

Aubrey L. Frantz

Curriculum Vitae

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EDUCATION

2012 **Ph.D. Microbiology, Immunology and Molecular Genetics**
University of Kentucky College of Medicine, Lexington KY

2007 **B.A. Chemistry and Biology**
University of Kentucky, Lexington KY

PROFESSIONAL POSITIONS

2024 – Present **Associate Professor of Biology**
Department of Natural Sciences
University of North Texas at Dallas

2018 – 2024 **Assistant Professor of Biology**
Department of Natural Sciences
University of North Texas at Dallas

2013 – 2018 **Lecturer of Biology**
Department of Life and Health Sciences
University of North Texas at Dallas

2012 – 2013 **Full-Time Adjunct Professor**
Department of Life and Health Sciences
University of North Texas at Dallas

2009 – 2010 **Graduate Teaching Assistant**
Department of Microbiology, Immunology and Molecular Genetics
University of Kentucky College of Medicine

2007 – 2012 **Graduate Research Assistant**
Department of Microbiology, Immunology and Molecular Genetics
University of Kentucky College of Medicine

2005 – 2007 **Laboratory Technician**
Department of Microbiology, Immunology and Molecular Genetics
University of Kentucky College of Medicine

RELATED PROFESSIONAL EXPERIENCE

2018 – Present **Assistant Dean of Liberal Arts and Sciences**
School of Liberal Arts and Sciences
University of North Texas at Dallas

2021– 2023	NAIA Senior Woman Leader (SWL)
2023 – Present	Faculty Athletics Representative (FAR) UNT Dallas Department of Athletics University of North Texas at Dallas
2014 – 2019	Program Coordinator for the Department of Life and Health Sciences Department of Life and Health Sciences University of North Texas at Dallas
2017– 2018	UNT Dallas Strategic Plan Project Manager University of North Texas at Dallas

PUBLICATIONS

Pena, S.A.; Salas, J.G.; Gautam, N.; Ramos, A.M.; **Frantz, A.L.** Sublethal Exposure to Common Benzalkonium Chloride Leads to Antimicrobial Tolerance and Antibiotic Cross-Resistance in Commensal and Opportunistic Bacterial Species. *Appl. Microbiol.* **2023**, *3*, 580-591. <https://doi.org/10.3390/applmicrobiol3020041>

Frantz, A.L. Probiotic-Based Sanitation in the Built Environment. Encyclopedia. Available online: <https://encyclopedia.pub/entry/45666>

Frantz, A.L. Chronic quaternary ammonium compound exposure during the COVID-19 pandemic and the impact on human health. *Toxicol. Environ. Health Sci.* **2023**, 1-8. <https://doi.org/10.1007/s13530-023-00173-w>

Ramos, A.M.; **Frantz, A.L.** Probiotic-Based Sanitation in the Built Environment—An Alternative to Chemical Disinfectants. *Appl. Microbiol.* **2023**, *3*, 536-548 <https://doi.org/10.3390/applmicrobiol3020038>

Mehta, A.; Finn, K.; and **Frantz, A.** The Effect of Dietary Products with Estrogenic Properties on Breast Cancer in Women Over 50. *Journal of Student Research* **2021**, *10*, <https://doi.org/10.47611/jsrhs.v10i2.1592>

Frantz A.L. Maternal and Newborn Health Concerns in a Growing Urban Population. In: Farazmand A. (eds) *Global Encyclopedia of Public Administration, Public Policy, and Governance*. Springer, Cham. **2021**, 1-11, https://doi.org/10.1007/978-3-319-31816-5_4074-1

Carter, W.; King, B.; Muhammed, M.; Valverde, V.; **Frantz, A.L.** *In vitro* effects of dietary nitrate on the human gut microbiota. Danika Martirosyan and Smiti Gupta. *Functional Foods, Bioactive Compounds and Nutraceuticals in Health and Disease*. Food Science Publisher. **2019**, *26*, 44-46 ISBN: 9781095227091

Rogier, E.W.; **Frantz, A.L.**; Bruno, M.E.; Wedlund, L.; Cohen, D.A.; Stromberg, A.J.; Kaetzel, C.S. Lessons from mother: Long-term impact of antibodies in breast milk on the gut microbiota and intestinal immune system of breastfed offspring. *Gut Microbes* **2014**, *5*, 663-668, DOI [10.4161/19490976.2014.969984](https://doi.org/10.4161/19490976.2014.969984).

Rogier, E.W.; **Frantz, A.L.**; Bruno, M.E.C.; Kaetzel, C.S. Secretory IgA is Concentrated in the Outer Layer of Colonic Mucus along with Gut Bacteria. *Pathogens* **2014**, *3*, 390-403, DOI [10.3390/pathogens3020390](https://doi.org/10.3390/pathogens3020390).

Rogier, E.W.; **Frantz, A.L.**; Bruno, M.E.C.; Wedlund, L.; Cohen, D.A.; Stromberg, A.J.; Kaetzel, C.S. Secretory antibodies in breast milk promote long-term intestinal homeostasis by regulating the gut microbiota and host gene expression. *Proc Natl Acad Sci U S A* **2014**, *111*, 3074-3079, DOI 10.1073/pnas.1315792111.

Frantz AL, Rogier EW, Weber CR, Shen L, Cohen DA, Fenton LA, Bruno ME, Kaetzel CS. Targeted deletion of MyD88 in intestinal epithelial cells results in compromised antibacterial immunity associated with the down-regulation of polymeric immunoglobulin receptor, mucin-2 and antibacterial peptides. *Mucosal Immunol.* **2012**, *5*, 501-12, DOI 10.1038/mi.2012.23.

Frantz, A.L.; Bruno, M.E.C.; Rogier, E.W.; Tuna, H.; Cohen, D.A.; Bondada, S.; Chelvarajan, R.L.; Brandon, J.A.; Jennings, C.D.; Kaetzel, C.S. Multifactorial patterns of gene expression in colonic epithelial cells predict disease phenotypes in experimental colitis. *Inflamm Bowel Dis* **2012**, *18*, 2138-2148, DOI 10.1002/ibd.22923.

Cai, W.; Rudolph, J.L.; Harrison, S.M.W.; Jin, L.; **Frantz, A.L.**; Harrison, D.A.; Andres, D.A. An evolutionarily conserved Rit GTPase-p38 MAPK signaling pathway mediates oxidative stress resistance. *Mol Biol Cell* **2011**, *22*, 3231-3241, DOI 10.1091/mbc.E11-05-0400.

Bruno, M.E.C.; **Frantz, A.L.**; Rogier, E.W.; Johansen, F.-.; Kaetzel, C.S. Regulation of the polymeric immunoglobulin receptor by the classical and alternative NF- κ B pathways in intestinal epithelial cells. *Mucosal Immunol* **2011**, *4*, 468-478, DOI 10.1038/mi.2011.8.

Bruno, M.E.C.; Rogier, E.W.; **Frantz, A.L.**; Stefka, A.T.; Thompson, S.N.; Kaetzel, C.S. Regulation of the polymeric immunoglobulin receptor in intestinal epithelial cells by Enterobacteriaceae: implications for mucosal homeostasis. *Immunol Invest* **2010**, *39*, 356-382, DOI 10.3109/08820131003622809.

ACADEMIC PRESENTATIONS

Chung, I., and **Frantz, AL.** (April 2025) Bacteriophage-Based Sanitation: Evaluating, Efficacy, Stability and Integration in Built Environments. Poster presented at the *University of North Texas at Dallas Undergraduate Research Symposium*, Dallas, TX.

Del Villar, T., Salazar, P., Pasallo-Martinez, A., Bueso, A., Puentes, X., Johnson, P., Torres, V., and **Frantz, AL.** (April 2025) Reduced Sensitivity and Increased Tolerance to Alkyltrimethylammonium Bromide Compounds in Gram-Negative Pathogens. Poster presented at the *University of North Texas at Dallas Undergraduate Research Symposium*, Dallas, TX.

Chung, I., and **Frantz, AL.** (July 2024) Exploring Bacteriophages as Potential Supplements to Chemical Disinfectant in Built Environments. Presentation presented at the *McNair Summer Undergraduate Research Conference*, Baylor University, Waco, TX.

Chung, I., and **Frantz, AL.** (May 2024) Exploring Bacteriophages as Potential Supplements to Chemical Disinfectant in Built Environments. Poster presented at the *May 2024 UNT System Board of Regents Meeting*, University of North Texas at Dallas, Dallas, TX.

Salas, JG., Torres, VM., and **Frantz, AL.** (April 2024) Persistent Exposure to Subinhibitory Levels of Alkyltrimethylammonium Bromide Compounds Reduce Bacterial Sensitivity and Promote Antibiotic Cross-Tolerance. Poster presented and the *National Conference of Undergraduate Research (NCUR)*, Long Beach, CA.

Torres, VM., Salas, JG., Cazares, JE., Sajeeth, H., Ellzey, KM., Smith, SL., and **Frantz, AL** (April 2024). Exposure to Subinhibitory Levels of Alkyltrimethylammonium Bromide Compounds Reduce Bacterial Sensitivity and Promote Antibiotic Cross-Tolerance in Opportunistic Pathogens of The Human Skin Microbiota. Poster presented at the *University of North Texas at Dallas Undergraduate Research Symposium*, Dallas, TX.

Chung, I., and **Frantz, AL**. (April 2024) Exploring Bacteriophages as Potential Supplements to Chemical Disinfectant in Built Environments. Poster presented at the *University of North Texas at Dallas Undergraduate Research Symposium*, Dallas, TX.

Pena, S., Rivera, P., Ramos, A., Fanousi, Motta, Y., Gomez, G., and **Frantz, AL**. (April 2023) Exposure to Sublethal Cetyltrimethylammonium Bromide Concentrations Leads to Antimicrobial Tolerance and Antibiotic Resistance. Poster presented at the *Texas Undergraduate Research Day*, Austin, TX.

Frantz, AL. Rivera, P., Pena, S. Ramos, Fanousi, S., A, Motta, Y., Gomez. G. (November 2022) Chronic Exposure to Quaternary Ammonium Compounds Leads to the Development of Antimicrobial Tolerance and Antibiotic Resistance in Species of the Human Skin Microbiota. Poster presented at the *Rust Belt Microbiome Conference*, Pittsburgh PA.

Frantz, AL. Rivera, P., Motta, Y., Gomez. G. and Yousufuddin, M. (July 2022) Development of tolerance to quaternary ammonium compounds in the human skin microbiota. Poster presented at the *International Congress of Mucosal Immunology*, Seattle, WA.

Frantz, AL. Rivera, P., Motta, Y., Gomez. G. and Yousufuddin, M. (June 2022) Development of antimicrobial resistance to quaternary ammonium compounds in the human skin microbiota. Oral presentation and poster presented at the *International Conference on Applied Microbiology*. Virtual Event.

Rivera, P. and **Frantz, AL**. (April 2022) Effect of Alkyl Carbon Chain Length of Quaternary Ammonium Compounds on the Human Skin Microbiota. Poster presented at *UNTD Student Research Symposium*, University of North Texas at Dallas, Dallas, TX

Frantz, AL., (November 2019) *In vitro* effects of dietary nitrates on pathogenic, probiotic and commensal bacterial species of the human gut microbiota. Presented at *Rust Belt Microbiome Conference*, Carnegie Mellon University, Pittsburgh, PA.

Valverde V., Carter W., King B., Muhammed M. and **Frantz AL**. (November 2019) *In vitro* effects of dietary nitrates on the human gut microbiota. Poster presented at *Annual Biomedical Research Conference for Minority Students (ABRCMS)*, Anaheim, CA.

Carter, W., King, B., Muhammed, M., Valverde, V. and **Frantz AL**. (July 2019) *In vitro* effects of dietary nitrate on the human gut microbiota. Poster presented at *SAEOPP McNair Scholar's Research Conference*, Atlanta, GA.

Frantz AL. (May 2019) *In vitro* effects of dietary nitrates on the human gut microbiota. Presented at *26th International Conference of the American Society of Functional Foods and Bioactive Compounds*, San Diego, CA.

Carter, W., King, B., Muhammed, M., Valverde, V. and **Frantz AL**. (April 2019) *In vitro* effects of dietary nitrate on the human gut microbiota. Poster presented at *UNT Dallas Student Research Symposium*, Dallas, TX.

Carter, W., King, B., Muhammed, M., Valverde, V. and **Frantz AL.** (April 2019) The effects of sodium nitrate on the human gut microbiota. Poster presented at *Annual Translational Microbiome Conference*, Boston, MA

Rowan E., Gomez G., Mendoza J. and **Frantz AL.** (April 2019) The Effects of Quaternary Ammonium Compounds on the Human Skin Microbiota. Poster presented at *Texas Tech University Student Research Symposium*, Texas Tech University, Lubbock, TX.

Gustavo, G., **Frantz AL.** and Yousufuddin, M (April 2019) Effects of Quaternary Ammonium Compounds on the human skin microbiota. Poster Presented at *American Chemical Society Meeting in Miniature*, University of North Texas, Denton, TX.

Mata, B. and **Frantz AL.** (October 2018) The Effects of Soap Lipids on the Composition of the Skin Microbiota. Poster presented at *Florida International University STEM Research Conference*, Florida International University, Miami, FL.

Frantz AL. (July 2018) *Redesigning the First Year Biology Research Paper*. Poster presented at *American Association of State Colleges and University's (AASCU) Academic Affairs Summer Meeting*. Seattle, WA.

Frantz AL. (May 2018) *Redesigning the First Year Biology Research Paper*. Poster presented at *High Impact Practices Teaching Symposium*, University of North Texas at Dallas, Dallas TX.

Rowan E., Gomez G., Mendoza J. and **Frantz AL.** (April 2018) The Effects of Quaternary Ammonium Compounds on the Human Skin Microbiota. Poster presented at *UNTD Student Research Symposium*, University of North Texas at Dallas, Dallas, TX

Perez J. and **Frantz AL.** (April 2017) The Development of Antimicrobial Resistance in Human Bacterial Communities. Poster presented at *UNTD Student Research Symposium*, University of North Texas at Dallas, Dallas, TX

Lopez M., Torres M., Yanez B., Hamilton DE, and **Frantz AL.** (April 2016) The Effects of a Common Food Emulsifier on the Composition of the Human Oral Microbiota. Poster presented at *UNTD Student Research Symposium*, University of North Texas at Dallas, Dallas, TX.

Frantz AL. (November 2015) Creating Engaging, Hands-on STEM Activities for Middle School. Workshop Presentation at *Conference for the Advancement of Science Teaching*, Fort Worth, TX.

Frantz AL. (August, 2012) The role of intestinal epithelial cells and the regulation of the polymeric immunoglobulin receptor in homeostasis and inflammation. Seminar present at *Host-Microbial Interaction Symposium*, Vanderbilt University, Nashville, TN. Guest Seminar Speaker.

Frantz AL. (July, 2012) The role of intestinal epithelial cells and the regulation of the polymeric immunoglobulin receptor in homeostasis and inflammation. Seminar present at *Immunology Musings*, University of Texas Southwestern, Dallas, TX

Frantz AL, Rogier EW, Bruno ME and Kaetzel CS (July 2011) Intestinal Epithelial Cell-Specific MyD88 Signaling Promotes Homeostasis by Regulating Expression of the Polymeric Immunoglobulin Receptor.

Oral presentation and poster presentation at *International Congress of Mucosal Immunology*, Pasteur Institute, Paris, France.

Frantz AL, Rogier EW, Ellis G, Kurkijun C, Arsenescu R and Kaetzel CS. (March 2011) Down-regulation of the polymeric immunoglobulin receptor in ulcerative colitis and in experimental murine colitis-associated cancer. Poster presented at *University of Kentucky Cancer Research Day*, University of Kentucky, Lexington KY.

Frantz AL, Bruno ME, Bondada S, Cohen D and Kaetzel CS. (November 2010) Signature biomarkers in Crohn's disease predict phenotypes in mouse models of colitis. Presented at *Autumn Immunology Conference*, Chicago, IL.

Frantz AL, Bruno ME, Bondada S, Cohen D and Kaetzel CS. (August 2010) Signature biomarkers in Crohn's disease predict phenotypes in mouse models of colitis. Poster presented at *University of Kentucky Cancer Research Day*, University of Kentucky, Lexington KY.

Frantz AL, Rogier EW, Bruno ME and Kaetzel CS (November 2009) Induction of the Polymeric Immunoglobulin Receptor by Colonic Bacteria through TLR-Dependent Activation of NF- κ B. Presented at *Autumn Immunology Conference*, Chicago, IL.

Frantz AL, Rogier EW, Bruno ME and Kaetzel CS (July 2009) Induction of the Polymeric Immunoglobulin Receptor by Colonic Bacteria through TLR-Dependent Activation of NF- κ B. Poster presented at *International Congress of Mucosal Immunology*, Boston, MA.

Frantz AL, Rogier EW, Bruno ME and Kaetzel CS (November 2008) Differential responses of intestinal epithelial cells and monocytes to commensal bacteria. Presented at *Autumn Immunology Conference*, Chicago, IL.

Frantz AL, Rogier EW, Bruno ME and Kaetzel CS (October 2008) The Role of MyD88-Dependent Toll-like Receptor Signaling in Intestinal Inflammation. Poster presented at *University of Kentucky Cancer Research Day*, University of Kentucky, Lexington KY.

GRANT SUBMISSIONS

Center for Socioeconomic Mobility through Education (CSME)

Title: Biomarker Expression of Stress and Tension Induced by Entertainment

PI/Co-PI: Aaron Bartula and Aubrey Frantz

Projected Funding: \$6,040

Project: November 2024 – May 2025

Submitted: October 2024 - Awarded

National Institutes of Health (NIH)

Title: *Synthesis and characterization of quaternary ammonium compounds and their in vitro effects on the human skin microbiota.*

Type of Application: 1R15AI164344-01

PI/Co-PI: Muhammed Yousufuddin and **Aubrey Frantz**

Projected Funding: \$368,573

Proposed Project: 07/01/2024 – 06/30/2027

Submitted: February 25, 2024; reviewed June 2024 – *not awarded*

National Institutes of Health (NIH)

Title: *Synthesis and characterization of quaternary ammonium compounds and their in vitro effects on the human skin microbiota.*

Type of Application: 1R15AI164344-01 Resubmission

PI/Co-PI: Muhammed Yousufuddin and **Aubrey Frantz**

Projected Funding: \$368,573

Proposed Project: 07/01/2022 – 06/30/2025

Submitted: October 25, 2021; reviewed March 2022 – *not awarded*

COURSES TAUGHT

Anatomy & Physiology I	Environmental Science
Anatomy & Physiology I Laboratory	Environmental Science Laboratory
Anatomy & Physiology II	Mentored Undergraduate Research
Anatomy & Physiology II Laboratory	Microbiology
Biology I for Majors	Microbiology Laboratory
Biology I Laboratory	Medical Microbiology Laboratory*
Biology II for Majors	Molecular Biology *
Biology II Laboratory	Biology of Disease *
Biochemistry & Molecular Biology of the Gene	Special Topics in Molecular Biology
Cell Biology	Special Topics in Immunology

(* denotes course taught at the graduate level)

HONORS and AWARDS

- **UNT Faculty Teaching Award (AY 2023-2024)**
- **UNT Faculty Research Award (AY 2022-2023)**
- University of North Texas at Dallas – Outstanding Undergraduate Researcher Award (2nd Place) (Faculty Advisor), April 2024
- University of North Texas at Dallas – Outstanding Undergraduate Researcher Award (3rd Place) (Faculty Advisor), April 2024
- Faculty Advisor – selected presentation at the Texas Undergraduate Research Day at the Capitol: Transforming Texas Through Undergraduate Research – April 2023.
- University of North Texas at Dallas – Outstanding Undergraduate Researcher Award (Faculty Advisor), April 2022
- UNT Faculty Service Award (AY 2020-21) Nominee
- UNT Outstanding Trailblazer Award – October 2019
- ABRCMS Research Conference – Outstanding Poster Presentation (November 2019)
- SAEOPP McNair Scholar's Research Conference – 2nd Place Poster Presentation
- UNT Outstanding Trailblazer Award – May 2019
- University of North Texas at Dallas – 2nd Place Poster Presentation at the UNT Dallas Undergraduate Research Symposium (Faculty Advisor), April 2019
- University of North Texas at Dallas – People's Choice Poster Presentation at the UNT Dallas Undergraduate Research Symposium (Faculty Advisor), April 2019
- University of North Texas at Dallas – 1st Place Poster Presentation at the UNT Dallas Undergraduate Research Symposium (Faculty Advisor), April 2018

- University of North Texas at Dallas – 1st Place Poster Presentation at the UNT Dallas Undergraduate Research Symposium (Faculty Advisor), April 2017
- University of North Texas at Dallas – 2016 Faculty Alliance Award for Excellence in Service,
- University of North Texas at Dallas – 1st Place Poster Presentation at the UNT Dallas Undergraduate Research Symposium (Faculty Advisor), April 2016
- University of Kentucky Dissertation Year Fellowship, January 2012- May 2012
- University of Kentucky Graduate Student Travel Award, July 2011
- University of Kentucky Opportunity Fellowship, August 2010 – August 2011
- University of Kentucky Opportunity Fellowship, August 2009 – August 2010
- International Congress of Mucosal Immunology Travel Award , July 2009
- University of Kentucky Graduate Student Travel Award, June 2009
- University of Kentucky Opportunity Fellowship, August 2008 – August 2009
- University of Kentucky Graduate School Academic Fellowship, August 2007 – August 2008

LEADING UNIVERSITY SERVICE & PROFESSIONAL DEVELOPMENT

- **UNTD Center for Innovation, Teaching and Learning (CITL) Advisory Board** (2025 – present)
- **UNTD STEM Building Furniture Committee**, 2024 – Present.
- **UNTD STEM Building Steering Committee**, 2022 – Present.
- **UNM Mentorship Conference, 2024**
- **Senior Woman Administrator** (Senior Woman Leader (SWL)) for UNTD Athletics, 2021- 2023.
- **UNT Faculty Athletic Representative** for UNTD student-athletes, 2023 - Present
- **Faculty Mentor**, BAT-LSAMP Scholars Program, UNT Dallas 2022 – Present.
- **Faculty Mentor**, McNair Scholars Program, UNT Dallas, 2018 - Present.
- **Undergraduate Research Advisor**, UNT Dallas, 2016 - Present.
- **Athletics Compliance Team**, UNTD Athletics, 2023 - Present
- **Athletics Advisory Committee** for UNTD Athletics, 2020 – Present.
- Chair of LAS Strategic Planning Teaching and Student Success Subcommittee, 2022 – 2023.
- UNTD Competency Based Education – Community of Practice on Alternative Pedagogies, Spring 2022 – present.
- Faculty Mentor for LAS Faculty Mentorship Program, UNT Dallas, 2020 – 2022.
- Life and Health Sciences Assessment Coordinator, UNT Dallas, 2014 – 2019
- Chair of the School of Liberal Arts and Sciences Curriculum Committee, UNT Dallas, 2017.
- UNT Dallas Secretary of the Faculty Alliance, UNT Dallas 2016 - 2017
- UNTD Athletics Committee and UNTD Athletics Handbook Committee, UNT Dallas, 2020 – present
- High Impact Practices Teaching Committee and the Re-imagining the First Year Curriculum Committee, 2018 –2019.
- Science Instructor for Girls Inc. Eureka! Summer STEM camp at UNTD, 2016 – 2019.
- Completion of the “Effective Teaching Practices” course from the Association of the College and University Educators (ACUE) and the American Council on Education - 2016.
- Participation in the American Society of Biochemistry and Molecular Biology Workshop (ASBMB) “Developing and Sharing Best Practices: From Concept to Classroom.” University of Texas Southwestern Medical Center, 2016.
- Faculty Advisor for the UNTD Environmental Club student organization, 2013 – 2017.

COMMUNITY OUTREACH & PUBLIC ENGAGEMENT

- UNT Health Science Center Research Appreciation Day Judge (UNTHSC RAD 2022 and 2023)
- LAS Critical Issues Forum – *Contextualizing Vaccination: A Dialogue on COVID-19 and Implications for Public Health* – served on committee to organize the event and served as event moderator.
- Expert Advisor for Highland Park ISD Senior Capstone Research students (2021 – 2022)
- State Fair of Texas Science Fair Judge (2019, 2022 and 2023) – served as final round judge for the State of Texas Science Fair at the State Fair of Texas.
- Uplift Wisdom Academy Science Fair Judge (December 2019) – judge for all 4th – 6th grade science fair projects.
- JAG 360, True Blue and Jaguar Preview Day events at UNT Dallas – Regularly represent the Life & Health Science Department at UNTD recruiting events each semester.
- Organized the 2018 UNTD Women’s Health Panel, *Exploring Women’s Health Across the Lifespan* and served as panel facilitator.
- Sunset High School Pre-Summer Bridge Program – Developed and instructed public health related activities for high school students in the Early College High School Program at Sunset High School each summer.
- National Public Health Week Steering Committee – organized on and off campus events for NPHW 2016 and 2017.
- Guest Speaker at Sunset High School’s Medical Explorers Club – discussed pathways and career opportunities in the medical and health-related fields.
- Girls Inc. Eureka STEM Summer Camp – Develop and instruct hands-on STEM activities for at risk middle school girls participating in the Girls Inc. summer camp at UNT Dallas each summer.
- Expert Contributor for WFAA TV’s Verify news segment, *Verify: Is Carbonated Water Healthy?* June 2017.
- Trinity River Mission STEM Night – represented UNTD and discussed the degree pathways and career opportunities in the Life and Health Sciences.
- DISD High School STEM night - represented UNTD and discussed the degree pathways and career opportunities in the Life and Health Sciences.
- Expert Panelist at the Zika Town Hall event at the University of North Texas at Dallas
- Mentor and Science Fair Judge at Kennemer Middle School’s (Duncanville ISD) “Mars Colonization” Project

PROFESSIONAL SERVICE

- Review Editor for the journal *Frontiers in Immunology* (2023 – Present)

PROFESSIONAL MEMBERSHIPS

- Council of Colleges of Arts & Sciences (CCAS)
- Beta Beta Beta (Tri Beta) National Biological Honor’s Society
- Society of Mucosal Immunology (SMI)
- American Society of Functional Foods and Bioactive Compounds (ASFFBC)
- American Society of Biochemistry and Molecular Biology (ASBMB)
- Association of College and University Educators (ACUE)