C. Eugene Bennett Department of Chemistry, West Virginia University

Education:

B.S. in chemistry University of Maryland, College Park, MD,

Ph.D. in chemistry University of North Carolina, Chapel Hill, NC, Research advisor: James W. Jorgenson, Dissertation: "Development of a Two-Dimensional Comprehensive Microcolumn Liquid Chromatography System for the Separation of Nanoliter Volumes of Biological Amines".

Professional Experience

08/14-present Professor of Chemistry, West Virginia University
5/08-08/14 Associate Professor of Chemistry, West Virginia University
8/02-4/08 Assistant Professor of Chemistry, West Virginia University
1/99-8/02 Assistant Professor, Department of Chemistry, Kent State University
3/96-12/98 Postdoctoral, University of Kansas, Dept. of Pharmaceutical Chemistry (preceptor Prof. Susan M. Lunte)
6/85-12/90 Research Technician. NIST, Electroanalytical Research Group

Awards and Honors

2021 Benedum Distinguished Scholar Award recipient, Physical Sciences and Technology
2020-2023 Board of Directors, Society for Microscale Separations and Bioanalysis
2018-2022 Standing Member, NIH Instrumentation and Systems Development Study Section
2016-present International Advisory Board, Analytical Bioanalytical Chemistry
2015-2017 Chair, American Chemical Society, Subdivision of Chromatography and Separation Chemistry
2014-present Full Member, Society of Toxicology
2012-2015 Chair Elect, American Chemical Society, Subdivision of Chromatography and Separation Chemistry
2007-2012 Elected Member, Executive Board, American Chemical Society -SCSC
2001-2006 National Science Foundation Early Career Development Award
1996-1998 National Research Service Award, University of Kansas

Research Techniques and Skills

Bioanalytical Separations: biological therapeutics, biomarkers, biomolecular affinity, DNA, enzyme function, glycan sequencing, proteins, nanoparticle interactions.

Microscale Separations: capillary electrophoresis (free zone, gel, affinity, MEKC), capillary electrophoresis-mass spectrometry, capillary column liquid chromatography, integrated capillary column-electrochemical systems, microfluidics with on-board fluid steering, smart nanomaterials for patterning.

External Support 2010-present, Holland PI unless otherwise noted

NIH R01GM140560, "Enabling Technology to Screen and Quantify Sialylated Structures for Activity Against Viral Enzymes and Receptors" 01/21-12/24

NSF, CHE-2004021, "CAS Acoustically Driven, Voltage-Free Spray Interface to Couple Capillary Electrophoresis and Mass Spectrometry, 08/15/20-08/16/23

Pfizer, "High Resolution and Reproducible Separation and Quantitation of Plasmid Topoisomers by Capillary Gel Electrophoresis with Laser Induced Fluorescence" 01/20-06/21

NIH P41GM128577, Resource for Native MS-Guided Structural Biology Ohio State University, Vicki Wysocki, PI, 07/01/18-06/30/22, Holland is a member of the separation track team

NIH R01GM114330, "Phospholipid Microscale Glycan Sequencing: Linking Structure to Antibody Function" 08/15-07/21

NSF DMR1559880 "REU Site: NanoSAFE Multifunctional Nanomaterials" 04/16-12/19

NSF CHE1506984, "Multifunctional Nanophases for Tunable Separations and Integrated Processing", 08/15-12/19

NIH, R21ES023575-01, "Rapid Steroid Profiling of Individual Model Fish: Relating Exposure to Disease" 12/13-11/16

NSF CHE1212537, "Reversible Nanogels for Chemical Separations", 08/12-08/16

NSF DMR-1039987, "MRI: Acquisition of a Pulsed Laser Deposition System", D. Lederman PI,10/10-09/13, Holland Co-I

NSF CHE0749764, "Phospholipids for Flow Steering and Analyte Selection in Capillary Separations", 06/08-05/12

NSF ECCS-0901303, "Motor Protein Based Transport Mechanisms for Nano-Scale Devices", P. Famouri, PI, 08/09-07/12

NSF RII, WVNano seed program, "Environmental Sensing Using a Broadly Selective Aptamer", 08/10-08/12

Publications and Patents 2010-present, (*corresponding author)

71. **L.A. Holland***, Capillary Electrophoresis, in Comprehensive Glycoscience 2nd Edition, Barchi, J., Ed.; Elsevier, ***in press***. ISBN: 9780128194751
70. Crihfield, C.L., **L.A. Holland***, Protein Sieving with Capillary Nanogel Electrophoresis, *Analytical Chemistry*, **2021**, 93, p. 1537–1543. http://dx.doi.org/10.1021/acs.analchem.0c03865
69. Veltri, L.M. and **L.A. Holland***, Microfluidics for Personalized Reactions to Demonstrate Stoichiometry. *Journal of Chemical Education*. **2020**, 97, p. 1035-1040. https://pubs.acs.org/doi/abs/10.1021/acs.jchemed.9b00544
68. Crihfield, C.L., C.J. Kristof, L.M. Veltri, C.A. Wilson, W.M. Penny, and **L.A. Holland***, Semi-permanent Cationic Coating for Protein Separations. *Data in Brief*, **2020**. 29: p. 105123.
67. Kristoff, CJ, Li, C. Li, P. **L.A. Holland***, Vibrating Sharp-Edge Spray Ionization Interface for Capillary Electrophoresis and Mass Spectrometry, *Analytical Chemistry*. **2020**. https://onlinelibrary.wiley.com/doi/pdf/10.1002/elps.202000121
66. Bwanali, L., C.L. Crihfield, E.O. Newton, V. Zeger, S. Gattu, and **L.A. Holland***, Quantification of the α2-6 sialic acid linkage in branched N-glycan structures with capillary nanogel electrophoresis. *Analytical Chemistry.* **2020**. 92(1): p. 1518-1524., https://doi.org/10.1021/acs.analchem.9b04787
65. Kristoff, C.J., L. Bwanali, L.M. Veltri, G.P. Gautam, P.K. Rutto, E.O. Newton, and **L.A. Holland***, Challenging Bioanalyses with Capillary Electrophoresis *Analytical Chemistry*, **2020**. 92(1): p. 49-66, https://doi.org/10.1021/acs.analchem.9b04718
64. Peng Li, Xiaojun Li, Stephen J. Valentine and **Lisa Holland**, US Provisional Patent Application #62/872,702, Devices and processes for mass spectrometry utilizing vibrating sharp-edge spray ionization, filed July 11, 2019.
63. Crihfield, C.L., C.J. Kristoff, L.M. Veltri, W.M. Penny, and **L.A. Holland***, Semi-permanent cationic coating for protein separations. *Journal of Chromatography A*, **2019**. 1607(6): p. 460397.
62. Lu, G., and **L.A. Holland***, Profiling the N-Glycan Composition of IgG with Lectins and Capillary Nanogel Electrophoresis. *Analytical Chemistry*. **2019.** 91(2): p. 1375–1383.
61. **Holland, L.*** and W. Zhong, Analytical Developments in Advancing Safety in Nanotechnology. *Analytical and Bioanalytical Chemistry*, 410(24): 6037-6039 **2018**.
60. **Holland, L.A.***, J.S. Carver, L.M. Veltri, R.J. Henderson, and K.D. Quedado, Enhancing Research for Undergraduates through a Nanotechnology Training Program That Utilizes Analytical and Bioanalytical Tools. *Analytical and Bioanalytical Chemistry*, 410(24): 6041-6050 **2018**.
59. **Holland, L.A.**, US non-Provisional Patent Application #62655859, Microfluidic Device and Uses of Teaching Scientific Principles, filed April 11, 2018
58. **Holland, L.A.** and S. Gattu, US Non-Provisional Patent Application, 15/911624 "Phospholipid Nanogel for Enzyme Stabilization". 2018, West Virginia University.
57. Hernandez, P. R.*, P.D. Hopkins, K. Masters, **L. Holland**, B.M. Mei, M. Richards-Babb, K. Quedado, N.J. Shook, E.L. Dolan, Student Integration into STEM Careers and Culture: A Longitudinal Examination of Summer Faculty Mentors and Project Ownership, *CBE—Life Sciences Education*, 17(3): Article 50: 1-14 **2018**.
56. Gattu, S, C.L. Crihfield, G. Lu, Bwanali, L., L.M. Veltri, **L.A. Holland***, Enzyme Substrate Analysis with Capillary Electrophoresis, *Methods*, 146: 93-106, **2018**.
55. Lu G., C.L. Crihfield, S. Gattu, L.M. Veltri, **L.A. Holland***, Capillary electrophoresis separations of glycans, *Chemical Reviews*, 118: 7867-7885 **2018**.
54. Davis, T.A., S.M. Patberg, A. Stefaniak, L. Sargent, and **L.A. Holland***, Affinity Capillary Electrophoresis Method to Assess Carboxylation of Multi-walled Carbon Nanotubes. *Analytica Chimica Acta*, 1027: 149-157 **2018**.
53. T.A. Davis and **L.A. Holland***, Peptide Probe for Multi-walled Carbon Nanotubes: Electrophoretic Assessment of the Binding Interface and Evaluation of Surface Functionalization. *ACS Applied Materials and Interfaces*, 10: 11311-11318 **2018**.
52. **L.A. Holland***, S. Gattu, C.L. Crihfield, and L. Bwanali, Capillary Electrophoresis with Stationary Nanogel Zones of Galactosidase and *Erythrina Cristagalli* Lectin for the Determination of β(1-3)-Linked Galactose in Glycans. *Journal of Chromatography A*, 1523: 90-96 **2017**.
51. S. Gattu, C.L. Crihfield, **L.A. Holland***, "Microscale Measurements of Michaelis-Menten Constants of Neuraminidase with Nanogel Capillary Electrophoresis for the Determination of Sialic Acid Linkage" *Analytical Chemistry*, 89(1): 929-936, **2017**.
50. B.A. Bachert; S.J. Choi; A.K. Snyder; R.V. Rio; B.C. Durney; **L.A. Holland**; K. Amemiya; S.L. Welkos; J.A. Bozue; C.K. Cote; R. Berisio; S. Lukomski*, A Unique Set of the Burkholderia Collagen-like Proteins Provides Insight into Pathogenesis, Genome Evolution and Niche Adaptation, and Infection Detection *PLOS ONE*, 10(9): e0137578. doi:10.1371/journal.pone.0137578
49. V.T. Nyakubaya, B.C. Durney, M.C. Ellington, A.D. Kantes, P.A. Reed, S.E. Walter, J.R. Stueckle, **L.A. Holland***, Rapid Capillary Electrophoresis Separations for the Determination of Circulating Steroids in 5 Microliters of Plasma from Individual Female Zebrafish Using Stacking to Achieve Nanomolar Detection Limits with UV-visible Absorbance Detection, *Analytical Bioanalytical Chemistry*, 407(23):6985-93, **2015.**
48. B.C. Durney, C.L. Crihfield, **L.A. Holland***, Capillary Electrophoresis Applied to DNA and RNA: Determining and Harnessing Sequence, Modifications, or Structure to Advance Bioanalyses (2009-2014), *Analytical and Bioanalytical Chemistry*, 407(23):6923-38, **2015**

47. B.C. Durney, B.A. Bachert, H.S. Sloane, S. Lukomski, J.P. Landers, **L.A. Holland***, Reversible Phospholipid Nanogels for DNA Fragment Size Determinations up to 1,500 Base Pairs and Integrated Sample Stacking, *Analytica Chimica Acta*, 880(0):136-44, **2015.**
46. T.A. Davis, S.L. Athey, M.L. Vandevender, C.L. Crihfield, C.C. Kolanko, S. Shao, M.C. Ellington, J.K. Dicks, J.S. Carver, **L.A. Holland*** Electrolysis of Water in the Secondary Science Laboratory with Inexpensive Hand-Held Microfluidics, *Journal of Chemical Education*, *92*(1): 116–119, **2015.**
45. R.M. Williams, C.L. Crihfield, S. Gattu, **L.A. Holland**, L.J. Sooter*, *In vitro* selection of a single-stranded DNA molecular recognition element against atrazine, *International Journal of Molecular Sciences* 15(8):14332-47, **2014**.
44. K. Tuntevski, B.C. Durney, A.K. Snyder, P.R. LaSala, A.P. Nayak, B.J. Green, D.H. Beezhold, R.V.M. Rio, **L.A. Holland**, S. Lukomski*, Aspergillus collagen-like (acl) genes: identification, sequence polymorphism and assessment for PCR-based pathogen detection, *Applied and Environmental Microbiology*, 79(24), 7882-95, **2013**.
43. S. Boulanos, T.A. Davis, J.A. Yang, S.E. Lohse, A. Alkilany, **L.A. Holland**, C.J. Murphy*, Nanoparticle-protein interaction: thermodynamic and kinetic study of adsorption of bovine serum albumin to gold nanoparticle surface, *Langmuir*, 29*(*48), 14984–14996, **2013**.
42. B. Ramakrishnan, A.M. Moncrief, T.A.Davis, **L.A. Holland**, P.K. Qasba*, Investigations on β1,4-Galactosyltransferase I using 6-sulfo-GlcNAc as acceptor sugar substrate" *Glycoconjugate Journal*, 30(9), 835-42, **2013**.
41. B.C. Durney, J.A. Lounsbury, B.L. Poe, J.P. Landers, **L.A. Holland***, Thermally Responsive Phospholipid Pseudo-gel: Tunable DNA Sieving with Capillary Electrophoresis" *Analytical Chemistry*, 85(14), 6617-6625, **2013**.
40. X. Wu, T.J. Langan, B.C. Durney, **L.A. Holland***, A Thermally Responsive Phospholipid Preparation for Fluid Steering and Separation in Microfluidics, *Electrophoresis*, 33**,** 2674–81, **2012**.
39. T.J. Langan, **L.A. Holland***, Capillary electrophoresis coupled to electrospray mass spectrometry through a coaxial sheath flow interface and semi-permanent phospholipid coating for the determination of oligosaccharides labeled with 1-aminopyrene-3,6,8-trisulfonic acid, *Electrophoresis* 33, 607-613, **2012**.
38. T.J. Langan, V.T. Nyakubaya, L.D. Casto, T.D. Dolan S.A. Archer-Hartmann, S.L. Yedlapalli, L.J. Sooter, **L.A. Holland***, Assessment of Aptamer-Steroid Binding Using Stacking Enhanced Capillary Electrophoresis, *Electrophoresis* 33, 866-869, **2012**.
37. S.A. Archer-Hartmann, C.L. Crihfield, **L.A. Holland***, On-Line Enzymatic Sequencing of Glycans from Trastuzumab by Phospholipid Assisted Capillary Electrophoresis, *Electrophoresis* 32, 3491–3498, **2011**.
36. S.A. Archer-Hartmann, **L.A. Holland***, Self-Assembled Nanomaterials for Enhanced Chemical Separations, *LC-GC North America*, 29(5), pp. 384-393, **2011**.
35. S.A. Archer-Hartmann, L.M. Sargent, D. Lowry, **L.A. Holland***, Microscale Exoglycosidase Processing and Lectin Capture of Glycans with Phospholipid Assisted Capillary Electrophoresis Separations, *Analytical Chemistry*, 83(7), pp. 2740-2047, **2011**.
34. **L.A. Holland***, Capillary Electrophoresis: Focus on Undergraduate Laboratory" *Journal of Chemical Education*, 88(3), pp 254–256, **2011**.
33. C.M. White, **L.A. Holland***, P. Famouri, "Application of Capillary Electrophoresis to Predict Crossover Frequency of Polystyrene Particles in Dielectrophoresis, *Electrophoresis*, **31**(15), pp. 2664-2671, **2010**
32. L. Bykova, SA. Archer-Hartmann, **L.A. Holland***, L Iwanowicz, VS Blazer, Steroid Determination in Fish Plasma Using Capillary Electrophoresis, *Environmental Toxicology and Chemistry*, 29(9), pp. 1950–1955, **2010**.
31. R. Luo, S.A. Archer-Hartmann, **L.A. Holland***, Transformable Capillary Electrophoresis for Oligosaccharides Separation Using Phospholipid Additives, *Analytical Chemistry*, 82, pp. 1228-1233 **2010**.

Advising/Mentoring

Ph.D. Graduate Researchers: Stephanie Archer-Hartmann (Research Assistant Professor, University of Georgia), Lloyd Bwanali (Perkin Elmer), Liliya Bykova, (Galbraith Laboratories), Cassandra Crihfield (BioHybrid Solutions), Tyler Davis, (Sciex), Brandon Durney, (Northrop Grumman), Srikanth Gattu (Merck), Ted Langan, (Viatris, formerly Mylan), Ruijuan Luo, (Core Facility, University of Michigan), Theron Pappas, (Director of MIS at CareTech) Lindsay M. Veltri (WVU), Christian White, (Nektar) Xingwei Wu, Sri Yedlapalli, (Teva.) **M.S. Graduate Researchers:** Courtney J. Kristoff (KBI Biopharma)

Supervision of Undergraduate or High School Research from 2010-present: Autumn Bullard, Laura Casto, Coltin Kolanko (Morgantown High School), Cassandra Crihfield, Justin Dicks, Tiffany Dolan, William Feeney, Alyson Fulton, Makenzie Green, Wenjuan Gu, Tarra Hall, Amber Kantes, Scott Lopez, Cody Mithchell, Sara Melow, Julia Mouch, Thomas Patrick Neis, Paige Reed, Nick Sargent-Johnson, "Ivy" Shao, Madeline Vandevender, Shaylyn Walter, Rachel White, Jana Woofter.

Invited Presentations By L.A. Holland (2014-present)

2021 Pittcon 2021 Microscale Processing and Sequencing Using Capillary Nanogel Electrophoresis; ACS Fall 2021 Capillary Electrophoresis Separations: New Tools to Advance Biotechnology; FACSS-SciX 2021 Vibrating Sharp Edge Nebulization: New Interfacing for Capillary Electrophoresis and Mass Spectrometry; Pacifichem 2021 Advanced Separation Materials in Capillary Electrophoresis

2020 Pittcon 2020, Low Flow Voltage Free Interface for Capillary Electrophoresis and Mass Spectrometry Driven by VSSI, SciX,

Thermally-Responsive Nanophases in Capillary Electrophoresis Separations, Eastern Analytical Society, A New Voltage-Free Interface for Capillary Electrophoresis and Mass Spectrometry through Vibrating Sharp Edge Spray Ionization,

2019 ISCC, Multifunctional Analyses of Protein Glycosylation with Capillary Electrophoresis

2018 Eastern Analytical Symposium, "Designer Separations with Smart Nanomaterials,"

2017 Eastern Analytical Symposium, "Interpreting and Writing Reviews" , AIChE Annual Meeting, AES Plenary Speaker, "New Paradigms in Gel Electrophoresis", SCiX (formerly FACCS), "Multifunctional Nanomaterials to Screen and Select Proteins", 254th ACS National Meeting & Exposition, "Patterned Capillary Electrophoresis that Enables Unique Combinations of Chemical Selection and "WVNanoSAFE: Tools to foster independence"
PITTCON® 2017, "Biological Targeting and Biomolecular Screening of Nanoparticles"

2016 ITP 2016, "Nanogels: New Materials to Program, Erase, and Redesign Liquid Phase Separations", PITTCON® 2016, "Precision in Analytical Measurements with Nanogels"

2015 Pacifichem, "Responsive Nanogels for Biomolecular Separations", 24th NSF EPSCoR National Conference, Nanotoxicology: Interdisciplinary Research Partnerships", SCIX, "Nanogels for Reversibly Patterned Electrophoretic Separations of Biomolecules" and "Low Cost Microfluidics in the Field and in the Classroom", International Symposium on Organic Electronics and Bioelectronics, "Bioinspired Nanogels", PITTCON® 2015, "Detecting Endocrine Disrupting Chemicals"

2014 2014 ACS Central Regional Meeting, "Multifunctional Nanogels for Integrated Processing", 248th ACS National Meeting, "Tunable Selectivity through Nanogel Separations", 248th ACS National Meeting,"Workshop for teachers to engage students in the electrolysis of water", Gordon Research Conference Bioanalytical Sensors, "Smart Nanogels as Separation Materials", NanoSAFE Bioelectronics and Biosensing Symposium, "Sample Processing Using Nanogels", PITTCON® 2014, "Microfluidics in the Middle School Classroom:", PITTCON® 2014, "Reversible Nanogels for Sample Processing, and Biomarker Separation"

Teaching

Undergraduate Teaching Philosophy:

A major focus of my undergraduate teaching is Instrumental Analysis lecture, Chem 310. Unique and exciting challenges exist for this course. First, the content set by the degree accrediting agency is rigorous. The text (D. A. Skoog, F. J. Holler and S. R. Crouch. Principles of Instrumental Analysis, 6th Edition, Thomson, Brooks/Cole, Belmont, 2007), which is aligned with the content, contains 28 chapters comprised of 850 pages of technical content to be covered in a single semester. In administering Chem 310, there are inherent differences in student experiences and learning styles; however, the course is designed to ensure that all students finish the course with a firm understanding of instrumental analysis and critical thinking skills. This course is supplemented with interactive material on the WVU eCampus course website, including electronic materials that provide real-time feedback to the students. To teach students to think critically, during the lectures problem-based and team-based learning are used. Problems and analytical dilemmas modeled after a real-world scenario are posed in class. From 2007 through 2019 (i.e. pre-pandemic), students were given the American Chemical Society Instrumental Analysis Exam as the final exam for the course. With these learning tools in utilized in the course, the class performance on the American Chemical Society Instrumental Analysis Exam exceeded the national average.

Teaching Experience

Selected for Teaching Scholars Program, Kent State University AY 2000

Graduate	Analytical Seminar (Spring 03, 08-2021 and Fall 06, 09-2020)
	Bioanalytical Chemistry (Fall 02, 03, 04, 08, 10, 12, 14, 16, 18, 20)
	Chemical Separations (Spring 99, 00, 01, Fall 06, 07, 09, 11, 13, 15, 17, 19)
	Mass Spectrometry (Spring 02)
	Molecular Spectroscopy (Fall 06)
Undergraduate	Bioanalytical Chemistry (Fall 02, 03, 04, 10)
	COVID Bioanalytics (Fall 20)
	Chemical Separations (Spring 99, 00, 01, Fall 06, 17, 19)
	Instrumental Analysis (Spring 03, 2007-2021)
	Instrumental Analysis Laboratory (Fall 08, 09, 17)
	Molecular Spectroscopy (Fall 06)
	Quantitative Analysis (Fall 01)
	Quantitative Analysis Lab (Fall 01)
	General Chemistry I (Fall 05, Spring 05)
	General Chemistry I Lab (Fall 05, Spring 05)
Non-science majors	Chemistry in Our World (Fall 99, 00, 01)

Professional Service

Invited Professional Activities

2021	Session co-Chair American Electrophoresis Society programing at Scix 2021
2020-2024	Board of Directors, Society for Microscale Separations and Bioanalysis
2016-present	International Advisory Board, *Analytical Bioanalytical Chemistry*
2016	ITP 2016, Scientific Committee
2012	LACE 2013, Scientific Committee
2011	LACE 2012, Scientific Committee
2011	Lab Automation® 2010, Scientific Committee, Track Chair, Session Chair
2010	Lab Automation® 2009, Scientific Committee, Associate Track Chair, Session Chair

Invited Peer Review: NSF, NASA, NRC
NIH Review:
2021 **ISD** 10/2021, 06/2021, 02/2021
2020 **ISD** 10/2020, 06/2020, 02/2020
2019 **ISD** 10/2019, 06/2019, 02/2019
2018 **ISD** 10/10-10/11/2018, **EBT** 02/08-02/09/2018
2017 **BST-80** AREA (R15) Bioengineering study section 03/09/2017, **ISD** 06/20-06/21/2017, **ISD** 10/17-10/18/2017
2016 **ISD** 06/07-06/08/2016, **SCORE** 10/27-10/28/2016
2015 **IMST-M (02)** 2/26/2015 (Study Section Chair), **IMST-M (02)** 6/18/2015 (Study Section Chair), **ISD** 10/7-10/8/2015
2014 **EBIT** 10/9-10/10/2014, **ZES1-SET-J-R4**, 12/3/2014-12/4/2014
2013 **EBIT** 2/7 – 2/8/2013; **ZRG1 -IMST -L -(11)** 3/8/2013; **ZGM1 -BBCB -A -(BT),** 3/12/2013
2012 **ZRR1 BT-7** 02/21/2012, **ZES1-SET-D-(K)** 05/17/2012, **EBIT** 10/10 – 10/11/2012
2009-2011 **ZRR1 BT-7**(01) 02/23/2011 and **ZRG1-IMST-G-(**10) 02/28/2011, 2010 **ZRR1 BT-7(**01), ZCA1 **SRLB-Q**(01), **ZRG1-IMST-G** 10B, 2009 **ZRR1 BT-7** (01)

Reviewer for: *Analyst, Analytical Chemistry, Analytical and Bioanalytical Chemistry, Analytica Chimica Acta, Analytical Methods, Analytical Sciences Digital Library, Electrophoresis, Fresenius' Journal of Analytical Chemistry, Journal of Chemical Education, Journal of Chromatography, Journal of Chromatographic Science, Journal of Combinatorial Chemistry, Journal of Environmental Analytical Chemistry, Journal of Pharmaceutical and Biomedical Analysis, Journal of Physical Chemistry, Journal of Separation Science, Lab on a Chip, Langmuir, Methods, Sensors and Actuators B, Talanta*

Organization of Scientific Meetings (2014-present)

2021	FACSS-SCiX 2021, AES Session Co-Chair
March 2016	PITTCON® 2016, session organizer "Analytical Advances in Sustainable and Safe Nanotechnology"
March 2015	PITTCON® 2015, session organizer "New Tools for the Environmental Water Analysis"
March 2014	PITTCON® 2014, session organizer "Nanofabrication and Nanoconstructs for Chemical Separations"

Departmental Service

2017-2018	Chair, Curriculum Committee, member Safety Committee
2011-2012	Chair, Bioanalytical Chemistry Faculty Search Committee
2008-2011	Shops, Major Instruments, and Computers Committee
2008-2015	Dept. Building Safety, Security Committee
2007-2009	Chair, Biochemistry Degree Program (ad hoc subcommittee of the undergraduate studies committee)
2006-2007	Awards and Scholarship Committee, Chemistry Department
2002-2010	Graduate Committee, Chemistry Department

College Service

2016-2021	Co-Chair, Eberly College Natural Sciences Tenure and Promotion Committee
2015-2016	Eberly College Natural Sciences Tenure and Promotion Committee