THANH **DO**

University of Tennessee, Knoxville ● Department of Chemistry
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https://chem.utk.edu/people/thanh-do/ ● http://volweb.utk.edu/~tdo5/index.html

EDUCATION

SEPTEMBER 2015 - JULY 2018

Postdoctoral Research in Analytical Chemistry

UNIVERSITY OF ILLINOIS URBANA-CHAMPAIGN

Advisor: *Dr. Jonathan V. Sweedler*
Postdoctoral Research: Develop and apply high throughput mass spectrometry analyses of single cells. Work resulted in 5 publications

JULY 2010 - SEPTEMBER 2015

Ph.D. in Physical Chemistry

UNIVERSITY OF CALIFORNIA AT SANTA BARBARA

Advisor: *Dr. Michael T. Bowers*
Dissertation Research: Ion-mobility mass spectrometry and computational modeling of disease-related protein aggregation. Predict aggregation propensity based on amino acid clusters. Work resulted in 22 publications.

JANUARY 2006 - MAY 2010

B.S. in Chemistry and Mathematics

GONZAGA UNIVERSITY

Advisors: *Dr. Joanne Smieja*, *Dr. David Cleary*, and *Dr. Stephen Warren*
Thesis Research: Searching for multi-component metal oxides for photoelectrochemical water splitting. Curating protein structures in RCSB PDB databank. Work resulted in 2 publications.

APPOINTMENTS

UNIVERSITY OF TENNESSEE, KNOXVILLE

Assistant Professor of Chemistry **Aug 2018 - Present**

PEER-REVIEWED PUBLICATIONS (H-INDEX 23)

UNIVERSITY OF TENNESSEE, KNOXVILLE

Names of UTK graduate student mentees are **bold**, names of UTK undergraduate mentees are ***bold and italicized***.

14. **Antevska, A.**; ***Long, C.C.***; Dupuy, S.D.; Collier, J.J.; Karlstad, M.D.; **Do, T.D.**[*] *The Effects of Acute Corticosterone Treatment on Mouse Pancreatic Peptide Hormones Probed at the Sub-Single-Islet Level*. 2022, submitted.

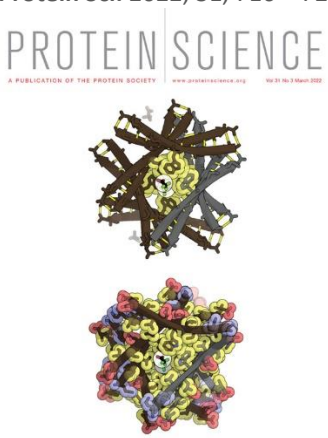
13. **Limbach, M. N.**; **Antevska, A.**; **Oluwatoba, D. S.**; **Gray, A.L.H.**; Hoffmann, C.; Wang, X.; Voehler, M.; Carroll, X.; Steren, C. A.; **Do, T. D.*** *Atomic View of Aqueous Cyclosporine A: Unpacking a Decades-Old Mystery*. **J. Am. Chem. Soc**. 2022, *ASAP* (DOI: 10.1021/jacs.2c01743).

- Science Blog: Figuring Out Macrocycles
- Faculty Opinions

12. Russell, C. M.; Schaefer, K. G.; Dixson, A.; **Gray, A. L. H.**; Pyron, R. J.; Alves, D. S.; Moore, N.; Conley, E. A.; White, T. A.; **Do, T. D.**; King, G. M.; Barrera, F. N. *The C. albicans virulence factor Candidalysin polymerizes in solution to form membrane pores and damage epithelial cells*. **Elife** 2022, *1st revision submitted*. BioRXiv: https://doi.org/10.1101/2021.11.11.468266.

11. **Oluwatoba, D. S.**; Faizul, Md. I.; Som, Bozumeh; Sindt, A. J.; Shimizu, L. S.; **Do, T. D.*** *Metal Adduction and Charge Isomerism Investigated using m-Xylene Macrocycles as Model Systems*. **J. Am. Soc. Mass Spectrom.** 2022, 33, 840-850.

10. **Gray, A. L. H.**; Sawaya, M. R.; Acharyya, D.; Lou, J.; ***Edington, E.***; Best, M. D.; Prosser, R. A.; Eisenberg, D.; **Do, T. D.*** *Atomic View of an Amyloid Dodecamer Exhibiting Selective Cellular Toxic Vulnerability in Acute Brain Slices*. **Protein Sci.** 2022, 31, 716 – 727. (PDB ID 7ROL, 7ROJ).



9. Hossain, M. S.; Sindt, A. J.; Goodlett, D. W.; Shields, D.; O'Connor, C. J.; **Antevska, A.**; Karakalos, S. G.; Smith, M. D.; Garashchuk, S.; **Do, T. D.**, Gudmundsdottir, A. D.; Shimizu, L. S. *Effects of Self-Assembly on the Photogeneration of Radical Cations in Halogenated Triphenylamines*. **J. Phys. Chem. C** 2021, 125, 19991 - 20002.

8. **Gray, A. L. H.**; **Antevska, A.**; ***Link, B. A.***; Bogin, B.; Burke, S.; Dupuy, S.; Collier, J. J.; Levine, Z.; Karlstad, M. D.; **Do, T. D.*** *α-CGRP Disrupts Amylin Fibrillization and Regulates Insulin Secretion: Implications on Diabetes and Migraine*. **Chem. Sci.** 2021, 12, 5853 – 5864.

- EurekAlert!: https://www.eurekalert.org/news-releases/924301
- El Confidential (Spanish newspaper): https://www.alimente.elconfidencial.com/bienestar/2021-08-29/relacion-migranas-menos-riesgo-diabetes_3250054/
- News-Medical Life Sciences: https://www.news-medical.net/news/20210826/Migraine-inducing-peptides-may-protect-against-diabetes-by-influencing-insulin-production.aspx
- SciTechDaily: https://scitechdaily.com/how-migraines-protect-against-type-2-diabetes/
- NewsBeezer (Singapore): https://newsbeezer.com/singapore/how-migraines-protect-against-type-2-diabetes/
- Fierce Biotech: https://www.fiercebiotech.com/research/mouse-study-shows-how-causes-behind-migraine-pain-can-improve-diabetes-treatment
- ACS Press Release: https://www.acs.org/content/acs/en/pressroom/news-room/meeting-news-releases-fall-2021.html

7. **Gray, A. L. H.**; Steren, C.; ***Haynes, I. W.***; Bermejo, G.A.; Favretto, F.; Zweckstetter, M.; **Do, T. D.*** *Structural Flexibility of Cyclosporine A is Mediated by Amide Cis-Trans Isomerization and the Chameleonic Roles of Calcium*. **J. Phys. Chem. B** 2021, 125, 1378 – 1391.

6. Yazdi, D. S.; Bar-Yosef, D. L.; Adsi, H.; Shaham-Niv, S.; Bera, S.; Sigal, S.; Zaguri, D.; **Oluwatoba, D. S**.; Levy, D.; **Do, T. D.**; Frenkel, D.; Gazit, E. *Homocysteine Fibrillar Assemblies Display Metabolite-Protein Cross-talk*. **Proc. Natl. Acad. Sci. U.S.A.** 2021, 118 (24), e2017575118.

5. **Gray, A. L. H.**; **Antevska, A.**; **Oluwatoba, D. S.**; Schonfeld, G.; Lazar-Cantrell, K. L.; **Do, T. D.*** *Cytotoxicity of α-Helical, Staphylococcus Aureus PSMα3 Investigated by Post Ion-Mobility Dissociation Mass Spectrometry*. **Anal. Chem.** 2020, 92, 11802 – 11808.

4. ***Link, B. A.***; Ammon, S. J.; Shimizu, L. S.; **Do, T. D.*** *Selective Host-Guest Chemistry, Self-Assembly and Conformational Preferences of m-Xylene Macrocycles Probed by Ion-Mobility Spectrometry Mass Spectrometry*. **Phys. Chem. Chem. Phys.** 2020, 20, 9290 – 9300.

3. ***Haynes, I. W.***; Wu, G.; **Haque, Md. A.**; Li, H.; **Do, T. D.*** *Conformational Preference of Macrocycles Investigated by Ion-Mobility Mass Spectrometry and Distance Geometry Modeling*. **Anal. Chem.** 2019, 91, 13439 – 13447.

2. Laos, V.; **Do, T. D.**; Bishop, D.; Jin, Y.; Marsh, N.; Quon, B.; Korff, M.; Cantrell, K. L.; Buratto, S. K., Bowers, M. T. *Characterizing TDP-43(307-319) Oligomeric Assembly to Elucidate Mechanistic and Structural Implications Involved in the Etiology of ALS*. **ACS Chem. Neurosci.** 2019, 10, 4112 – 4123.

1. Neumann, E. K.; **Do, T. D.**; Comi, T. J.; Sweedler, J. V. *Exploring the Fundamental Structures of Life: Non-targeted, Chemical Analysis of Single Cells and Subcellular Structures*. **Angew. Chem., Int. Ed.** 2019, 31, 9448 – 9465.

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5. **Do, T. D.***; Checco, J. W.; Tro, M.; Shea, J.-E.; Bowers, M. T.; Sweedler, J. V. *Conformational Investigation of the Structure–Activity Relationship of GdFFD and Its Analogues on an Achatin-like Neuropeptide Receptor of Aplysia californica Involved in the Feeding Circuit*. **Phys. Chem. Chem. Phys.** 2018, 20, 22047 – 22057. (Co-corresponding author)

4. **Do, T. D.**; Ellis, J. F.; Neumann, E. K.; Comi, T. J.; Tillmaand, E.; Lenhart, A.; Rubakhin, S.; Sweedler, J. V. *Optically Guided Single Cell Mass Spectrometry of Rat Dorsal Root Ganglia to Profile Lipids, Peptides and Proteins*. **ChemPhysChem** 2018, 19, 1180 – 1191.

3. Comi, T. J.; Neumann, K. E.; **Do, T. D.**; Sweedler, J. V. microMS: *A Python Platform for Image-guided Mass Spectrometry Profiling*. **J. Am. Soc. Mass Spectrom.** 2017, 28, 1919 – 1928.

2. Comi, T. J.; **Do, T. D.**; Rubakhin, S.; Sweedler, J. V. *Categorizing Cells based on their Chemical Profiles: Progress in Single Cell Mass Spectrometry*. **J. Am. Chem. Soc.** 2017, 139, 3920 – 3929.

1. **Do, T. D.**; Comi, T. J.; Dunham, S. J. B.; Rubakhin, S.; Sweedler, J. V. *Single Cell Profiling using Ionic Liquid Enhanced Secondary Ion Mass Spectrometry for Neuronal Cell Type Differentiation*. **Anal. Chem.** 2017, 89, 3078 – 3086.

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22. **Do, T. D.**; Sangwan, S.; de Almeida, N. E. C.; Ilitchev, A. I.; Giammona, M.; Buratto, S. K.; Eisenberg, D.; Bowers, M. T. *Distal Amyloid β-Protein Fragments Template Amyloid Assembly*. **Protein Sci.** 2018, 27, 7, 1181 – 1190.

21. Sangwan, S.; Zhao, A.; Adams, K. L.; Jayson, C. K.; Sawaya, M. R.; Guenther, E. L.; Pan, A. C.; Ngo, J.; Moore, D.; Soriaga, A. B.; **Do, T. D.**; Goldsmith, L.; Nelson, R.; Bowers, M. T.; Koehler, C. M.; Shaw, D. E.; Novitch, B. G.; Eisenberg, D. S. *Atomic Structure of a Toxic, Oligomeric Segment of SOD1 Linked to Amyotrophic Lateral Sclerosis (ALS).* **Proc. Natl. Acad. Sci. U.S.A.** 2017, 114, 8770 – 8775.

20. de Almeida, N. E. C.; **Do, T. D.**; Tro, M.; LaPointe, N. E.; Feinstein, S. C.; Shea, J.-E.; Bowers, M. T. *1,2,3,4,6-penta-O-galloyl-β-D-glucopyranose Binds to the N-terminal Metal Binding Region to Inhibit Amyloid β-protein Oligomer and Fibril Formation*. **Int. J. Mass Spectrom.** 2017, 420, 24 – 34.

19. Kim, B.; **Do, T. D.**; Hayden, E. Y.; Teplow, D. B.; Bowers, M. T., Shea, J.-E. Aggregation of Chameleon Peptides: Implications of α-Helicity in Fibril Formation. **J. Phys. Chem. B** 2016, 120, 5874 – 5883.

18. Feinstein, H. E.; Benbow, S. J.; LaPointe, N. E.; Patel, N.; Ramachandran, S.; **Do, T. D.**; Gaylord, M. R.; Huskey, N. E.; Dressler N.; Korff M.; Quon, B.; Lazar Cantrell, K.; Bowers, M. T.; Lal, R.; Feinstein, S. C. *Oligomerization of the Microtubule Associated Protein Tau is Mediated by its N-terminal Sequences: Implications for Normal and Pathological Tau Action*. **J. Neurochem.** 2016, 137, 939 – 954. (Co-first author).

17. Economou, N. J.; Giammona, M. J.; **Do, T. D.**; Zheng, X.; Teplow, D. B.; Buratto, S. K.; Bowers, M. T. *Amyloid β-protein Assembly: Dodecamers of Aβ$_{42}$, but not of Aβ$_{40}$, Seed Fibril Formation*. **J. Am. Chem. Soc.** 2016, 138, 1772 – 1775.

16. Ilitchev, A.; Giammona, M.; **Do, T. D.**; Shea, J.-E.; Buratto, S. K.; Bowers, M. T. *N-Terminus Disulfide Bond of Human Islet Amyloid Polypeptide: Fragment Self-Assembly and Impact on Full Peptide Aggregation.* **J. Am. Soc. Mass Spectrom.** 2016, 27, 1010 – 1018.

15. de Almeida, N. E. C.; **Do, T. D.**; Tro, M.; LaPointe, N. E.; Feinstein, S. C.; Shea, J.-E.; Bowers, M. T. *The Opposite Effects of Cucurbit[7]uril and 1,2,3,4,6-penta-O-galloyl-β-D-glucopyranose on Amyloid Aβ(25-35) Assembly*. **ACS Chem. Neurosci.** 2016, 7, 218 – 226. (Co-first author)

14. **Do, T. D.**; LaPointe, N. E.; Nelson, R.; Kortee, P.; Feinstein, S. C.; Teplow, D. B.; Eisenberg, D.; Shea, J.-E.; Bowers, M. T. *Amyloid β-Protein C-terminal Fragments: Formation of Cylindrins and β-Barrels*. **J. Am. Chem. Soc.** 2016, 138, 549 – 557.

13. **Do, T. D.**; de Almeida, N. E. C.; LaPointe, N. E.; Chamas, A.;] Feinstein, S. C.; Bowers, M. T. *Amino Acid Metaclusters: Implications of Growth Trends on Peptide Self-Assembly.* **Anal. Chem.** 2016, 88, 868 – 876.

12. Eschmann, N. A.; **Do, T. D.**; LaPointe, N. E.; Shea, J.-E.; Feinstein, S. C.; Bowers, M. T.; Han, S. *Tau Aggregation Propensity Engrained in its Solution State*. **J. Phys. Chem. B** 2015, 119, 14421 – 14432.

11. **Do, T. D**.; Kincannon, W. M.; Bowers, M. T. *Phenylalanine Oligomers and Fibrils: The Mechanism of Assembly and the Importance of Tetramers and Counter Ions*. **J. Am. Chem. Soc.** 2015, 137, 10080 – 10083.

10. **Do, T. D.**; Chamas, A.; Barnes, A.; Chang, D.; Veldstra, T.; Takhar, H.; Dressler, N.; Trapp, B.; Miller, K.; McMahon, A.; Meredith S. C.; Shea, J.-E.; Lazar Cantrell, K.. Bowers, M. T. *Elucidation of the Aggregation Pathways of Helix-Turn-Helix Peptides: Stabilization at the Turn Region is Critical for Fibril Formation*. **Biochemistry** 2015, 54, 4050 – 4062.

9. Ganguly, P.; **Do, T. D.**; Larini, L.; LaPointe, N. E.; Feinstein, S. C.; Bowers, M. T.; Shea, J.-E. *Tau Assembly: The Dominant Role of PHF6 (VQIVYK) in Microtubule Binding Region Repeat R3*. **J. Phys. Chem. B** 2015, 119, 4582 – 4593.

8. **Do, T. D.**; Bowers, M. T. *Diphenylalanine Self Assembly: Novel Ion Mobility Methods Show the Essential Role of Water*. **Anal. Chem.** 2015, 87, 4245 – 4252.

7. **Do, T. D.**; Economou, N. J.; Chamas, A.; Buratto, S. K.; Shea, J.-E.; Bowers, M. T. *Interactions between Amyloid-β and Tau Fragments Promote Aberrant Aggregates: Implications for Amyloid Toxicity*. **J. Phys. Chem. B** 2014, 118, 11200 – 11230.

6. **Do, T. D.**; LaPointe, N. E.; Sangwan, S.; Teplow, D. B.; Feinstein, S. C.; Sawaya, M. R.; Eisenberg, D. S.; Bowers, M. T. *Factors that Drive Peptide Assembly from Native to Amyloid Assembly: Experimental and Theoretical Analysis of [Leu-5]-Enkephalin Mutants*. **J. Phys. Chem. B** 2014, 118, 7247 – 7256.

5. Bleiholder, C.; **Do, T. D.**; Wu, C.; Economou, N. J.; Bernstein, S. S.; Buratto, S. K.; Shea, J.-E.; Bowers, M. T. *Ion Mobility Spectrometry Reveals the Mechanism of Amyloid Formation of Aβ(25-35) and its Modulation by Inhibitors*

at the Molecular Level: Epigallocatechin gallate and scyllo-inositol. **J. Am. Chem. Soc.** 2013, 135, 16926 – 16937. (Co-first author)

4. **Do, T. D.**; LaPointe, N. E.; Economou, N. J.; Buratto, S. K.; Feinstein, S. C.; Shea, J.-E.; Bowers, M. T. *Effects of pH and Charge State on Peptide Assembly: the YVIFL Model System*. **J. Phys. Chem. B** 2013, 117, 10759 – 10768.

3. **Do, T. D.**; Economou, N. J.; LaPointe, N. E.; Kincannon, W.; Buratto, S. K.; Feinstein, S. C.; Teplow, D. B.; Bowers, M. T. *Factors That Drive Peptide Assembly and Fibril Formation: Experimental and Theoretical Analysis of Sup35 NNQQNY Mutants*. **J. Phys. Chem. B** 2013, 117, 8436 – 8446.

2. Larini, L.; Gessel, M. M.; LaPointe, N. E.; **Do, T. D.**; Bowers, M. T.; Feinstein, S. C.; Shea, J.-E. Initiation of Assembly of Tau(273-284) and its ΔK280 Mutant: An Experimental and Computational Study. **Phys. Chem. Chem. Phys.** 2013, 15, 8916 – 8928. (Co-first author)

1. Bleiholder, C.; Contreras, S.; **Do, T. D.**; Bowers, M. T. *A Novel Projection Approximation Algorithm for the Fast and Accurate Computation of Molecular Collision Cross Sections (II). Model Parameterization and Definition of Empirical Shape Factors for Proteins*. **Int. J. Mass Spectrom.** 2013, 345-347, 89 – 96.

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2. Rowley, J. G.; **Do, T. D.**; Cleary, D. A.; Parkinson, B. A. Combinatorial Discovery Through a Distributed Outreach Program: Investigation of the Photoelectrolysis Activity of p-type Fe, Cr, Al Oxide. **ACS Appl. Mater. Interfaces** 2014, 6, 9046 – 9052.

1. Warren, G. L.; **Do, T. D.**; Kelley, B. P; Nicholls, A; Warren, S. D. Essential Considerations for Using Protein-Ligand Structures in Drug Discovery. **Drug Discov. Today** 2012, 17, 1270 – 1281.

ACADEMIC INFORMATION

COURSES TAUGHT

Chemistry 370:	Introduction to Physical Chemistry. *Fall 2018, Spring 2020* A required junior level lecture course.
Chemistry 513:	Mass Spectrometry and Surface Analysis. *Spring 2019, Fall 2020, Spring 2022* A required graduate level course in Analytical track.
Chemistry 470:	In-Depth Physical Chemistry. *Spring 2021* An elective senior level lecture course.
Chemistry 501:	Chemistry Seminar. *Fall 2021, Spring 2022* Lectures and discussion on current research by faculty nominated speakers

Ph.D. STUDENTS

Emmanuel Nkyaagye (2022-current; Analytical)

Edward Lindberg (2022-current; Physical)

Sarah Hirschbeck (2020-current; Analytical)

Miranda Limbach (2020-current; Physical)

- Second Year Candidacy Award (UTK, 2022)
- One of the 11 students selected to attend 2022 User Summer School at the High Magnet Lab in Florida.
- ACS Bridge Travel Award (2022)

Damilola Oluwatoba (2019-current; Inorganic)

- Selected as one of ten students to attend the 24th National School on Neutron and X-Ray Scattering

Aleksandra Antevska (2019-current; Analytical)

- Gleb Mamantov Graduate Chemistry Scholar (UTK, 2022)
- Graduate Student Senate Teaching Award (UTK, 2022)
- Keenan Teaching Award (UTK, 2021)
- Graduate Student Senate Travel Award (UTK, 2021)
- Graduate Student Teaching Award (UTK, 2022)

Amber Gray (2018-2022; Analytical. Current position: Postdoctoral Fellow at the FDA starting in Sep 2022)

- Graduate Student Senate Research Award (2022)
- Graduate Student Senate Travel Award (UTK, 2020)
- Keenan Teaching Award (UTK, 2020)
- Judson Hall Robertson Fellowship in Analytical Chemistry (UTK, 2021)
- Eastman Summer Fellowship (Eastman Chemical Company, 2021)
- Graduate Student Research Award (UTK, 2022)

Ashraful Haque (2018)

Undergraduate RESEARCHERS

Quinn Brink (REU Chem, Gonzaga University, Summer 2022)

Elijah Layton (REU Chem, Gonzaga University, Summer 2021)

Anh Nguyen (ChemE, 2020-2021): Ph.D. Student in Chemical Engineering, University of Tennessee

Madison Sturgill (BCMB, 2021-2022)

Connor Long (BCMB, 2020-current): MD Program at Eastern Tennessee State University.

- Summer Undergraduate Research Internship Program (UTK, 2021)
- Faculty Research Assistant Funding Award (UTK, 2021)
- Honors & Scholars Program Travel grant (UTK, 2021)
- Office of Undergraduate Research Travel grant (UTK, 2021)

Uyen (Wen) Nguyen (Chemistry, 2020)

Katelyn Laughon (Chemical Engineering, 2020): Ph.D. Student in Chemistry, Yale University

Benjamin Link (Chemistry & Physics, 2019-2020): Ph.D. Student in Chemistry, University of Washington

- Outstanding Chemistry Graduate (UTK, 2020)

Isaac Haynes (Chemistry & German, 2019-2020): Ph.D. Student in Chemistry, Texas A&M University

- Outstanding Chemistry Graduate (UTK, 2020)

Emery Edington (2018-2019): Research Assistant, Metabolism Interest Group, Vanderbilt University

RECENT CONFERENCES

7. “Toward Aerosolomics with Triboelectric Nanogenerator Coupled to Ion-Mobility Mass Spectrometry (TENG-IMS-MS) and Infrared Ion Spectroscopy (IRIS)” ***IARPA Workshop on Aerosols IARPA-RFI-22-05***, Arlington, VA 2022.
6. “Elucidating Biomolecular Structures and Disease Mechanisms with Mass Spectrometry and Crystallography” ***HUPO*** *(The Human Proteome Organization)*, Charleston, SC 2022.
5. “New Class of Amyloid Oligomers Linking Selective Cellular Vulnerability to Disrupted Lipid Metabolism” ***ASMS Asilomar***, Monterey, CA 2022.
4. “Elucidating molecular connections between migraine and diabetes via neuropeptides” by Aleksandra Antevska (graduate student)
“An atomic view of unique amyloid dodecamer exhibits selective cell vulnerability among mouse brain tissues” by Amber Gray (graduate student)
ACS Fall 2021, Atlanta, GA 2021.

3. “Understanding Circadian Dysfunction in Alzheimer's Disease” (Invited Talk). ***Southeastern Regional Meeting (SERMACS)***, Savannah, GA 2019.
2. “The Application of MD and Ion-mobility MS to Structure Determination” (Invited Talk). ***ASMS Sanibel***, St. Petersburg, FL 2018.
1. “Single-cell Mass Spectrometry: From Subpopulations to Subtypes” (Invited Talk). ***SCIX 2017***, Reno, NV 2017.

SEMINAR TALKS

6. April 2022 – Dept. of Chemistry, Vanderbilt University.
5. October 2021 – Dept. of Chemistry, Aquinas College; Dept. of Chemistry, Univ. of Wisconsin, Oshkosh.
4. May 2021 – Dept. of Chemistry, Berea College.
3. November 2020 – Board of Visitors Meeting, University of Tennessee.
2. March 2019 - Dept. of Chemistry, East Tennessee State University.
1. December 2018 - Biochemistry and Molecular Cell Biology, University of Tennessee.

PROFESSIONAL MEMBERS

American Society of Mass Spectrometry (ASMS): 2015 – current, Member.

SERVICE

UTK Chemistry: Graduate Recruiting Committee (Member; 2019-present), Safety Committee (Member; 2018-present), Field and Equivalence Testing (Lead; 2021-present)
Assistant/Associate Professor in Analytical Chemistry Search Committee (2021-2022)
UTK Provost’s Junior Faculty Fellows advisory council (2021-present)
National Institute of Health Study Section

- Biophysics of Neural Systems (Temporary Member; 06/2021)

Journal Referee for Journals. Journal of American Chemical Society, Analytical Chemistry, Physical Chemistry Chemical Physics, RSC Advances, Analytical Bioanalytical Chemistry, Journal of Physical Chemistry B, ACS Chemical Neuroscience, ACS Omega, Scientific Reports, Journal of American Society of Mass Spectrometry, Biochimica et Biophysica Acta.

- An Outstanding Reviewer for Analytical Bioanalytical Chemistry (2019, 2020), Physical Chemistry Chemical Physics (2020).

AWARDS

ASMS Research Award (2022)
Student-Faculty Research Award (UTK, 2021 with Connor Long)
Yzurdiaga Graduate Student Fellowship (UCSB, 2015)
Doctoral Student Travel Grant (UCSB, 2014)
Outstanding Teaching Assistant (UCSB, 2010)
American Institute of Chemists Outstanding Chemistry Senior Award (Gonzaga, 2010)
Mathematical Association of America, MAA award (Gonzaga, 2007-2008)
International Student Scholarship (Gonzaga, 2005-2010)