of Cadmium(II) and Calcium(II) Complexation by Fulvic Acids Using ^{113}Cd NMR, *Environ. Sci. Technol.* **35**:1463-1468 (2001).
42. W. H. Otto, S. D. Burton, W. R. Carper, C. K. Larive, Examination of Cadmium(II)-Fulvic Acid Complexes using ^{113}Cd NMR Relaxation Measurements, *Environ. Sci. Technol.* **35**:4900-4904 (2001).
43. M. Lacey, J. V. Sweedler, C. K. Larive, D. Farrant, A. Pipe, Analysis of a Single Combichem Bead, *J. Magn. Reson.* **153**:215-222 (2001).
44. W. H. Otto, C. K. Larive, Improved Spin-echo Edited NMR Diffusion Measurements, *J. Magn. Reson.* **153**:273-276 (2001).
45. T. S. Derrick, E. F. McCord, C. K. Larive, Analysis of Protein/Ligand Interactions with NMR Diffusion Measurements: The Importance of Eliminating the Protein Background, *J. Magn. Reson.* **155**:217-225 (2002).
46. W. H. Otto, M. H. Keefe, J. T. Hupp, C. K. Larive, Analysis of Molecular Square Size and Purity via Pulsed-Field Gradient NMR Spectroscopy *Inorg. Chem.* **41**:6172-6174 (2002).
47. L. H. Lucas, W. H. Otto, C. K. Larive, The 2D-J- DOSY Experiment: Resolving Diffusion Coefficients in Mixtures, *J. Magn. Reson.* **156**:138-145 (2002).
48. A. M. Wolters, D. A. Jayawickrama, C. K. Larive, J. V. Sweedler, Capillary Isotachopheresis/NMR: Extension to Trace Impurity Analysis and Improved Instrumental Coupling, *Anal. Chem.* **74**:2306-2313 (2002).
49. T. S. Derrick, L. H. Lucas, J.-L. Dimicoli, C. K. Larive, The ^{19}F Diffusion NMR Analysis of Enzyme-Inhibitor Binding, *Mag. Res. Chem.* **40**:S98-S105 (2002).
50. A. M. Wolters, D. A. Jayawickrama, C. K. Larive, J. V. Sweedler, Insights into the cITP process using on-line NMR spectroscopy, *Anal. Chem.* **74**:4191-4197 (2002).
51. W. Sun, C. K. Larive, M. Z. Southard, A Mechanistic Study of Danazol Distribution into Ionic Surfactant Solutions, *J. Pharm. Sci.* **92**:424-435 (2003).
52. W. H. Otto, D. J. Britten, C. K. Larive, NMR Diffusion Analysis of Surfactant-Humic Substance Interactions, *J. Colloid Interface Sci.* **261**:508-513 (2003).
53. B. A. Wilson, V. A. Smith, F. deNoyelles Jr., C. K. Larive Ecological Impact Assessment of Three Pharmaceutical and Personal Care Product Chemicals Using Freshwater Algal Assemblies, *Environ. Sci. Tech.* **37**:1713-1719 (2003).
54. L. H. Lucas, J. Yan, C. K. Larive, E. R. Zartler, M. J. Shapiro Transferred Nuclear Overhauser Effect in Nuclear Magnetic Resonance Diffusion Measurements of Ligand-Protein Binding, *Anal. Chem.* **75**: 627-634 (2003).

55. L. A. Cardoza, V. K. Almeida, A. Carr, D. W. Graham, C. K. Larive, Separations Coupled with NMR Detection: Emerging Techniques for the Study of Contamination Fate, *Trends in Analytical Chemistry* **22**:766-775 (2003).
56. C. W. Knapp, D. W. Graham, G. Berardesco, F. deNoyelles Jr., B. J. Cutak, C. K. Larive, Nutrient Level, Microbial Activity, and Alachlor Transformation in Aerobic Aquatic Systems, *Water Res.* **37**:4761-4769 (2003).
57. L. A. Cardoza, T. D. Williams, B. Drake, C. K. Larive, LC/MS/MS and LC/NMR for the Structure Elucidation of Ciprofloxacin Transformation Products in Pond Water Solution, in *Mass Spectrometry, LC/MS/MS and TOF/MS: Analysis of Emerging Contaminants*, ACS Symposium volume 850, I. Ferrer and E. M. Thurman Eds., (2003) Oxford University Press and The American Chemical Society, Washington, pp.146-160.
58. L.A. Cardoza, B. J. Cutak, J. Ketter, C. K. Larive, HPLC-NMR Investigation of the Isomerization of Alachlor-Ethane Sulfonic Acid, *J. Chromatogr. A.* **1022**:131-137 (2004).
59. L. H. Lucas, C. K. Larive, Measuring Ligand-Protein Binding Using NMR Diffusion Measurements, *Concepts in Magnetic Resonance* **20A**:24-41 (2004).
60. K. E. Price, L. H. Lucas, C. K. Larive, Analytical Applications of NMR Diffusion Measurements, *Anal. Bioanal. Chem.* **378**:1405-1407 (2004).
61. C. S. Uyguner, C. Hellriegel, W. H. Otto, C. K. Larive, Characterization of Structural Features of Humic Substances: Implications for Trihalomethane Formation, *Anal. Bioanal. Chem.* **378**:1579-1586 (2004).
62. H.J. Kim, D. W. Graham, A. A. DiSpirito, M. Alterman, N. Galeva, C. K. Larive, D. Asunskis, P. M. A. Sherwood, Methanobactin: A Copper-Acquisition Compound from Methane-Oxidizing Bacteria, *Science* **305**:612-1615 (2004).
63. L. A. Cardoza, A. K. Korir, W. H. Otto, C. J. Wurrey, C. K. Larive, Environmental Applications of NMR Spectroscopy, *Prog. NMR Spectrosc.* **45**:209-238 (2004).
64. L. H. Lucas, M. A. Cerny, Y. M. Koen, R. P. Hanzlik, C. K. Larive, ¹H High-Resolution Magic Angle Spinning (HR-MAS) Analysis of Ligand Density on Resins using a Resin Internal Standard, *Anal. Bioanal. Chem.* **380**:627-631(2004).
65. L. H. Lucas, K. E. Price, C. K. Larive, Ternary Complex Formation of Human Serum Albumin with Two Drug Site II Ligands Revealed by NMR Diffusion and NOE Spectroscopy, *J. Am. Chem. Soc.* **126**:14258-14266, (2004).
66. L. H. Lucas, C. K. Larive, Quantitative Analysis in Organic Synthesis with NMR, In *Analysis and Purification Methods in Combinatorial Chemistry*, B. Yang, Ed. Wiley Interscience, Hoboken, N. J., 2004 pp 3-36.
67. L. A. Cardoza, C.W. Knapp, C.K. Larive, J.B. Belden, M. Lydy, D.W. Graham, Factors Affecting the Fate of Ciprofloxacin in Aquatic Field Systems, *Water, Soil, and Air Pollution*, **161**:383-398 (2005).
68. K. F. Morris, B. A. Becker, J. Tarus, V. K. Almeida, A. L. Froberg, C. K. Larive, Using NMR Spectroscopy to Develop Insights into the Intermolecular Interactions Underlying Electrokinetic Chromatography, *Anal. Chem.* **77**:254 A–263 A (2005).
69. K. E. Price, S. S. Vandaveer, C. E. Lunte, C. K. Larive, Tissue Targeted Metabonomics: Metabolic Profiling by Microdialysis Sampling and Microcoil NMR, *J. Pharm. Biomed. Anal.* **38**:904-909 (2005).
70. L. H. Lucas, C. K. Larive, P. S. Wilkinson, S. Huhn, Progress Toward Automated Metabolic Profiling of Human Serum: Comparison of CPMG and Gradient-Filtered NMR Analytical Methods, *J. Pharm. Biomed. Anal.* **39**:156-163 (2005).
71. L. H. Lucas, S. F. Wilson, C. E. Lunte, C. K. Larive, Drug Profiling in Rat Tissue by High-Resolution Magic Angle Spinning (HR-MAS) NMR Spectroscopy, *Anal. Chem.* **77**:2978-2984 (2005).
72. H. J. Kim, N. Galeva, C. K. Larive, M. Alterman, D. W. Graham, Purification and Physical-Chemical Properties of Methanobactin: A Chalkophore from *Methylosinus trichosporium* OB3b, *Biochemistry* **44**:5140-5148 (2005).
73. V. K. Almeida, C. K. Larive, Insights into Cyclodextrin Interactions during Sample Stacking using Capillary Isotachopheresis with On-Line Microcoil NMR Detection, *Magn. Reson. Chem.* **43**:755-761 (2005).
74. A. K. Korir, V. K. Almeida, D. S. Malkin, C. K. Larive, Separation and Analysis of Nanomole Quantities of Oligosaccharides using On-line Capillary Isotachopheresis Coupled with NMR Detection, *Anal. Chem.* **77**:5998-6003 (2005).

75. W. Knapp, L.A. Cardoza, J.N. Hawes, E.M.H. Wellington, C.K. Larive, D.W. Graham, Fate and Effects of Enrofloxacin in Aquatic Systems under Different Light Conditions, *Environ. Sci. Technol.* **39**:9140-9146 (2005).
76. B. A. Becker, K. F. Morris, C. K. Larive, An Improved Method for Suppressing Protein Background in PFG NMR Experiments to Determine Ligand Diffusion Coefficients in the Presence of Receptor, *J. Magn. Reson.* **181**:327-330 (2006).
77. K. F. Morris, B. A. Becker, B. C. Valle, I. M. Warner, C. K. Larive, Use of NMR Binding Interaction Mapping Techniques to Examine Interactions of Chiral Analytes with Molecular Micelles, *J. Phys. Chem. B.* **110**:17359-17369 (2006).
78. A. Lebrón-Paler, J. E. Pemberton, B.A. Becker, W. H. Otto, C. K. Larive, R. M. Maier, Determination of the Acid Dissociation Constant of the Biosurfactant Monorhamnolipid in Aqueous Solution by Potentiometric and Spectroscopic Methods, *Anal. Chem.* **78**:7649-7658 (2006).
79. A. K. Korir, V. K. Almeida, C. K. Larive, Visualizing Ion Electromigration during Isotachophoretic Separation with cITP-NMR, *Anal. Chem.* **78**:7078-7087 (2006).
80. B. C. Valle, K. F. Morris, K. A. Fletcher, V. Fernand, D. M. Sword, S. Eldridge, C. K. Larive, I. M. Warner, Understanding Chiral Molecular Micellar Separations Using Steady-State Fluorescence Anisotropy, Capillary Electrophoresis, and NMR, *Langmuir* **23**:425-435 (2007).
81. A. K. Korir, C. K. Larive, On-line NMR Detection of Microgram Quantities of Heparin-Derived Oligosaccharides and their Structure Elucidation by Microcoil NMR, *Anal. Bioanal. Chem.* **388**:1707-1716 (2007).
82. Y. Zhao, T. F. Chow, R. S. Puckrin, S. E. Alfred, A. K. Korir, C. K. Larive S. R. Cutler, Chemical Genetic Interrogation of Natural Variation Uncovers a Molecule that is Glyco-Activated, *Nature Chem. Biol.* **3**:716-721 (2007).
83. S. L. Eldridge, V. K. Almeida, A. K. Korir, C. K. Larive, Separation and Analysis of Trace Degradants in a Pharmaceutical Formulation Using On-Line cITP-NMR, *Anal. Chem.* **79**:8446-8453 (2007).
84. M. Rojas-Pierce, B. Titapiwatanakun, E. J. Sohn, F. Fang, C. K. Larive, J. Blakeslee, Y. Cheng, S. Cutler, W. A. Peer, A. S. Murphy, Natasha V. Raikhel, Arabidopsis P-Glycoprotein19 Participates in the Inhibition of Gravitropism by Gravacin, *Chem. Biol.* **14**:1366-1376 (2007).
85. K. E. Price, C. E. Lunte, C. K. Larive, Development of Tissue-Targeted Metabonomics: Part 1. Analytical Considerations, *J. Pharm. Biomed. Anal.* **46**:737-747 (2008)
86. A. K. Korir, J. F. K. Limtiaco, S. M. Gutierrez, C. K. Larive, Ultraperformance Ion-Pair Liquid Chromatography Coupled to Electrospray Time-of-Flight Mass Spectrometry for Compositional Profiling and Quantification of Heparin and Heparan Sulfate, *Anal. Chem.* **80**:1297-1306 (2008).
87. J. Cruz, B. A. Becker, K. F. Morris, C. K. Larive, NMR Characterization of the Host-guest Inclusion Complex between β -cyclodextrin and Doxepin, *Mag. Res. Chem.* **46**:838-845 (2008).
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89. B.A. Becker, C. K. Larive, Probing the Binding of Propranolol Enantiomers to α_1 -Acid Glycoprotein with Ligand-detected NMR Experiments, *J. Phys. Chem. B.* **112**:13581-13587 (2008).
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148. C. Mathon, G. A. Barding, Jr. Separation of Ten Phosphorylated Mono- and Disaccharides using HILIC and Ion-pairing Interactions, *Anal. Chim. Acta*, submitted 1/24/2017, in revision.

Education Articles and Commentary

1. C. K. Larive "Analytical Approaches for Teaching Analytical Science" *Anal. Bioanal. Chem.* **378**:1399-1400 (2004).
2. C. K. Larive "Digital Resources to Enhance Instruction" *Anal. Bioanal. Chem.* **379**:321-322 (2004).
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7. C. K. Larive "Revising the Quantitative Analysis Laboratory – What to Keep? What to Change?" *Anal. Bioanal. Chem.* **386**:1191-1194 (2006).

8. C. K. Larive "A Picture is Worth a Thousand Words: Animations and Simulations in the Teaching of Analytical Science" *Anal. Bioanal. Chem.* **390**: 71-75 (2008).
9. W. F. Polik and C. K. Larive "New ACS Guidelines Approved by CPT" *J. Chem. Ed.* **85**:484-487 (2008).
10. C.K. Larive "The Art of Mentoring Scientists" *ACS Graduate Education Newsletter*, **7**(2):15-16 (2008).
11. C. K. Larive "Quantitative NMR: eLearning Module" *Journal of the Analytical Sciences Digital Library*, <http://www.asdlib.org/onlineArticles/ecourseware/Larive/qnmr1.htm> 9/1/2008.
12. W.F. Polik and C. K. Larive "New ACS Guidelines for Chemistry Programs" *Chemical and Engineering News* **86**:46 (2008).
13. C.K. Larive "The Analytical Sciences Digital Library" *Anal. Bioanal. Chem.* **395**:2425-2428 (2009).
14. C.K. Larive, L.Y. Park "Who is Training the Chemists of Tomorrow?" *Chemical and Engineering News*, **88**(42):35 (2010).
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16. R.S. Kelly, C.K. Larive "The Analytical Sciences Digital Library: Your Online Resource for Teaching Instrumentation" *J. Chem. Ed.* **88**:375-377 (2011).
17. C. Larive "Preparation for Graduate School Starts Now" *In Chemistry – The magazine for ACS student members*, Sept./Oct. 2011, page 2.
18. M. K. Carroll, C. K. Larive "Chemistry and the Premedical Curriculum" *Chemical and Engineering News*, **89**(42):65 (2011).
19. T. Wenzel, C. K. Larive, K. Frederick "Role of Undergraduate Research in an Excellent and Rigorous Undergraduate Chemistry Curriculum" *J. Chem. Ed.* **89**:7-9 (2012).
20. C.K. Larive, A.B. McCoy "Evolution of the ACS Guidelines for Bachelor's Degree Programs" *Chemical and Engineering News*, **90**(1):29 (2012).
21. C.K. Larive "Internet-based Analytical Chemistry Teaching Resources" Point of View article *Brazilian Journal of Analytical Chemistry*, **1**(7):XXIII (Jan/Feb/Mar 2012).
22. T. Kuwana, C. K. Larive "Active Learning with the Analytical Sciences Digital Library" *Bunseki Kagaku (Japan Analyst)* **8**:468 (2012).
23. H.A. Bullen, A. Fitch, R.S. Kelly, C.K. Larive "Environmental Analysis – Lake Nakuru Flamingos: Introduction" <http://community.asdlib.org/activelearningmaterials/environmental-analysis-lake-nakuru-flamingos-introduction/> (2013).
24. H.A. Bullen, A. Fitch, R.S. Kelly, C.K. Larive "Environmental Analysis – Lake Nakuru Flamingos: Pesticides" <http://community.asdlib.org/activelearningmaterials/environmental-analysis-lake-nakuru-flamingos/> (2013).
25. E. Gross, R.S. Kelly, C.K. Larive "Environmental Analysis – Lake Nakuru Flamingos: Heavy Metals" <http://community.asdlib.org/activelearningmaterials/nakuru-heavy-metals/> (2013).
26. C. K. Larive "Happy New Year – renewal, welcome and farewell" *Anal. Bioanal. Chem.* **405**:3-5 (2013).
27. T. J. Wenzel, C. K. Larive "The Analytical Sciences Digital Library: A Resource to Promote Active Learning" *Reviews in Analytical Chemistry*, **33**(1):1-9 (2014).

Invited Lectures (since 2005)

Microcoil NMR: Application to On-line Capillary Separations and Metabonomics Studies, University of North Florida, Jacksonville, FL, 2/26/2005.

Application of HPLC-NMR, HPLC-MS and MS/MS to Investigate the Environmental Fate of Fluoroquinolone Antibiotics, UC Riverside ETOX seminar, 3/30/2005.

Microcoil NMR: Application to On-line Capillary Separations and Metabonomics Studies, CSU San Bernardino, CA, 4/28/2005.

Tissue Targeted Metabonomics Studies of Cardiac Oxidative Stress, CSU Northridge, 10/19/2005

Application of HPLC-NMR, HPLC-MS and MS/MS to Investigate the Environmental Fate of Fluoroquinolone Antibiotics, Pomona College, Clairmont College Consortium, 10/24/2005.

Metabolic profiling with Nuclear Magnetic Resonance, Department of Radiology, Loma Linda University Medical Center, 11/1/2006.

Microcoil NMR probes and their use for On-line Capillary Isotachopheresis-NMR, Department of Chemistry, San Jose State University, 11/14/2006.

Metabonomics: A Discovery-based Approach to Unraveling Physiology, Department of Chemistry and Biochemistry, CSU Los Angeles, 2/16/2007.

Metabonomics: A Discovery-based Approach to Unraveling Physiology, Department of Chemistry and Biochemistry, Alcorn State University, Lorman, MS, 3/29/2007.

Development and Application of Microcoil NMR, Jackson State University, Jackson, MS, 3/30/2007.

Probing Protein-Ligand Interactions with Ligand-Detected NMR Experiments, UCR Chemical Genomics IGERT Retreat, Warner Springs Ranch, 11/04/2007.

Probing Protein-Ligand Interactions with Ligand-Detected NMR Experiments, UCR Biochemistry Department Seminar, 11/20/2007.

Finding a Needle in a Haystack: Improving the Analytical Methods for Heparin Characterization, IUPUI, Indianapolis, IN 2/20/2008.

Pharmaceutical and Biochemical Microanalysis using Microcoil NMR and Mass Spectrometry, Procter and Gamble, Cincinnati, OH, 2/21/2008.

Finding a Needle in a Haystack: Improving the Analytical Methods for Heparin Characterization, University of Northern Kentucky, Highland Heights, KY, 2/21/2008.

Characterization of Heparin-derived Oligosaccharides, Schering-Plough, Oss, Netherlands, 9/1/2008.

Characterization of Heparin-derived Oligosaccharides, Semmelweis University, Budapest, Hungary, 9/3/2008.

Drivers and Roadmaps for Improving the Undergraduate Chemistry Experience, University of Pittsburgh, PA, 9/25/2008.

Finding a Needle in a Haystack: New Analytical Approaches for Characterizing Glycosaminoglycans, University of Pittsburgh, PA, 9/26/2008.

Metabonomics: A Discovery-based Approach to Unraveling Physiology, University of Redlands, CA, 10/28/2008.

A Twisted Path makes for an Interesting Journey Los Angeles and Ventura County AWIS, Amgen, Thousand Oaks, CA, 1/21/2009.

Introduction to the New ACS Guidelines, San Geronio Local ACS Section, Riverside, CA, 3/17/2009.

Finding a Needle in a Haystack: Improving the Analytical Methods for Heparin and Heparan Sulfate Characterization, University of Arkansas, Fayetteville, AR, 4/20/2009.

A Twisted Path makes for an Interesting Journey, Women in STEM Lecture Series, UCR, 4/21/2009.

New Analytical Methods for Heparin Characterization, Indiana University, Bloomington, IN, 9/22/2009.

Finding a Needle in a Haystack: Improving the Analytical Methods for Heparin Characterization, University of Colorado – Colorado Springs, 10/23/2009.

Finding a Needle in a Haystack: Improving Methods for Heparin Characterization, California Institute of Technology, 11/2/2009.

Finding a Needle in a Haystack: Improving Methods for Heparin Characterization, Baxter Healthcare Corporation, Chicago, IL, 11/6/2009.

Finding a Needle in a Haystack: Improving Methods for Heparin Characterization, Cal Poly Pomona, CA, 12/3/2009.

Finding a Needle in a Haystack: Improving Methods for Heparin Characterization, NIST, 5/6/2010.

Metabonomics: A Discovery-based Approach to Unraveling Physiology, Center for Human Nutrition, UCLA. 5/21/2010.

Finding a Needle in a Haystack: Improving Methods for Heparin Characterization, Chemistry Department, San Diego State University, 9/17/2010.

Applying to and Choosing a Graduate Program: A Roadmap for Success, MARC Scholars, San Diego State University, 9/17/2010.

A Twisted Path Makes for an Interesting Journey, Biomedical Seminar, UCR 10/11/2010.

Finding a Needle in a Haystack: Improving Methods for Heparin Characterization, Chemistry Department, Brigham Young University, Provo, UT, 3/7/2011.

Characterization of Heparin and Its Impurities, Semmelweis University, Department of Pharmaceutical Chemistry, Budapest, Hungary, 5/16/2011.

Finding a Needle in a Haystack – New Analytical Methods for Heparin Characterization, Department of Chemistry and Biochemistry, CSU San Bernardino, CA, 10/20/2011.

Finding a Needle in a Haystack – Improving Methods for Heparin Characterization, Department of Chemistry and Biochemistry, San Jose State University, San Jose, CA 12/06/2011.

Online Separations with NMR Detection, G. Ronzoni Institute for Chemical and Biochemical Research, Milan, Italy, 2/14/2012.

Heparin Characterization by ^1H and ^{15}N NMR Spectroscopy, Semmelweis University College of Pharmacy, Budapest, Hungary, 4/23/2012.

Metabonomics: A Discovery-based Approach to Understand Physiology, Department of Chemistry, Harvey Mudd College, Claremont, CA, 11/06/2012.

Probing Heparin Structure through NMR Measurements of Exchangeable Protons, Department of Chemistry, University of Alberta, Edmonton, Alberta, Canada, 5/14/2014.

Probing Heparin Structure through NMR Measurements of Exchangeable Protons, Department of Pharmaceutical Chemistry, Semmelweis University, Budapest, Hungary 7/8/2014.

Identifying Hydrogen Bonds in Sugars through NMR Measurements of Exchangeable Protons, Department of Chemistry and Biochemistry, CSU Long Beach, CA, 2/25/2015.

Identifying Hydrogen Bonds in Sugars through NMR Measurements of Exchangeable Protons, Department of Chemistry and Biochemistry, University of Arizona, Tucson, AZ, 4/2/2015.

Probing Heparin Structure through NMR Measurements of Exchangeable Protons, Department of Chemistry, Miami University, Oxford, OH 5/5/2016.

Invited Conference Presentations (since 2005)

NMR Diffusion Measurements for Mapping Binding Interactions, 229th ACS National Meeting, San Diego, CA, 3/17/2005.

Application of HPLC-NMR, HPLC-MS and MS/MS to Investigate the Environmental Fate of Fluoroquinolone Antibiotics, COSMOS, Bristol, RI, 8/11/2005.

Standing on the Shoulders of Giants: The Future of Analytical Chemistry Education, Symposium honoring Frank Settle, 230th ACS National Meeting, 8/25/2005.

Tissue Targeted Metabonomics Studies of Cardiac Oxidative Stress, Smart Molecules for Therapy – Celebration of the Semi-Centennial of Semmelweis University, Budapest, Hungary, 10/12/2005.

NMR Diffusion Measurements for Mapping Binding Interactions, Bioanalytical Applications of NMR, Western Regional ACS Meeting, Anaheim, CA, 1/23/2006.

Real-time Analysis with NMR: Promise and Challenges, NSF Workshop on Biomeasurements, Tucson, AZ, 4/21/2006.

Proposed ACS Guidelines for Course and Laboratory Curriculum: A CPT/Audience Dialog, ACS National Meeting, 9/11/2006.

Analytical Sciences Digital Library: What are Web-based Tools for Instruction in Environmental Chemistry, ACS National Meeting, 9/13/2006.

The Impact and Qualities of a Good Mentor: A Case Study, ACS National Meeting, 9/13/2006.

Visualizing Electromigration and Sample Stacking with On-line Capillary Isotachopheresis-NMR, The Pittsburgh Conference on Analytical Chemistry, Chicago, IL, 2/28/2007.

Probing Ligand Binding to Alpha-1 Acid Glycoprotein, Experimental NMR Conference, Daytona Beach, FL, 4/22/2007.

Metabonomics: A Discovery-based Approach to Unraveling Physiology, Beckman Scholars Symposium, Irvine, CA, 7/27/2007.

Standing on the Shoulders of Giants: One Woman's View of the Future of Analytical Chemistry Education, Giddings Award Address, 234th ACS National Meeting, Boston, MA, 8/19/2007.

Maintaining Work-life Balance, New Faculty Conferee Networking Panel Discussion, The Pittsburgh Conference on Analytical Chemistry, New Orleans, LA, 3/3/2008.

Revising the Quantitative Analysis Course: What to Keep? What to Change? The Pittsburgh Conference on Analytical Chemistry, New Orleans, LA 3/6/2008.

Undergraduate Research: The Ultimate Problem-based Learning Experience, The Pittsburgh Conference on Analytical Chemistry, New Orleans, LA 3/6/2008.

The Foundation Laboratory Experience, 20th Biennial Conference on Chemical Education, 7/28/2008

Instructional Approaches to Teaching Bioanalytical Chemistry, 20th Biennial Conference on Chemical Education, 7/29/2008.

Case Studies and Applying the ACS Guidelines to Real Curricular Situations, 236th ACS meeting, Philadelphia, PA, 8/18/2008.

NMR Characterization of Heparin-derived Oligosaccharides, 236th National ACS meeting, Philadelphia, PA, 8/19/2008.

Pharmaceutical and Biochemical Microanalysis using Microcoil NMR, International Conference on LC-NMR and Related Techniques: Challenges in Biological Systems, Jena, Germany, 8/28/2008.

Finding a Needle in a Haystack: Characterization of Heparin-Derived Oligosaccharides, SACNAS Conference, Salt Lake City, UT, 10/10/2008.

Ultrapformance Liquid Chromatography-Mass Spectrometry for Compositional Profiling and Quantification of Heparin and Heparan Sulfate, NOBCCHE Regional Meeting, Cal Poly Pomona, CA, 10/11/2008.

Transitioning from Graduate School – the Postdoc and Beyond, YCC Symposium, 237th ACS National Meeting, Salt Lake City, UT, 3/23/2009.

Finding a Needle in a Haystack: Pharmaceutical and Biochemical Microanalysis using Microcoil NMR, Plenary Lecture, 3rd Iberoamerican NMR Meeting, Angra Dos Reis, Rio Janeiro, Brazil, 5/5/2009.

Adventures in Mixture Analysis by NMR, Keynote Presentation, Chicago Area NMR Discussion Group, Chicago, IL, 11/7/2009.

Finding a Needle in a Haystack: Heparin Microanalysis, LabAutomation 2010, Palm Springs, CA, 1/26/2010.

Undergraduate Research – Developing Scientists and Building Mentors, Pittsburgh Conference on Analytical Chemistry, Orlando, FL, 3/3/2010.

Inquiry-based Learning: What Can We Learn about Teaching from Undergraduate Research? 239th ACS National Meeting, San Francisco, CA, 3/22/2010.

Student Excellence – What does it Mean? 21st Biennial Conference on Chemical Education, Denton, TX, 8/3/2010.

Strategies for Increasing Participation and Fostering Excellence, 21st Biennial Conference on Chemical Education, Denton, TX, 8/3/2010.

Student excellence – Where to next? 21st Biennial Conference on Chemical Education, Denton, TX, 8/3/2010.

Finding a Needle in a Haystack: Improving Analytical Methods for GAG Characterization, 18th Symposium on Glycosaminoglycans, Villa Vigoni, Lake Como, Italy, 9/18/2010.

A Metabolomic Approach to POM Juice Authenticity, POM Research Summit, Beverley Hills, CA, 2/9/2011.

Peer-reviewed, Open Access Electronic Resources for Analytical Science Education, Pittsburgh Conference on Analytical Chemistry, Atlanta, GA, 3/17/2011.

Adventures in Mixture Analysis by NMR. Eli Lilly ACACC Grantees Symposium, Indianapolis, IN, 4/12/2011.

The American Chemical Society Approval Program, Plenary Lecture, European Chemistry and Chemical Engineering Education Network Meeting, Bratislava, Slovakia, 5/20/2011.

Development of Contextual E-Learning Modules for Analytical Chemistry. Gordon Conference on Chemical Education Research and Practice. Davidson, NC, 6/27/2011.

Progress in Heparan Sulfate Characterization, 19th Symposium on Glycosaminoglycans, Villa Vigoni, Lake Como, Italy, 9/24/2011.

Active Learning Materials for Analytical Chemistry, 16^o Nacional de Quimica Analytica, Campos de Jordano, Rio de Janeiro, Brazil, 10/25/2011.

The Analytical Sciences Digital Library: A Unifying Force for Analytical Science Education, Pittsburgh Conference on Analytical Chemistry, Orlando, FL, 3/12/2012.

Lake Nakuru Flamingos: A case study-based active learning project, 243rd ACS National Meeting, San Diego, CA, 3/26/2012.

NMR for the Characterization of Glycosaminoglycans, Proteoglycans Gordon Research Conference, Procter Academy, Andover, NH, 7/10/2012.

Metabolomics and Metabolic Profiling, Partners in Discovery: City of Hope- UC Riverside Biomedical Research Initiative Workshop. City of Hope, Duarte, CA, 9/18/2012.

Glycosaminoglycan Characterization by NMR, Consortium for Functional Glycomics Symposium, Joint Meeting of the Society for Glycobiology and American Society for Matrix Biology, San Diego, CA, 11/11/2012.

Faculty/Staff and Infrastructure Requirements of the ACS Guidelines, 245th ACS National Meeting, New Orleans, LA, 4/8/2013.

Analysis of Heparin Oligosaccharides using Anionic Capillary Isotachopheresis-NMR, 245th ACS National Meeting, New Orleans, LA, 4/9/2013.

Probing Heparin Structure through NMR Measurements of Exchangeable Protons, Euromar 2013, Hersonissos, Crete, Greece, 7/2/2013.

The Analytical Sciences Digital Library – An Online Portal for Teaching and Learning, AACN Symposium, ASIANALYSIS XII, Fukuoka, Japan, 8/22/2013.

Evaluation of Halogenated Pharmaceutical Transformation Products in Wastewater Effluent, 29th Asilomar Conference on Mass Spectrometry, Asilomar, CA, 10/19/2013.

The ACS Approval Process – A Preview of Coming Attractions, Eastern Analytical Symposium, Somerset NJ, 11/20/2013.

New Materials to Simulate Active Learning in the Chemistry Courses, W.E. Harris Teaching Workshop, University of Alberta, Edmonton, Alberta Canada, 5/15/2014.

Metabolite Profiling of the Rat Gut, 250th ACS National Meeting, Boston, MA, 8/18/2015.

ACS Volunteers – Planting the Seeds of a Better Tomorrow, ChemLuminary Awards keynote address, 250th ACS National Meeting, Boston, MA, 8/18/2015.

The Analytical Sciences Digital Library - An Electronic Resource Supporting Problem-based Learning, Pacificchem, Honolulu, HI 12/16/2015.

Environmental Metabolomics and Ecotoxicity Modeling using Earthworms, Pacificchem, Honolulu, HI 12/18/2015.

Southwestern Analytical Professors Conference (SWAP) Understanding Environmental Impacts through Metabolomics, UC-Riverside, CA 1/29/2016.

Analytical Approaches for Environmental Metabolomics and Ecotoxicity Modeling, Pittsburgh Conference on Analytical Chemistry, Atlanta, GA 3/8/2016.

Scaling Math Interventions: Adaptive Learning & Math Interventions at UCR, University Innovation Alliance, University of Central Florida, Orlando, FL 10/19/2016.

FUNDING HISTORY

Pending Grants

NIH R21 “*Delineating Intestinally Absorbed (Bioavailable) Microbial Metabolites by Metabolomic Profiling*”
Period: 07/17– 06/19 **Amount:** \$402,842
P.I. C. Lytle **Co-P.I.** C. Larive

Current Funding

APLU Urban Serving Universities “*Community Engaged Learning in the Inland Empire*”
Period: 01/17– 12/17 **Amount:** \$50,000
P.I. C. Larive

Previous Funding

NSF CHE-1213845 NSF “*Enhancing the NMR Characterization of Amino Sugars*”
Period: 09/12 – 08/16 **Amount:** \$502,855 (includes supplement of \$56,598)
P.I. C.K. Larive

NSF ADVANCE HRD-1107245 “*Moving FORWARD for Women in STEM Fields at UC Riverside and Beyond*”
Period: 07/11 – 06/16 **Amount:** \$599,219
P.I. Y. Moses **Co-P.I.** C.K. Larive, S. Walker, M. Yates

NSF TUES "Development of E-Learning Modules for Analytical Chemistry"

Period: 07/11 – 06/16 **Amount:** \$600,000, \$57,588 to UC-Riverside

P.I. T. Wenzel (Bates) **Co-P.I.** A. Fitch (Loyola-Chicago), C.K. Larive, (UC-Riverside), R.S. Kelly (East Stroudsburg University)

USDA AFRI-2011-04015 "Molecular Dissection of Quiescence Mechanisms Conferred by the Submergence-1 Locus of Rice under Submergence and Drought"

Period: 04/12 – 03/15 **Amount:** \$500,000

P.I. J. Bailey-Serres **Co-P.I.** T. Fukao, C.K. Larive

NSF IOS-1121626 "Comparative Genome-scale Analyses of Submergence and Anaerobic Germination Mechanisms in Rice and Maize"

Period: 09/11 – 08/15 **Amount:** \$699,999

P.I. J. Bailey-Serres **Co-P.I.** T. Fukao, C.K. Larive

POM Wonderful "Molecular Characterization of Pomegranate Juice"

Period: 01/12 – 12/13 **Amount:** \$150,000

P.I. C.K. Larive

USDA NIFA Higher Education Challenge Grant 2011-38411-30552 "Using a Learning Community to Engage Freshman and Sophomores in the Agricultural Sciences: Enhancing Foundational STEM Instruction and Attracting Students to Agricultural Science Careers"

Period: 09/11 – 08/14 **Amount:** \$140,070

P.I. J. Eichler **Co-P.I.** C. K. Larive, M. Yates

NSF CHE-0848976 "Advancing cITP-NMR and Reverse-phase Ion-pairing Separations of Anionic Oligosaccharides"

Period: 07/09 – 06/12 **Amount:** \$420,000

P.I. C.K. Larive

NSF CHE-0927382 "Enhancing REU Programs through a Meeting of Chemistry PIs"

Period: 08/09 – 07/11 **Amount:** \$79,548

P.I. C.K. Larive **Co-P.I.** T. Hanks (Furman University)

Cancer Research Coordinating Committee "Impact of Glucuronic Acid Substitution on the Chemistry of Heparin-Derived Oligosaccharides"

Period: 07/11 – 06/12 **Amount:** \$50,000

P.I. C.K. Larive

Mizutani Foundation for Glycoscience "Advancing NMR Methods for Heparan Sulfate Characterization"

Period: 04/11 – 03/12 **Amount:** \$48,000

P.I. C.K. Larive

NSF DUE-0817595 "Collaborative Research: Development of Contextual E-Learning Modules for Analytical Chemistry"

Period: 09/08 – 08/11 **Amount:** \$100,722 to UCR with an additional collaborative award

P.I. C.K. Larive \$99,278 to Tom Wenzel, Bates College

USDA/CSREES "Elucidation of the Molecular Antagonism between Submergence1 Ethylene Response Factors during Submergence and Anaerobic Germination in Rice"

Period: 09/08 – 08/11 **Amount:** \$350,000

P.I. J. Bailey-Serres **Co-P.I.** C.K. Larive, P. Ronald (UC-Davis)

Pom Wonderful "Molecular Fingerprinting of Pomegranate Juice – Pilot Project"

Period: 05/010 – 03/11 **Amount:** \$56,719
P.I. C.K. Larive

Baxter Healthcare Corporation *“Heparin Characterization”*
Period: 07/09 – 06/10 **Amount:** \$45,000
P.I. C.K. Larive

NSF CHE-0742001 *“Purchase of a GC-TOF Instrument for Cyberinfrastructure at UC Riverside”*
Period: 02/08 – 01/11 **Amount:** \$315,735
P.I. E. Chronister **Co-P.I.** C.K. Larive

NSF DUE-0531941 *“Collaborative Project: Assessing the User-base and Expanding the Usability/Reach of the Analytical Sciences Digital Library through Developmental Workshops”*
Period: 08/01/04 - 09/1/10 **Amount:** \$585,115, Supplement \$34,900
P.I. C.K. Larive **Co-P.I.** T. Kuwana, S. E. Gauch, A. Scheeline

ACS PRF *“Determination of Ligand Binding Epitopes using NMR Diffusion Measurements”*
Period: 05/01/05 – 08/31/09 **Amount:** \$80,000
P.I. C.K. Larive

NSF CHE-0616811 *“Development and Application of On-line cITP-NMR for Analysis of Mass-Limited Samples”*
Period: 07/06 – 06/09 **Amount:** \$449,583
P.I. C.K. Larive

NSF CHE-0552493 *“REU Site: Interdisciplinary Research Experience in Bioanalytical Science”*
Period: 03/2006 - 02/2009 **Amount:** \$224,187
P.I. C.K. Larive **Co-P.I.** A. Mulchandani

Cancer Research Coordinating Committee *“Microcoil NMR Experiments for the Identification of Oligosaccharide Binding Motifs”*
Period: 07/06 – 06/07 **Amount:** \$45,000
P.I. C.K. Larive

NSF CHE-0535435 *“Development and Application of Improved Methods for Coupling NMR and Capillary Isotachopheresis”*
Period: 09/01/02 – 8/31/05 **Amount:** \$300,000, **Supplement:** \$22,482
P.I. C.K. Larive

NSF CHE-0133237 *“Fundamental Studies of In Situ Biosurfactant Production and the Attendant Impact on Metal Interactions with Soil Surfaces”*
Period: 04/01/02 – 03/31/05 **Amount:** \$18,211 (subcontract to U. of Kansas)
P.I. R. Maier (U. of Arizona) **Co-P.I.** J. Pemberton (U. of Arizona), C.K. Larive

NSF CHE-0320648 *“Acquisition of Cryoprobe/Cryoplatfor for 500 MHz NMR”*
Period: 08/01/03 - 07/31/06 **Amount:** \$186,432
P.I. D. VanderVelde **Co-P.I.** C.K. Larive

NSF CHE-0244041 *“Summer Research Experience for Undergraduates at the University of Kansas”*
Period: 03/01/03 - 02/28/06 **Amount:** \$188,710
P.I. C. K. Larive

NSF NSDL *“Analytical Sciences Digital Library”*

Period: 9/01-8/03 **Amount:** \$485,066
P.I. T. Kuwana **Co-P.I.** S. Chalk, R.C. Dorey, C.K. Larive

EPA "The Fate and Effects of Fluoroquinolone Antibacterial Agents in Aquatic Systems"
Period: 10/01 - 09/04 **Amount:** \$567,259
P.I. D. Graham **Co-P.I.** C.K. Larive, M. Lydy (Iowa State)

NRC "COBASE Project Development and Initiation Fellowship"
Period: 6/01 – 12/03 **Amount:** \$8200
P.I. C.K. Larive **Co-P.I.** B. Noszal (Semmelweis University, Budapest)

KU RDF "The Fate and Effects of Fluoroquinolone Antibacterial Agents in Aquatic Systems"
Period: 1/01 - 1/02 **Amount:** \$77,160
P.I. C.K. Larive **Co-P.I.** D. Graham, F. deNoyelles

NSF "A 600 MHz NMR Spectrometer for the University of Kansas"
Period: 03/01/00 - 02/28/01 **Amount:** \$313,990
P.I. J. Urbauer **Co-P.I.** C. Larive, M. Richter, T. Siahaan, T. Squire

K*STAR/NSF "Instrumentation at the Chemical-Biology Interface: Acquisition of a 600 MHz Spectrometer"
Period: 02/01/00 – 1/31/01 **Amount:** \$250,000
P.I. R. Weaver **Co-P.I.** C. Larive, K. Bowman-James, P. Kelly

NSF MRI "Upgrade of a 500 MHz Nuclear Magnetic Resonance Spectrometer"
Period: 09/01/99 - 08/31/02 **Amount:** \$197,176
P.I. C. K. Larive **Co-P.I.** D. Benson, A. Borovik, P. Hanson, M. Doughty, T. Siahaan, D. VanderVelde

NSF "Research Experiences for Undergraduates in Chemistry at the University of Kansas"
Period: 3/00-2/02 **Amount:** \$58,990
P.I.: K. B. Schowen **Co-P.I.** C.K. Larive

EPA-EPSCoR "The Role of Natural Organic Matter in the Transport, Disposition and Binding of Atrazine"
Period: 7/99-6//01 **Amount:** \$169,613
P.I. C. K. Larive **Co-P.I.** A. Bhandari, K. Xia, W. R. Carper

NSF CCLI "Clarifying Concepts of Concentration, Equilibrium and Reaction Rate in Introductory Chemistry Using Visible Spectroscopy"
Period: 5/99-5/01 **Amount:** \$62,581
P.I. J. Heppert **Co-P.I.** C.K. Larive, K. Ratzlaff, J. Robinson

Dupont Aid to Education Grant "Mixture Analysis with PFG NMR"
Period: 1/99 -7/00 **Amount:** \$25,800
P.I. C.K. Larive

NSF DUE "Problem-Oriented Surface Analysis in the Junior-Senior Laboratory"
Period: 4/98 - 5/00 **Amount:** \$35,150
P. I. R. Dunn **Co-P.I.** G. Wilson, C. Lunte, C. Larive

William and Flora Hewlett Foundation "A Paradigm Shift in the Laboratory Experience"
Period: 5/98 - 4/00 **Amount:** \$150,000
P. I. J. Heppert **Co-P.I.** C. Larive, B. Laird, R. Carlson

NSF Career *"NMR Spectroscopic Investigation of Peptide Aggregation"*

Period: 4/95-3/98 **Amount:** \$195,000

P.I. C.K. Larive

NSF *"Characterization of Metal Ion Complexation and Aggregation of Humic Substances"*

Period: 9/95-8/98 **Amount:** \$192,001, Supplement \$29,477

P.I. C.K. Larive **Co-P.I.** W. Robert Carper, Wichita State University

NSF *"Summer Research for College Teachers with Emphasis in Bioanalytical and Environmental Analytical Chemistry"*

Period: 5/94-4/99 **Amount:** \$171,000, Supplement \$11,072, Creativity Extension \$130,120

P.I. T. Kuwana **Co-P.I.** C.K. Larive

NSF-ARI *"Acquisition of 400 MHz Nuclear Magnetic Resonance Spectrometer"*

Period: 10-1-95 to 9-30-98 **Amount:** \$221,905

P.I. D. Vander Velde **Co-P.I.** C.K. Larive

Eli Lilly *"New Faculty Grant in Analytical Chemistry"*

Period: 10/96-10/97 **Amount:** \$10,000

P.I. C.K. Larive

Monsanto Foundation *"Minority Fellowship for the Support of Sheila Rogers"*

Period: 9/96-9/99 **Amount:** \$100,000

P.I. C.K. Larive

Dow Corning *"Preliminary Diffusion Experiments on Silica Compounds"*

Period: 11/96-6/97 **Amount:** \$1,000

P.I. C.K. Larive

University of Kansas New Faculty Research Award *"Measurement of Protein Aggregation Equilibria using Nuclear Magnetic Resonance Spectroscopy"*

Period: 7/92-7/93 **Amount:** \$5,000

P.I. C.K. Larive

University of Kansas Center for Bioanalytical Research *"Metabolic Profiling using NMR Spectroscopy Coupled with Microdialysis"*

Period: 8/93-8/94 **Amount:** \$18,000

P.I. C.K. Larive

Petroleum Research Fund *"Probing the Relationship Between Structure, Aggregation and Conformation in Model Peptides"*

Period: 9/94-8/96 **Amount:** \$20,000

P.I. C.K. Larive

Sigma Kappa Foundation *"Characterization of the Metal Ion Binding Chemistry of β -Amyloid Peptides"*

Period: 11/94-10/95 **Amount:** \$7,500

P.I. C.K. Larive

UNDERGRADUATE RESEARCH STUDENTS MENTORED: I have mentored 47 undergraduate researchers of whom 25 were female, and 12 were members of ethnic groups traditionally underrepresented in science. The names of my undergraduate coauthors are underlined in the list of publications.

GRADUATE STUDENTS MENTORED:

University of California – Riverside: Current graduate students: Meredith Dinges, Andrew Green, Corey Griffith, Melissa Morgan

Graduates – University of California – Riverside

- Ph.D. 2015 Consuelo Beecher "Molecular Level Characterization of Heparin Structure"
Ph.D. 2013 Daryl Bulloch "Analysis and Characterization of Halogenated Transformation Products of Pharmaceuticals and Personal Care Products in Wastewater Effluent"
Ph.D. 2013 Gregory Barding "Metabolomics of Complex Biological Systems to Uncover Molecular Mechanisms in Rice and Other Organisms"
Ph.D. 2013 Derek Langeslay "Advancing Analytical Methods for Characterization of Anionic Carbohydrate Biopolymers"
Ph.D. 2012 Christopher Jones "Advancement of Separation and Characterization Techniques for Ionic Analytes"
Ph.D. 2012 Kayla Kaiser "Metabolic Profiling of Primary and Secondary Biosynthetic Pathways in Angiosperms: Comparative Metabonomics and Applications of Hyphenated LC-NMR and LC-MS"
Ph.D. 2011 John Limtiaco "Development of NMR Methods for the Characterization of Heparin and its Impurities"
Ph.D. 2010 Jennifer Cruz "Characterizing Ligand-Protein Interactions by Ligand-Detected Nuclear Magnetic Resonance (NMR) Methods"
Ph.D. 2009 Stacie Eldridge "Development of Analytical Methods for Trace Impurity Analysis and Structure Determination of Heparin/Heparan Sulfate-Derived Oligosaccharides"
M.S. 2007, Fang (Kasie) Fang "Application of ¹H NMR and LC-TOF/MS for Metabonomic Studies of Plasma and Tissue"

Graduates - University of Kansas

- Ph.D. 2008 (honors) Kristin Price (joint with Craig Lunte) "Tissue-Targeted Metabonomics: Metabolic Profiling by Microdialysis and NMR Spectroscopy"
Ph.D. 2007 (honors), Albert Korir "Development and Application of Microanalysis NMR Methods"
Ph.D. 2006 (honors), Bridget Becker "Development and Application of NMR Methods for Drug Discovery and Development"
Ph.D. 2006, Valentino Almeida "Implementation and Development of Microcoil NMR Coupled With Microscale Separation Techniques for Trace Impurity Analysis"
Ph.D. 2004, Laurie Cardoza Harned, "Application of HPLC-NMR, HPLC-MS and MS/MS for the Investigation of the Environmental Fate of the Fluoroquinolone Antibiotics"
Ph.D. 2004 (honors), Laura Lucas, "Development and Application of State-of-the-art Nuclear Magnetic Resonance (NMR) Spectroscopic Methodologies to Analytical Challenges Relevant to the Drug Development Process"
Ph.D. 2001, William Otto, "Investigation of the Metal Complexation and Intermolecular Interactions of Humic Substances by NMR Spectroscopy"
Ph.D. 2001, Ben Cutak, "Application and Improvement of Environmental Methods of Analysis"
Ph.D. 2000, Tiffany Derrick, "Critical Analysis of Affinity NMR for the Measurement of Protein/Ligand Binding"
M.S. 2000, Farhana Afroz, "A Study of the Aggregation Behavior of the β (12-28) Peptide with Pulsed-field Gradient (PFG)-NMR and Other Analytical Methods"
Ph.D. 1999, Ann Dixon, "The Investigation of Structure and Binding of Aquatic Humic Substances"
Ph.D. 1999, Sheila Rogers, "Development of NMR Methods for Peptide Analysis"
Ph.D. 1998, Dimuthu Jayawickrama, "Examination of Molecular Association using NMR Spectroscopy"
Ph.D. 1998, Shawn Mansfield, "Investigation of Peptide Aggregation using Several Analytical Methodologies"
M.S. 1998 Nalin Hathurusinghe "Analytical Methodologies for the Study of Peptide Aggregation"
M.S. 1994, Shauna Zink, "Spectroscopic Conformational Analysis of β (1-28) and β (12-28) Peptides"

PROFESSIONAL ORGANIZATIONS AND ACTIVITIES

American Chemical Society

AAAS
SACNAS (lifetime member)

SERVICE

Departmental (UC-Riverside)

Member, Search Committee for endowed professors, 2017
Member, Search Committee for Undergraduate Student Affairs Officer, 2012
Member, Search Committee for Chemistry Department MSO, 2011
Chair, Search Committee for an Assistant Professor in Bioanalytical Chemistry, 2010 - 2011
Chair, Search Committee for a Lecturer with Potential Security of Employment, 2010
Organizing Committee for the Chemistry Graduate Program 50th Anniversary, 2010
Undergraduate Adviser, 2009 - 2011
Chemistry Club Adviser, 2009 - 2011
Director, Analytical Chemistry Instrumentation Facility, 2006 - 2010
Chair, Graduate Recruiting Committee, 2005 - 2009
Chemistry Graduate Student Advisor, 2008 - 2009
Department of Chemistry Executive Committee, 2006 - 2011
Bioanalytical Science REU Program Director, 2006 - 2008
Search Committee for an Assistant Professor in Analytical Chemistry, 2005 - 2006
Graduate recruiting committee member, 2005
Search Committee for an Assistant Professor in Analytical Chemistry, 2004 - 2005.

University (UC-Riverside)

Member, Search Committee for a Professor (open rank) in Astrobiology
Chair, Search Committee for the Associate Vice-Chancellor for Diversity, Inclusion, and Equity, 2015 – 2016
Member, STEM Center Design Committee, 2016
UC - Riverside Representative to the UC System-wide Advisory Committee on the Status of Women, 2010 -2015
Chair Hellman Fellows Selection Committee, 2011, 2013, 2014
Search Committee for Vice-Chancellor for Business Administration, 2013 - 2014
Chair, Search Committee for the Associate Vice-Provost for Faculty Success, 2012 - 2013
CNAS Science Lecture Series Advisory Committee, 2011
Search Committee for Athletic Director, 2011
Strategic Plan Implementation Advisory Committee, 2011
Campus Strategic Planning, Academic Excellence Committee, 2009 - 2010
Genomics Building Policy Committee, 2009 - 2011
Graduate Council, 2009 - 2010
CNAS Research Infrastructure Strategic Planning Committee, 2009
Steering Committee for a Leadership Institute for Undergraduate Women in STEM, 2008 - 2010
AGEP Advisory Committee, 2008 - 2010
UC - Riverside Diversity Advisory Council, 2008 - 2010
Search Committee for the Dean of the Graduate Division, 2008
Campus Research Facilities and Instrumentation Advisory Board, 2007 - 2010
GradSIS Steering Committee, 2007 - 2010
Search Committee Biochemistry Structural Biology, 2007 - 2008

Professional

ACS Division of Analytical Chemistry, Past Chair (2014), Chair (2013), Program Chair (2012), Chair-elect (2011)
ACS Committee on Professional Training, 2005 – 2006, 2012 – 2015, vice-chair: 2007-2008, chair: 2009-2012
Chair, ACS Task Force on International Chemistry Education, 2014
Cal State LA MORE Board of External Advisors, 2011 - present
ACS Graduate Education Advisory Board, 2004 - 2011

Chemistry REU Leadership Group, 2006 - 2010
ACS Division of Analytical Chemistry Web Committee, 2007 - 2010
Chair, ACS Division of Analytical Chemistry Education Committee, 2003 - 2007
Contributing Editor, McGraw-Hill Yearbook of Science and Technology, 2002 - 2006
Local Section ACS President, 2003
ACS Division of Analytical Chemistry Education Committee, 1997 - 2002
Co-Program Chair, Midwest Regional ACS meeting, Lawrence, KS Oct 23-25, 2002
IUPAC Young Observer, 2001
Society for Applied Spectroscopy Nominating Committee, 2000
ACS Local Section Carnival of Chemistry Volunteer, 1997-2000
President, Kansas City Section of the Society for Applied Spectroscopy, 1995 - 96, 1998 - 99
Secretary Lawrence Section of the American Chemical Society, 1998 - 99
FMC Lawrence Plant, Community Advisory Panel, 1996 - 98
Registration Chair, 1996 FACSS Meeting, Kansas City, MO
Secretary, Kansas City Section of the Society for Applied Spectroscopy, 1994 - 95

External Reviews, Study Panels and Workshops

External Review of the Department of Biochemistry, University of Miami, 2016
European Research Council Starter Grant Panel, Brussels, Belgium 2015
NIH P01 Panel, 2014
External Review of the Department of Chemistry and Biochemistry, CSU - Los Angeles, 2014
External Review of the Department of Chemistry, Oklahoma State University, 2011
Committee of Visitor Review NSF Chemistry, 2010
External Review of the Department of Chemistry and Biochemistry, CSU – Fullerton, 2009
NIH Natural Products Special Study Section, 2008
NSF Engineering Separations Panel, 2007
External Review of the SUNY Binghamton Chemistry Department, 2006
NSF MRI panel, 2006
NSF Workshop on Biomeasurements, April 21, 2006, Tucson, AZ
NIH EBT study section, Ad hoc reviewer, 2006
NIH Natural Products Special Study Section, 2005
Undergraduate Chemistry Curriculum Review Committee, University of California – Merced, 2005
Reviewer for Louisiana State Board of Reagents Research and Development Program, 2004
NSF EMSI site review, Ohio State, 2003
NIH Biochemistry study section, Ad hoc reviewer, 2002
EPSRC review panel: Chairs of Analytical Chemistry in Great Britain, 2001
NSF International Postdoctoral Research Fellowship program review panel, 2001
NSF POWRE panel, Washington, DC, 2000
NSF Workshop: Instrumentation for Environmental Science, 2000
NSF Analytical Chemistry CAREER Program Panel, 1995, 1999
NSF RSEC program review panel, Anaheim, CA, 1999
NSF Workshop: Analytical Instrumentation for the Next Millennium, Orlando, FL, 1999
NSF Environmental Geochemistry Biogeochemistry program review panel, 1998
NSF sponsored Curricular Development Workshops in Analytical Sciences, October 28-30, 1996, Leesburg, VA and March 13-15 1997, Atlanta, GA

Symposia and Meetings Organized

"Promoting Engaged Student Learning through the ACS Guidelines", 250th ACS National Meeting, Boston, August 2015, Organized jointly with Thomas Wenzel, Bates College
"Tips and Tools for Incorporating Active Learning into Analytical Chemistry Courses" Pittcon Networking Session, March 2015, New Orleans, Organized jointly with Anna Cavinato, Eastern Oregon University
"An International View on Chemistry Education" 248th ACS National Meeting in San Francisco, 9/10-14/2014. Organized jointly with Edgar Arriaga, University of Minnesota.
"Active-learning in Analytical Chemistry for Faculty at HBCU and Hispanic-serving Institutions", Organized jointly with Tom Wenzel and other ASDL principals, June 2014, Spelman College, Atlanta, GA

"Heparin Synthesis, Analysis and Biological Functions" 245th ACS National Meeting in New Orleans, LA 4/8-9/2013. Organized jointly with Jian Liu, UNC – Chapel Hill and Robert Linhardt, RPI

ACS Division of Analytical Chemistry program chair for 2012. Responsible for programming at the Spring (San Diego) and Fall (Philadelphia) National ACS meetings and for the Division's programming at the Pittsburgh Conference on Analytical Chemistry (Orlando).

"Excellence in Undergraduate Chemistry Education: A Global Perspective" Presidential Event, 240th ACS meeting, Boston, MA 8/23/2010

"Celebration of the 50th anniversary of the UCR Chemistry Graduate Program" UC-Riverside, 6/18/2010

"Innovative Approaches to Analytical Science Education" co-organized with Carol Korzeniewski, Pittsburgh Conference on Analytical Chemistry, Feb 28 – Mar 5, 2010, Orlando, FL

"NSF Chemistry REU Pls' Meeting" co-organized with Prof. Tim Hanks, San Antonio, TX July 8-10, 2009

"Increasing Participation of Hispanic Undergraduates in Chemistry" co-organized with Prof. Carlos Gutierrez, Washington, DC November 14-16, 2008

"Increasing Participation of Native American Undergraduates in Chemistry" co-organized with Prof. Ron Estler, Fort Lewis College, Omaha, NE, Sept. 12-14, 2008

"Southern California Undergraduate Research Conference in Chemistry and Biochemistry" UCR. Apr. 19, 2008.

"Reimagining Quant" Co-organized with Peter Griffiths, University of Idaho, The Pittsburgh Conference on Analytical Chemistry, New Orleans, LA 3/6/2008.

Southern California Users of Magnets (SCUM) meeting Co-organized with Len Mueller and Dan Borchardt, UC-Riverside, Dec. 9, 2006.

Southwest Analytical Professors (SWAP) meeting, UC-Riverside, Feb. 10-11, 2006

"Applications of Bioanalytical NMR" Western Regional ACS Meeting, Anaheim, CA, Jan 23, 2006

"Next Generation of Analytical Chemical Professionals" 229th ACS National Meeting, San Diego, CA March 14, 2005.

"Opportunities for Analytical Chemists in the Pharmaceutical Industry" 228th ACS National Meeting, Philadelphia, PA, August 22-26, 2004

"Graduate Student Session" SMASH NMR Conference, Verona, Italy, Sept. 17, 2003

"Midwest Magnetic Resonance Symposium" Midwest Regional ACS Meeting, Lawrence, KS Oct. 25, 2002

"Career Opportunities in Environmental Analytical Chemistry" ACS National Meeting, Orlando, FL, April 9, 2002

"Environmental Contaminants and Their Degradation Products" Pittsburgh Conference on Analytical Chemistry, New Orleans, LA, March 21, 2002

"Advances in NMR Spectroscopy for Characterizing Pharmaceuticals" Pittsburgh Conference on Analytical Chemistry, New Orleans, LA, March 18, 2002

"Analytical Chemistry: A Broad Spectrum of Career Opportunities", ACS National Meeting in Washington D.C., August 20-24, 2000.

"Rediscovering Research - The Impact of Research on Undergraduate Education" with Kelsey Cook, University of Tennessee at the National ACS meeting in Boston, MA, Aug. 23-28, 1998.

Analytical Chemistry Sessions, 1997 Midwest Regional ACS meeting, Tan-Tar-A Resort, Osage Beach, MO, Oct. 29-Nov.1, 1997.

"Nuclear Magnetic Resonance Diffusion Measurements" 1996 FACSS, Kansas City, MO.

"Peptides/Proteins Characterization with NMR Spectroscopy", 1996 FACSS, Kansas City, MO.

"Non-invasive Bioanalysis with NMR Spectroscopy", 1994 FACSS Meeting, St. Louis, MO.