Wayne State University Chemistry
5101 Cass Ave.

Email: arwalker@wayne.edu

Detroit, MI 48202 Websites: Google Scholar, ResearchGate

### **Education**

March 2018 Ph.D. in Physical Chemistry, University of North Texas
Dissertation: Computational Simulations of Cancer and Disease-Related

Enzymatic Systems using Molecular Dynamics and Combined Quantum Methods

September 2013-August 2016 Ph.D. Candidate in Physical Chemistry, Wayne State University

May 2011 B.S. in Chemistry with distinction, University of Michigan-Dearborn

### **Professional Experience**

Carl R. Johnson Early Career Endowed Chair at Wayne State University (Detroit, MI), August 2024-present.

**Assistant Professor** at Wayne State University (Detroit, MI), August 2021-present.

Postdoctoral Scholar at Stanford Linear Accelerator Lab/Stanford University (Stanford, CA), May 2018-July

2021

Adviser: Prof. Todd J. Martínez

#### **Awards and Honors**

Maximizing Investigators' Research Award (MIRA), National Institutes of Health (2024)

American Society of Photobiology Junior Faculty Travel Award, Chicago, IL (2024)

Carl R. Johnson Early Career Endowed Chair, Wayne State University (2024)

NSF Career Award, National Science Foundation (2024)

**Ebbing Faculty Development Award**, Wayne State University (2022)

Promise in COMP Award, 258th ACS National Meeting, San Diego, CA (2019)

Robert Wade Brown Award, University of North Texas (2018)

Chemical Computing Group Excellence Award, 255th ACS National Meeting, New Orleans, LA (2018)

American Society for Mass Spectrometry Sanibel Conference Travel Award, St. Petersburg, FL (2018)

Award for Best Poster, 6th EU-US Conference on Repair of Endogenous DNA Damage, University of Udine (2017)

**College of Science Travel Grant**, University of North Texas (2017)

Ed and Julie Hodges Memorial Scholarship, University of North Texas (2017)

ANTON Molecular Dynamics Simulations Computing Award, PSCA15038 (2015)

Chemistry-Biology Interface (CBI) Fellowship, Chemistry Division (2015-16)

Honor Citation for Teaching Services in Chemistry, Wayne State University (2013)

# Research Grants and External Support

1. [Active] National Science Foundation (CHE2338804): CAREER: Computational Design of Fluorescent Proteins with Multiscale Excited State QM/MM Methods

Total Award: \$690,816.00 Role: Sole PI Period: 4/1/2024-3/31/2029

2. [Active] National Institutes of Health (1R35GM154949-01): Computational rational design of carbohydrate and nucleic acid drug scaffolds with multiscale dynamics and AI.

Total Award: \$1,811,366.00 Role: Sole PI Period: 9/10/2024-9/9/2029.

### **Students Supervised**

#### **Graduate Students:**

Solomon Yamoah Effah (2021-present) Widana Kaushalya (2021-present) Vishaka Pathiranage (2021-present) Victoria Mfon Sunday (2022-present) Anita Adams (2022-present) Pramoda Gamage (2023-present) Janya Subasinghe (2023-present)

#### **Postdoctoral Researchers:**

Mark A. Hix (2022-present) Christina McCulley (2021-2023)

#### **Undergraduate Students:**

Ashlyn Murphy (2021-2022), UCSD John Muller (2022-2024) Nathaniel Turner (2021-2023) Morgan Grougan (2022-present)

### **Peer Reviewed Publications**

Single stars (\*) indicate equal authorship.

- 26. Mark A. Hix and <u>Alice R. Walker</u>. Adaptive restraints to accelerate geometry optimizations of large biomolecular systems. *Journal of Computational Chemistry*. Accepted 2025. Preprint: https://chemrxiv.org/engage/chemrxiv/article-details/6490b93ba2c387fa9a94f6o7 Source code: https://github.com/arwalkerlab/TeraChemAdaptiveRestraints/
- 25. Mark A. Hix, Pramoda Gamage, Ashok S. Bhagwat, and <u>Alice R. Walker</u>. DNA hairpin base-flipping dynamics drives APOBEC<sub>3</sub>A recognition and selectivity. *Physical Chemistry Chemical Physics*. Accepted 2025.
- 24. Solomon Y. Effah, Mark A. Hix, and <u>Alice R. Walker</u>. Strategic design of fluorescent perylene-modified nucleic acid monomers: Position-, phosphorylation-, and linker-dependent control of electron transfer. *Journal of Chemical Information and Modeling*, 65(6):2940–2949, 2025. PMID: 40028910
- 23. Cuixin Lai, Lina Yang, Vishaka Pathiranage, Ruizhao Wang, Fedor V. Subach, <u>Alice R. Walker</u>, and month = oct year = 2024 pages = 1375 Piatkevich, Kiryl D. Genetically encoded green fluorescent sensor for probing sulfate transport activity of solute carrier family 26 member a2 (Slc26a2) protein. *Communications Biology*, 7(1)
- 22. Elisa Pieri, <u>Alice R. Walker</u>, Mingning Zhu, and Todd J. Martínez. Conical intersection accessibility dictates brightness in red fluorescent proteins. *Journal of the American Chemical Society*, 146(26):17646–17658, July 2024
- 21. Gibson Kirui, Widana Kaushalya, S. Sameera Perera, <u>Alice R. Walker</u>, and Cláudio N. Verani. Influence of peripheral and ancillary changes on the electron transport of HS3d5 FeIII metallosurfactants substituents, chain length, subphase polarity, and junction electrodes. *Journal of Physical Chemistry C*, 128(25):10668–10681, June 2024
- 20. Christina H. McCulley and <u>Alice R. Walker</u>. Dimer interface destabilization of photodissociative Dronpa driven by asymmetric monomer dynamics. *Journal of Physical Chemistry B*, 127(43):9248–9257, November 2023

3

19. Yasmin Shamsudin, <u>Alice R. Walker</u>, Chey M. Jones, Todd J. Martínez, and Steven G. Boxer. Simulation-guided engineering of split GFPs with efficient  $\beta$ -strand photodissociation. *Nature Communications*, 14(1):7401, 2023

- 18. Mark A. Hix and <u>Alice R. Walker</u>. AutoParams: An automated web-based tool to generate force field parameters for molecular dynamics simulations. *Journal of Chemical Information and Modelling*, 63(20):6293–6301, October 2023
- 17. Abigail Cousino, Lanka D. Wickramasinghe, Widana Kaushalya, S. Sameera Perera, Habib Baydoun, Alice R. Walker, and Cláudio N. Verani. Studies on monolayer formation and electron transport in Au | LB | Au junctions containing 3d4 MnIII metallosurfactants. *Journal of Physical Chemistry C*, 127(33):16654–16667, August 2023
- 16. Joseph Wakpal, Vishaka Pathiranage, <u>Alice R. Walker</u>, and Hien M. Nguyen. Rational design and expedient synthesis of heparan sulfate mimetics from natural aminoglycosides for structure and activity relationship studies. *Angewandte Chemie International Edition*, 62(32):e202304325, 2023
- 15. Whitney S. Y. Ong, Ke Ji, Vishaka Pathiranage, Caden Maydew, Kiheon Baek, Rhiza Lyne E. Villones, Gabriele Meloni, <u>Alice R. Walker</u>, and Sheel C. Dodani. Rational design of the  $\beta$ -bulge gate in a green fluorescent protein accelerates the kinetics of sulfate sensing. *Angewandte Chemie International Edition*, 62(26):e202302304, 2023
- 14. Ashlyn R. Murphy, Mark A. Hix, and <u>Alice R. Walker</u>. Exploring the effects of mutagenesis on FusionRed by using excited-state QM/MM dynamics and classical force field simulations. *ChemBioChem*, 24(12):e202200799, 2023. Featured on Cover.
- 13. Solomon Yamoah Effah, W. K. D. N. Kaushalya, Mark A. Hix, and <u>Alice R. Walker</u>. Computational investigations of the excited state dynamics and quenching mechanisms of polycyclic aromatic hydrocarbon DNA adducts in solution. *Electronic Structure*, 2022
- 12. <u>Alice R. Walker</u>, Boning Wu, Jan Meisner, Michael D. Fayer, and Todd J. Martínez. Proton transfer from a photoacid to a water wire: First principles simulations and fast fluorescence spectroscopy. *Journal of Physical Chemistry B*, 125(45):12539–12551, November 2021. Featured on Supplemental Cover.
- 11. Madison B. Berger, <u>Alice R. Walker</u>, Erik Antonio Vázquez-Montelongo, and G. Andrés Cisneros. Computational investigations of selected enzymes from two iron and  $\alpha$ -ketoglutarate-dependent families. *Physical Chemistry Chemical Physics*, 23:22227–22240, 2021

#### Preprints and manuscripts under review:

- Cheng Chen\*, Vishaka Pathiranage\*, Whitney S. Ong, Sheel Dodani, <u>Alice R. Walker</u>, and Chong Fang. A twisted chromophore that powers a fluorescent protein chloride sensor. Under review. https://chemrxiv.org/engage/chemrxiv/article-details/669ce9ee5101a2ffa8388287
- Widana Kaushalya and <u>Alice R. Walker</u>. Simulations of DNA-coordinated light emission vs. intramolecular electron transfer: electron donor-acceptor systems with benzo[a]pyrene derivatives. https://chemrxiv.org/engage/chemrxiv/article-details/64ea410c3fdae147fae2cd1b
- Lina Yang, Vishaka Pathiranage, Shihao Zhu, Xiaoting Sun, Cuixin Lai, Chenglei Gu, Fedor Subach, Alice R. Walker, and Kiryl D. Piatkevich. Genetically encoded red fluorescent indicators for imaging intracellular and extracellular potassium ions. Under review.
   https://www.biorxiv.org/content/10.1101/2024.12.20.629597V1
- Hawau Abdulsalam, Mark A. Hix, Livia Philip, Kartikey Singh, <u>Alice R. Walker</u>, and Hien Nguyen. From
  docking and molecular dynamics to experimental discovery: Exploring the hydrophobic landscapes of
  heparanase to design potent inhibitors. Under review.
- Michael Hotor, Joseph Wakpal, Solomon Y. Effah, Nur-E Alom, <u>Alice R. Walker</u>, and Hien Nguyen. Could hydrophobicity of sulfated pseudo-trisaccharides derived from repurposing aminoglycoside tobramycin modulate the enzymatic activity of heparanase in cancer cells? Under review.

Cheng Chen, Jiawei Liu, Ivan M. Myasnyanko, Daniil I. Rudik, Anita H. Adams, <u>Alice R. Walker</u>, Mikhail S. Baranov, and Chong Fang. Meta effect enables redder and larger Stokes shift chromophores by enhanced aromaticity reversal. Under review. Preprint: https://chemrxiv.org/engage/chemrxiv/articledetails/67bda1fffa469535b9dad3c4

- Anita Houston Adams and <u>Alice R. Walker</u>. Simulations of solvent effects on excited state dynamics of *p*-DAPA, a red single benzene-based fluorophore. In preparation. Preprint: https://doi.org/10.26434/chemrxiv-2025-4hcdg
- M. F. Grougan, Mark A. Hix, and <u>Alice R. Walker</u>. Librarian of Alexandria: An extensible LLM-based chemical data extraction pipeline. In preparation. :
- Mfon V. Sunday\*, Ke Ji\*, Derik A. Adams, Weicheng Peng, Sheel C. Dodani, and <u>Alice R. Walker</u>. Physical mechanisms of an unconventional non-canonical green fluorescent protein indicator for chloride. In preparation.
- Jiusheng Lin, Oksana Gerlits, Daniel W. Kneller, Jennifer Clarke, Kevin L. Weiss, Leighton Coates, Mark A. Hix, Solomon Y. Effah, Audrey Kovalevsky, <u>Alice R. Walker</u>, and Mark A. Wilson. Environmental contributions to proton sharing in protein low barrier hydrogen bonds. In preparation.

#### Prior to faculty appointment:

- 10. Joseph E. Thomaz, <u>Alice R. Walker</u>, Stephen J. Van Wyck, Jan Meisner, Todd J. Martínez, and Michael D. Fayer. Proton transfer dynamics in the aprotic proton accepting solvent 1-methylimidazole. *Journal of Physical Chemistry B*, 124(36):7897–7908, September 2020
- 9. <u>Alice R. Walker</u>, Nikhil Baddam, and G. Andrés Cisneros. Unfolding pathways of hen egg-white lysozyme in ethanol. *The Journal of Physical Chemistry B*, 123(15):3267–3271, **2019**
- 8. Hailey L. Gahlon, <u>Alice R. Walker</u>, G. Andrés Cisneros, Meindert H. Lamers, and David S. Rueda. Reduced structural flexibility for an exonuclease deficient DNA polymerase III mutant. *Physical Chemistry Chemical Physics*, 20(40):26892–26902, **2018**
- 7. Nicole Antczak, <u>Alice R. Walker</u>, Hannah R. Stern, Emmett M. Leddin, Carl Palad, Timothy A. Coulther, Rebecca J. Swett, G. Andrés Cisneros, and Penny J. Beuning. Characterization of nine cancer-associated variants in human DNA polymerase κ. *Chemical Research in Toxicology*, 31(8):697–711, 8 **2018**
- 6. Pramodha S. Liyanage, <u>Alice R. Walker</u>, Alfonso Brenlla, G. Andrés Cisneros, Louis J. Romano, and David Rueda. Bulky lesion bypass requires Dpo4 binding in distinct conformations. *Scientific Reports*, 7(1):17383–, 2017
- 5. <u>Alice R. Walker</u> and G. Andrés Cisneros. Computational simulations of DNA polymerases: Detailed insights on structure/function/mechanism from native proteins to cancer variants. *Chemical Research in Toxicology*, 30(11):1922–1935, 11 **2017**
- 4. <u>Alice R. Walker</u>, Pavel Silvestrov, Tina A. Müller, Robert H. Podolsky, Gregory Dyson, Robert P. Hausinger, and G. Andrés Cisneros. ALKBH7 variant related to prostate cancer exhibits altered substrate binding. *PLOS Computational Biology*, 13(2):1–13, 2 2017
- 3. <u>Alice R. Walker</u>, Robin Bonomi, Vadim Popov, Juri G. Gelovani, and G. Andrés Cisneros. Investigating carbohydrate based ligands for galectin-3 with docking and molecular dynamics studies. *Journal of Molecular Graphics and Modelling*, 71:211 217, 2017
- 2. Eric G. Kratz, <u>Alice R. Walker</u>, Louis Lagardére, Filippo Lipparini, Jean Philip Piquemal, and G. Andrés Cisneros. LICHEM: A QM/MM program for simulations with multipolar and polarizable force fields. *Journal of Computational Chemistry*, 37(11):1019–29, 1 2016
- 1. Daniel B. Lawson and <u>Alice Walker</u>. Cycloaddition of ethene on a series of single-walled carbon nanotubes. *Computational and Theoretical Chemistry*, 981:31 37, **2012**

# **Teaching and Mentoring Experience**

College Courses taught at Wayne State University (Detroit, MI) September 2021-present

- Structure and Function of Biomolecules (5600/7600)
- Computational Chemistry (6440/7440)

**Quantum Molecular Design Summer School Instructor** at Stanford University (Stanford, CA), August 2019

**Protein Subgroup Leader**, Martínez Group at Stanford University (Stanford, CA) June 2018-July 2021

**BUILD Program Coordinator and Lecturer** at Wayne State University (Detroit, MI), July 2015/July 2016

**Graduate Teaching Assistant** at Wayne State University (Detroit, MI), Sept. 2013-Aug. 2015 **Student Teacher** at Southfield-Lathrup High School (Southfield, MI), Jan. 2011-April 2011

### **Invited Seminars at Universities**

- 19. North Carolina State, Raleigh, NC, 2025
- 18. Duke University, Durham, NC, 2025
- 17. The University of North Carolina at Chapel Hill, Chapel Hill, NC, 2025
- 16. Akron University, Akron, OH, 2025
- 15. Oakland University, Oakland, MI, 2025
- 14. Texas Tech, Lubbock, TX, 2025
- 13. Georgia State University, Atlanta, GA, 2025
- 12. Bowling Green University, Bowling Green, OH, 2024
- 11. NYU-ECNU Center for Computational Chemistry at NYU Shanghai, Shanghai, China, 2024
- 10. University of Texas-Dallas, Dallas, TX, 2024
- 9. University of Texas-Arlington, Arlington, TX, 2024
- 8. Heinrich Heine University Düsseldorf, Düsseldorf, Germany, 2024
- 7. Youngstown State University, Youngstown, OH, 2023
- 6. Chico State, Chico, CA, 2023
- 5. Aquinas College, Grand Rapids, MI, 2023
- 4. Instituto Tecnológico de Celaya, Celaya, Mexico. December 3, 2021.
- 3. Department of Physics, Wayne State University, Detroit, MI. November 9, 2021.
- 2. Autonomous University of Zacatecas, Zacatecas, Mexico. October 22, 2021.
- 1. University of Michigan-Dearborn Colloquium, Dearborn, MI. September 10, 2021.

# **Conference and Workshop Presentations**

- 25. "Rapid molecular dynamics and docking simulations of functionalized carbohydrate-based ligands." Invited Talk. ACS Fall 2024, Denver, CO. 2024.
- 24. "Excited state dynamics simulations of fluorescent proteins." **Invited Talk**. 42nd Biannual Meeting of the American Society for Photobiology, Chicago, IL. July 2024.
- 23. "Large-scale quantum mechanics simulations of extended electronic effects in ICH Ralstonia." **Invited Talk**. 7th Ringberg Workshop in Structural Biology. Bavaria, Germany. February 2024.

22. "Rapid molecular dynamics and docking simulations of functionalized carbohydrate-based ligands for promising cancer targets heparanase and galectin-3." **Invited Talk**. ACS Fall 2023, San Francisco, CA. 2023.

- 21. "Excited state dynamics simulations of fluorescent proteins." **Invited Talk**. CERM Session: Cellular signaling and respiration. ACS Regional Meeting, Dearborn, MI. 2023.
- 20. "Molecular simulation: Principles and application." **Invited Talk**. COMP Undergraduate Symposium, ACS Spring 2023, Indianapolis, IN. 2023.
- 19. **Invited Talk**. 40 years of exploring potential energy surfaces: a symposium honoring H. Bernhard Schlegel, ACS Fall 2022, Chicaco, IL. 2022.
- 18. Poster. American Conference in Theoretical Chemistry. Olympic Valley, CA, 2022.
- 17. "Ab initio simulations of proton transfer from a photoacid to water." Talk. Fusion of Classicaland Quantum-Mechanical Molecular Simulations Session. Pacifichem 2021 Virtual Congress, Honolulu, HI. December 16, 2021.
- 16. "Mentorship and outreach: women working together in science." **Invited talk**. Women Make COMP: Inspiring the next generation of women in computational chemistry, ACS Fall 2021, Atlanta, GA. August 24, 2021.

#### Prior to faculty appointment:

- 15. "Awarded Long Talk for Outstanding Lightning Talk: Simulations of crystal structure packing effect on green fluorescent protein variant isomerization." Alice R. Walker, Chey Jones, Nanna List, Todd J. Martínez. Talk. Virtual Conference on Theoretical Chemistry, July 2020.
- 14. "Mechanistic insights into photodecarboxylation of fatty acids from classical and QM/MM simulations." Alice R. Walker, T.J. Lane, Henry van den Bedem, Todd J. Martínez. **Talk**. Division of Computers in Chemistry: Women Make COMP, 258th ACS National Meeting, San Diego, CA. August 26, 2019.
- 13. "Mechanistic insights into photodecarboxylation of fatty acids from classical and QM/MM simulations." Alice R. Walker, T.J. Lane, Henry van den Bedem, Todd J. Martínez. Talk. Northern California Theoretical Chemistry Meeting, Berkeley, CA. May 19, 2019.
- 12. "Mechanistic insights into photodecarboxylation of fatty acids from classical and QM/MM simulations." Alice R. Walker, T.J. Lane, Henry van den Bedem, Todd J. Martínez. **Poster**. D. E. Shaw Research Graduate and Postdoc Women's Forum, New York, NY. May 9, 2019.
- 11. "Effects of a single point mutation and mismatched base on DNA polymerase III holoenzyme proofreading." Alice R. Walker, Hailey Gahlon, David Rueda, G. Andrés Cisneros. Talk. Division of Computers in Chemistry: Insights into Structure, Function, Dynamics & Evolution of Enzymatic Mechanisms from Computational Simulation, 255th ACS National Meeting, New Orleans, LA. March 20, 2018.
- 10. "Unfolding of hen egg white lysozyme in high alcohol solutions: Insights from molecular dynamics and IMS-MS." Alice R. Walker, Daniel W. Woodall, Ellen Inutan, Nikhil Baddam, G. Andrés Cisneros, Sarah Trimpin. **Poster**. Division of Computers in Chemistry Poster Session, 255th ACS National Meeting, New Orleans, LA. March 20, 2018.
- 9. "Hot Topic Talk: Unfolding of hen egg white lysozyme in high alcohol solutions: Insights from molecular dynamics and IMS-MS." Alice R. Walker, Daniel W. Woodall, Ellen Inutan, Nikhil Baddam, G. Andrés Cisneros, Sarah Trimpin. **Talk and Poster**. 30th ASMS Sanibel Conference on Mass Spectrometry, St Petersburg, FL. January 27, 2018.
- 8. "ALKBH7 variant related to prostate cancer exhibits altered substrate binding." Alice R. Walker, Pavel Silvestrov, Tina A. Müller, Robert H. Podolsky, Gregory Dyson, Robert P. Hausinger, G. Andrés Cisneros. **Poster**. 6th EU-US Conference on Repair of Endogenous DNA Damage, University of Udine, Udine, Italy. September 26/27, 2017.
- 7. "ALKBH7 variant related to prostate cancer exhibits altered substrate binding." Alice R. Walker, Pavel Silvestrov, Tina A. Müller, Robert H. Podolsky, Gregory Dyson, Robert P. Hausinger, G. Andrés Cisneros. **Poster**. Division of Computers in Chemistry Poster Session, 253rd ACS National Meeting, San Francisco, CA. April 4, 2017.

6. "ALKBH7 variant related to prostate cancer exhibits altered substrate binding." Alice R. Walker, Pavel Silvestrov, Tina A. Müller, Robert H. Podolsky, Gregory Dyson, Robert P. Hausinger, G. Andrés Cisneros. Poster. Graduate Student Research Symposium, Texas Women's University, Denton, TX. March 31, 2017.

- "GPU-enabled binding free energy calculations of potential ligands for pancreatic cancer imaging." Alice R. Walker, Robin Bonomi, Juri Gelovani, G. Andrés Cisneros. Poster. Division of Computers in Chemistry Poster Session, 251st ACS National Meeting, San Diego, CA. March 16, 2016.
- 4. "Computational studies on potential PET imaging ligands for Galectin-3 in pancreatic cancer tumors." Alice R. Walker, Robin Bonomi, Juri Gelovani, G. Andrés Cisneros. **Poster**. Division of Computers in Chemistry Poster Session, 250th ACS National Meeting, Boston, MA. August 18, 2015.
- 3. "Computational Studies on Potential Ligands for Imaging Cancer Tumors and Examination of Dealkylation Mechanism of AlkBH2." Alice R. Walker, G. Andrés Cisneros. Talk. Second year seminar at Wayne State University. February 25, 2015.
- 2. "Computational Studies of Inhibitors for Galectin-3." Alice R. Walker, G. Andrés Cisneros. **Poster**. Wayne State University 16th Annual Chemistry Graduate Research Symposium, Detroit, MI. October 11 2014.
- 1. "Binding of Ethene to Carbon Nanotubes." Alice R. Walker, Daniel B. Lawson. **Talk**. 20th Annual Argonne Undergraduate Research Symposium, Argonne, IL. November 13, 2009.

## University, Campus and Departmental Service

NOBCChE Coadviser (2023-present)

**ChatGPT Committee Chair** (2023)

MARC Mentor (2022-present)

C&IT Liasion Team (2021-present)

WSU Research Technology Advisory Council (2022-present)

Gopal Symposium Planning Committee (2021-present)

Seminar Committee (2021-2022)

Faculty Hiring Rubric Committee (2021-2022)

Graduate Admissions Committee (2021-2024)

#### **Public and Professional Service**

**Journal referee** (20 reviews per year) (including Electronic Structure, Chemical Science, Computational and Structural Biochemistry, ChemBioChem, J Comp Biophys Chem, Angewandtie Chemie Int Ed, Journal of Physical Chemistry Letters, Journal of Cheminformatics, Journal of Chemical Information and Modeling)

**Project SEED Mentor** (American Chemical Society)

Co-organizer for Midwest Theoretical Chemistry Conference, 2025

Reviewer for Department of Energy, Basic Energy Sciences FOA for Accelerated, Inclusive Research

**Early Career Reviewer** for National Institutes of Health (MSFB)

Ad Hoc Reviewer for National Institutes of Health (MBBC-10, SBIR/STTR, MRAB ESI MIRA)

Reviewer for US-Egypt Science and Technology Joint Fund

MARC Mentor (WSU), 2021-present

Volunteer for career planning assistance (2021-present)

**Poster Judge** for undergraduate posters at ANACHEM Symposium (2021)

ACS Graduate School Fair at ACS Spring 2022 in San Diego, CA (2022)

WSU ACS Pride Month Event Speaker (June 26, 2022)

ACTC Session Chair (July 2022)

Organizer for Regional ACS Midwest 2-day symposium (October 2022-May 2023)

Poster Judge for Wayne State University Chemistry Graduate Research Symposium (2022)

Girl Scouts Women in Science Day (January 2023)
WSU ACS Pride Month Event Panelist (June 26, 2023)
MARC LGBTQIA+ Panelist (December 1, 2023)

## **Professional Organizations & Development**

Association for Women in Science (November 2018-present)
Software Summer School at Virginia Tech (June 2015)
NVDIA CUDA qwiklabs (April 2015)
American Chemical Society, Member (January 2015-present)
AGEP Seminar Series (January 2015-September 2016)
STEM Pedagogy Seminar Series (September 2014-September 2016)
BEST Professional Development Program (September 2014-September 2016)

Last updated: May 10, 2025