

**Jacob H Elnaggar, PhD**  
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## **Education**

2018 – Current	Louisiana State University Health Science Center, New Orleans, LA School of Medicine & Graduate Studies – Department of Microbiology, Immunology, and Parasitology, M.D./Ph.D. candidate (Anticipated May 2026)
2020 – 2024	MD Anderson Cancer Center, Houston, TX Department of Radiation Oncology Graduate Student (non-UTHSCH)
2014 – 2018	Baylor University, Waco, TX Major: Bioinformatics, <i>Magna Cum Laude</i>

## **Research Experience**

05/2018 – Present	MD/PhD candidate, LSUHSC, New Orleans, LA <ul style="list-style-type: none"><li>• Obtained a PhD in Microbiology and Bioinformatics in the Dr. Christopher Taylor Lab</li><li>• Dissertation title: <i>Investigating the temporal dynamics of the vaginal microbiome prior to incident bacterial vaginosis.</i></li><li>• Hybridizing molecular and computational techniques to discover and model changes in bacterial abundance prior to BV</li></ul>
06/2020 – 05/2024	Joint appointed graduate student at MD Anderson Cancer Center, Houston, TX <ul style="list-style-type: none"><li>• Working in the Dr. Lauren Colbert Lab to understand the relationship between the human microbiome and cancer growth and treatment response.</li><li>• My project investigated cervical dysbiosis and its relationship with the progression of HPV derived cervical dysplasia to cancer.</li></ul>
05/2017 – 08/2017	Student Researcher, MD Anderson Cancer Center, Houston, TX <ul style="list-style-type: none"><li>• Summer research experience in the Anil Korkut Lab</li><li>• Modeled adaptation and response mechanisms to improve treatment in BRAF inhibitor-resistant melanoma</li></ul>
05/2016 – 08/2016	Student Researcher, LSUHSC, New Orleans, LA <ul style="list-style-type: none"><li>• Summer research experience in the Chindo Hicks Lab</li><li>• GWAS study to determine genetic markers that predispose African American women to triple-negative breast cancer.</li></ul>
05/2015 – 08/2015	Student Researcher, LSUHSC, New Orleans, LA <ul style="list-style-type: none"><li>• Summer research experience in the Liz Simon/Patricia Molina Lab</li><li>• Investigated the combined effects of chronic binge alcohol administration and simian immunodeficiency virus on cell apoptosis in the prefrontal cortex of rhesus macaques.</li></ul>
01/2015 – 05/2015	Student Researcher, Baylor University, Waco, TX <ul style="list-style-type: none"><li>• Research experience in the Marty Harvill Lab</li><li>• Tested soil quality of the Lake Waco Wetlands for human consumption</li></ul>

## **Intellectual property**

1. **U.S. Patent Application No. 63/778,989, Predicting Bacterial Vaginosis Development Using Artificial Neural Networks**, filed March 27, 2025. Inventors: **Jacob Elnaggar**, Christopher Taylor, John Lammons, Christina Muzny.

## **Publications**

1. George SD, Amerson-Brown MH, Sousa LGV, Rinehart AH, Tamhane A, Riegler AN, Leal SM, Lammons JW, **Elnaggar JH**, Graves KJ, Łaniewski P, Herbst-Kralovetz MM, Taylor CM, Cerca N, Muzny CA. Spatial organization of *Gardnerella species*, *Prevotella bivia*, and *Fannyhessea vaginiae* in the bacterial vaginosis biofilm. *American Society for Microbiology – Infection and Immunity* (2026-01-20). doi:[10.1128/iai.00630-25](https://doi.org/10.1128/iai.00630-25)
2. George SD, Amerson-Brown MH, Sousa LGV, Carter TM, Rinehart AH, Riegler AN, Leal SM, Aaron KJ, Tamhane A, Dong C, Lammons JW, **Elnaggar JH**, Graves KJ, Łaniewski P, Herbst-Kralovetz MM, Taylor CM, Cerca N, Muzny CA. Investigating Bacterial Vaginosis Pathogenesis Using Peptide Nucleic Acid-Fluorescence in situ Hybridization with a Focus on the Roles of *Gardnerella species*, *Prevotella bivia*, and *Fannyhessea vaginiae*. *Open Forum Infectious Diseases* (2025-08-27). doi:[10.1093/ofid/ofaf556](https://doi.org/10.1093/ofid/ofaf556)
3. **Elnaggar JH**, Lammons JW, Ardizzone C, Aaron KJ, Jacobs C, Graves KJ, George SM, Luo M, Tamhane A, Łaniewski P, Quayle AJ, Herbst-Kralovetz M, Cerca N, Muzny CA, Taylor CM. Predicting Bacterial Vaginosis Development using Artificial Neural Networks. *medRxiv*. (2025-05-05). doi:[10.1101/2025.05.02.25326872](https://doi.org/10.1101/2025.05.02.25326872), PMID: 40385447; PMCID: PMC12083586.
4. Van Gerwen OT, Aaron KJ, Kay ES, Siwakoti K, Pontius A, Richter S, Sherman ZA, Graves KJ, Tamhane A, **Elnaggar JH**, Luo M, Toh E, Nelson D, Van Wagoner NJ, Taylor CM, Muzny CA. The Impact of Testosterone Therapy on the Vaginal Microbiota of Transgender Men and Non-Binary People: A Prospective Study. *The Journal of Infectious Diseases* (03-03-2025). doi:[10.1093/infdis/jiaf114](https://doi.org/10.1093/infdis/jiaf114), PMID: 40037329
5. Kim GJ, **Elnaggar JH**, Varnado M, Feehan AK, Tauzier D, Rose R, Lamers SL, Sevalia M, Nicholas N, Gravois E, Fort D, Crabtree JS, Miele L. A bioinformatic analysis of T-cell epitope diversity in SARS-CoV-2 variants: association with COVID-19 clinical severity in the United States population. *Front Immunol*. (2024-05-09). doi:[10.3389/fimmu.2024.1357731](https://doi.org/10.3389/fimmu.2024.1357731), PMID: 38784379, PMCID: PMC11112498
6. George SD, Van Gerwen OT, Dong C, Sousa LGV, Cerca N, **Elnaggar JH**, Taylor CM, Muzny CA. The Role of *Prevotella* Species in Female Genital Tract Infections. *Pathogens* (2024-04-26). doi:[10.3390/pathogens13050364](https://doi.org/10.3390/pathogens13050364), PMID: 38787215, PMCID: PMC11123741 (Featured as cover article)
7. Muzny CA, **Elnaggar JH**, Sousa LGV, Lima Â, Aaron KJ, Eastlund IC, Graves KJ, Dong C, Van Gerwen OT, Luo M, Tamhane A, Long D, Cerca N, Taylor CM. Microbial interactions among *Gardnerella*, *Prevotella* and *Fannyhessea* prior to incident bacterial vaginosis: protocol for a prospective, observational study. *BMJ Open* (2024-02-05). doi:[10.1136/bmjopen-2023-083516](https://doi.org/10.1136/bmjopen-2023-083516), PMID: 38316599, PMCID: PMC10859992
8. Ardizzone CM, Taylor CM, Toh E, Lillis RA, **Elnaggar JH**, Lammons JW, Mott PD, Duffy EL, Shen L, Quayle AJ. Association of *Chlamydia trachomatis* burden with the vaginal microbiota, bacterial vaginosis, and metronidazole treatment. *Front Cell Infect Microbiol* (2023-12-12). doi:[10.3389/fcimb.2023.1289449](https://doi.org/10.3389/fcimb.2023.1289449). PMID: 38149008, PMCID: PMC10750252
9. Colbert LE, El Alam MB, Wang R, Karpinets T, Lo D, Lynn EJ, Harris TA, **Elnaggar JH**, Yoshida-Court K, Tomasic K, Bronk JK, Sammoury J, Yanamandra AV, Olvera AV, Carlin LG, Sims T, Delgado Medrano AY, Napravnik TC, O'Hara M, Lin D, Abana CO, Li HX, Eifel PJ, Jhingran A,

- Joyner M, Lin L, Ramondetta LM, Futreal AM, Schmeler KM, Mathew G, Dorta-Estremera S, Zhang J, Wu X, Ajami NJ, Wong M, Taniguchi C, Petrosino JF, Sastry KJ, Okhuysen PC, Martinez SA, Tan L, Mahmud I, Lorenzi PL, Wargo JA, Klopp AH. Tumor-resident Lactobacillus iners confer chemoradiation resistance through lactate-induced metabolic rewiring. *Cancer Cell* (2023-11-13). doi:[10.1016/j.ccell.2023.09.012](https://doi.org/10.1016/j.ccell.2023.09.012), PMID: 37863066, PMCID: PMC10841640
10. Muzny CA, Cerca N, **Elnaggar JH**, Taylor CM, Sobel JD, Van Der Pol B. State of the Art for Diagnosis of Bacterial Vaginosis. *J Clin Microbiol* (2023-05-18). doi:[10.1128/jcm.00837-22](https://doi.org/10.1128/jcm.00837-22), PMID: 37199636, PMCID: PMC10446871.
  11. **Elnaggar JH**, Ardizzone CM, Cerca N, Toh E, Łaniewski P, Lillis RA, Herbst-Kralovetz M, Quayle AJ, Muzny CA, Taylor CM. A novel Gardnerella, Prevotella, and Lactobacillus standard that improves accuracy in quantifying bacterial burden in vaginal microbial communities. *Front. Cell. Infect. Microbiol* (2023-06-18). doi:[10.3389/fcimb.2023.1198113](https://doi.org/10.3389/fcimb.2023.1198113), PMID: 37404722, PMCID: PMC10315654
  12. **Elnaggar JH**, Lammons JW, Taylor CM, Toh E, Ardizzone CM, Dong A, Aaron KJ, Luo M, Tamhane A, Lefkowitz EJ, Quayle AJ, Nelson DE, Muzny CA. Characterization of Vaginal Microbial Community Dynamics in the Pathogenesis of Incident Bacterial Vaginosis, a Pilot Study. *Sexual Trans Dis.* (2023-8-1); doi:[10.1097/OLQ.0000000000001821](https://doi.org/10.1097/OLQ.0000000000001821), PMID: 37074327, PMCID: PMC10512881
  13. **Elnaggar JH**, Huynh VO, Lin D, Hillman RT, Abana CO, El Alam MB, Tomasic KC, Karpinets TV, Kouzy R, Phan JL, Wargo J, Holliday EB, Das P, Mezzari MP, Ajami NJ, Lynn EJ, Minsky BD, Morris VK, Milbourne A, Messick CA, Klopp AH, Futreal PA, Taniguchi CM, Schmeler KM, Colbert LE. HPV-related anal cancer is associated with changes in the anorectal microbiome during cancer development. *Front Immunol* (2023-03-28). doi:[10.3389/fimmu.2023.1051431](https://doi.org/10.3389/fimmu.2023.1051431), PMID: 37063829, PMCID: PMC1009044
  14. Muzny CA, Van Gerwen OT, Schroeder JA, Kay-Duncan ES, Siwakoti K, Aaron KJ, Eastlund IC, Graves KJ, **Elnaggar JH**, Tamhane A, Long D, Van Wagoner N, Toh E, Taylor CM. Impact of testosterone use on the vaginal microbiota of transgender men, including susceptibility to bacterial vaginosis: study protocol for a prospective, observational study. *BMJ Open* (2023-03-27). doi:[10.1136/bmjopen-2023-073068](https://doi.org/10.1136/bmjopen-2023-073068), PMID: 36972958, PMCID: PMC10069580
  15. Li X, Dowling EK, Yan G, Bozorgui B, Imarinad P, **Elnaggar JH**, Luna A, Menter DG, Kopetz S, Sander C, Korkut A. Precision combination therapies based on recurrent oncogenic co-alterations. *Cancer Discovery.* (2022-06-02) doi:[10.1158/2159-8290.CD-21-0832](https://doi.org/10.1158/2159-8290.CD-21-0832), PMID: 35412613, PMCID: PMC9524464
  16. Lin D, El Alam MB, Jaoude JA, Kouzy R, Phan JL, **Elnaggar JH**, Resendiz B, Medrano AYD, Lynn E, Nguyen ND, Noticewala SS, Mathew GG, Holliday EB, Minsky BD, Das P, Morris VK, Eng C, Mezzari MP, Petrosino JF, Ajami NJ, Klopp AH, Taniguchi CM, Colbert LE. Microbiome Dynamics During Chemoradiotherapy for Anal Cancer. *International Journal of Radiation Oncology Biology Physics*; (2022-05-02). doi:[10.1016/j.ijrobp.2022.04.037](https://doi.org/10.1016/j.ijrobp.2022.04.037), PMID: 35513187
  17. Greer M, **Elnaggar, JH**, Taylor CM, Shen L. Mycoplasma decontamination in Chlamydia trachomatis culture: a curative approach. *Pathogens and Disease.* (2022-01-12). doi:[10.1093/femspd/ftab056](https://doi.org/10.1093/femspd/ftab056) PMID: 34918079, PMCID: PMC8759436
  18. Baschnagel AM, **Elnaggar JH**, VanBeek HJ, Kromke AC, Skiba JH, Kaushik S, Abel L, Clark PA, Longhurst CA, Nickel KP, Leal TA, Zhao SG, Kimple RJ. ATR inhibitor M6620 (VX-970) enhances the effect of radiation in non-small cell lung cancer brain metastasis patient derived xenografts. *Molecular Cancer Therapeutics* (2021-08-19). doi:[10.1158/1535-7163.MCT-21-0305](https://doi.org/10.1158/1535-7163.MCT-21-0305), PMID: 34413128, PMCID: PMC8571002
  19. Hicks C, **Elnaggar J**, Wu J. Integrating GWAS with Gene Expression Data to Map the Landscape of Luminal Androgen Receptor and Mesenchymal Subtypes of Triple Negative Breast Cancer. *J Oncol Res Ther* (2021-01-18). doi:[10.29011/2574-710X.010103](https://doi.org/10.29011/2574-710X.010103)

20. **Elnaggar J**, Tsien F, Yates C, Davis M, Miele L, Hicks C. An Integrative Genomics Approach for Associating Genetic Susceptibility with the Tumor Immune Microenvironment in Triple Negative Breast Cancer. *Biomedical Journal of Scientific & Technical Research* (02-25-2019). Volume 15, Issue 1, pp 1-12. doi:[10.26717/BJSTR.2019.15.002642](https://doi.org/10.26717/BJSTR.2019.15.002642) PMID: 38618278, PMCID: PMC11013954

## **Presentations**

1. (Poster Presentation) Sousa LGV, **Elnaggar JH**, Lammons J, Taylor CM, Muzny CA, Cerca N. Gene Expression of Gardnerella vaginalis in Clinical Specimens Reflects Polymicrobial Interactions in Bacterial Vaginosis. *International Society for Infectious Diseases in Obstetrics and Gynaecology*; Belgrade, Serbia. (2025-10-25).
2. (Poster Presentation) Chakravarty U, Lammons J, **Elnaggar J**, Graves K, Aaron K, Laniewski P, Herbst-Kralovetz M, Muzny C, Taylor C. Developing a Foundation Model of the Vaginal Microbiome: Early Prediction of Bacterial Vaginosis. *LSUHSC 22nd Annual High School & Undergraduate Summer Symposium*; New Orleans, LA (2025-07-23). [https://www.medschool.lsuhs.edu/genetics/2025\\_summer\\_internship\\_poster\\_session.aspx](https://www.medschool.lsuhs.edu/genetics/2025_summer_internship_poster_session.aspx)
3. (Poster Presentation) **Elnaggar J**, White D, Cunningham C, Boulmay B. Littoral Cell Angioma: A Rare Diagnosis. *LSUHSC Medicine Research Day*; New Orleans, LA (2025-04-11) <https://www.medschool.lsuhs.edu/DOM/Education/researchday/default.aspx>
4. (Poster Presentation) White D, **Elnaggar J\***, Cunningham C, Boulmay B. Navigating Diagnostic and Therapeutic Challenges in Small Lymphocytic Lymphoma: A Case with Multifocal Involvement. *2025 Southern Regional Meetings*; New Orleans, LA (2025-02-25). <https://srm2025.com/pdf-srm-2025-program/> \*presenting author
5. (Poster Presentation) **Elnaggar J**, White D, Cunningham C, Boulmay B. Enlarged Mystery: Unveiling Littoral Cell Angioma. *Louisiana American College of Physicians (ACP) 2025 Annual Meeting*; New Orleans, LA (2025-1-31). [J-LSMS | ACP Abstracts | 2025](https://www.lsuhs.edu/LSMS/ACP/Abstracts/2025)
6. (Oral Presentation) **Elnaggar JH**, Jacobs C, Ardizzone CM, Aaron KJ, Eastlund IC, Graves KJ, Luo M, Tamhane A, Long D, Laniewski P, Herbst-Kralovetz MM, Quayle AJ, Cerca N, Muzny CA, Taylor CM. Leveraging Machine Learning Techniques to Investigate the Pathogenesis of Incident Bacterial Vaginosis. *2024 Infectious Diseases Society for Obstetrics and Gynecology (IDSOG) Annual meeting*. Portland, OR (2024-08-3). <https://www.idsog.org/2024-annual-meeting/2024-program/>
7. (Poster Presentation) **Elnaggar J**, Taylor CM, Ardizzone CM, Aaron KJ, Eastlund IC, Graves KJ, Luo M, Laniewski P, Herbst-Kralovetz MM, Quayle AJ, Cerca N, Muzny CA. A preliminary analysis of vaginal microbial changes prior to incident bacterial vaginosis. *Gordon Research Conference on Lactic Acid Bacteria Biology, Symbioses and Applications*; Ventura, CA (2023-7-23).
8. (Oral Presentation) **Elnaggar JH**, Jacobs C, Ardizzone CM, Aaron KJ, Eastlund IC, Graves KJ, Luo M, Tamhane A, Long D, Laniewski P, Herbst-Kralovetz MM, Quayle AJ, Cerca N, Muzny CA, Taylor CM. Leveraging Machine Learning Techniques to Investigate the Pathogenesis of Incident Bacterial Vaginosis. *LSUHSC Annual Joseph Moerschbaeche III, PhD Graduate Research Day*; New Orleans, LA (2023-11-2).
9. (Poster Presentation) **Elnaggar J**, Taylor CM, Ardizzone CM, Aaron KJ, Eastlund IC, Graves KJ, Luo M, Quayle AJ, Cerca N, Muzny CA. A preliminary analysis of vaginal microbial changes prior to incident bacterial vaginosis as determined by qPCR and inferred absolute abundance. *Infectious Diseases Week (IDWeek)*; Boston, MA, (2023-10-11).
10. (Poster Presentation) Lin D, Hillman T, El Alam M, **Elnaggar J**, Huynh V, Tomasic K, Klopp A, Taniguchi C, Schmeler K, Colbert L. Changes in the anorectal microbiome of anal cancer and anal dysplasia. *Radiation Research society 68th Annual Meeting*; Waikoloa, HI (2022-10-17). <https://na.eventscloud.com/website/37917/>



11. (Poster Presentation) **Elnaggar J**, Taylor CM, Toh E, Dong A, Lammons J, Aaron KJ, Meng L, Tamhane A, Lefkowitz EJ, Nelson DE, Muzny CA. Is Lactobacillus phage involved in the pathogenesis of bacterial vaginosis? 2022 *Infectious Diseases Society for Obstetrics and Gynecology*; Boston, MA (2022-08-04). <https://www.idsog.org/annual-meeting/program/>
12. (Poster Presentation) Korkut A, Li X, Kong E, Yan G, Dereli Z, Bozorgui B, Imanirad P, **Elnaggar J**, Luna A, Menter D, Pilié P, Yap T, Kopetz S, Sander C. Precision combination therapies based on recurrent oncogenic co-alterations. American Association for Cancer Research Annual Meeting 2022; New Orleans, LA (2022-04-12). <https://www.abstractsonline.com/pp8/#!/10517/presentation/20000>
13. (Oral Presentation) **Elnaggar, J**, Lammons J, Toh E, Dong A, Aaron KJ, Meng L, Tamhane A, Lefkowitz EJ, Nelson DE, Muzny CA, Taylor CM. Is Lactobacillus Phage Involved in The Pathogenesis of Bacterial Vaginosis? 2022 *American Physician Scientist Association (APSA) Northeast Regional Conference (NERC)*; Pittsburg, PA (2022-02-16). <https://ijms.info/IJMS/article/view/1359>
14. (Oral Presentation) **Elnaggar J**, Lammons J, Toh E, Dong A, Aaron KJ, Meng L, Tamhane A, Lefkowitz EJ, Nelson DE, Muzny CA, Taylor CM. Shotgun metagenomic sequencing of longitudinal vaginal specimens: is Lactobacillus phage involved in the pathogenesis of bacterial vaginosis? 2022 *UAB Microbiome Symposium*; Birmingham, AL (2022-01-10). <https://www.uab.edu/medicine/microbiome/education/microbiome-symposium>
15. (Poster Presentation) **Elnaggar J**, Taylor CM., Toh E., Dong A., Aaron KJ., Meng L., Tamhane AR., Lefkowitz EJ., Nelson DE., Muzny CA. Shotgun Metagenomic Sequencing of Vaginal Specimens Suggests Potential Involvement of Lactobacillus Phage Preceding Incident Bacterial Vaginosis. *Louisiana Biomedical Research Network*; New Orleans, LA (2021-04-15).
16. (Poster Presentation) Taylor CM, Toh E, Dong Q, Van Der Pol WJ, **Elnaggar J**, Meng L, Lefkowitz EJ, Nelson DE, Muzny CA. Use of Shotgun Metagenomics to Investigate the Pathogenesis of Incident Bacterial Vaginosis. In: *Anaerobes 2020: Anaerobes in the Genital Tract GT-10*; Seattle, WA (2020-07-24). <http://www.anaerobe.org/2020/2020abBook.pdf>
17. (Poster Presentation) **Elnaggar J**, Muzny C, Taylor C. Assessing the Vaginal Bacterial Community Leading up to Incident Bacterial Vaginosis Using Shotgun Metagenomics Sequencing. *LSUHSC Medical Student Research Day*; New Orleans, LA (2019-10-10).
18. (Poster Presentation) **Elnaggar J**, Li, X., Korkut A. Investigation of Adaptive Responses To Targeted Therapy In BRAF Inhibitor-Resistant Melanoma Cells. *MD Anderson Cancer Center CPRIT CURE Summer Undergraduate Program Poster Session*; Houston, TX (2017-08-4).
19. (Poster Presentation) Elnaggar J, Maxi J, Molina P. Chronic binge alcohol administration enhances pre-frontal cortex apoptotic signaling in SIV-infected rhesus macaques. *LSUHSC Undergraduate Summer Research Program Research Day*; New Orleans, LA (2015-07-24).

## **Extracurricular Activities and Leadership**

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|-------------|---|
| 06/2023     | <p>Software Carpentries Workshop</p> <p><i>This hands-on workshop that covered basic concepts and tools, including program design, version control, data management, and task automation</i> (<a href="https://aw1231.github.io/2023-06-13-lsuhscl/">https://aw1231.github.io/2023-06-13-lsuhscl/</a>)</p> <ul style="list-style-type: none"> <li>• <b>Teaching assistant</b> <ul style="list-style-type: none"> <li>○ Helped to instruct students and faculty with the Unix Shell, Version Control with Git, and Programming with Python.</li> </ul> </li> </ul> |
| 2018 – 2024 | <p>InterProfessional Student Alliance (IPSA): SLING Health NOLA Chapter</p> <p><i>A student-run biotechnology incubator that provides resources, training, and mentorship to teams of students (medical, engineering, business, etc.) tackling clinical problems by developing innovative solutions.</i></p>  |

- **Team leader** (08/2018-05/2019)
  - Created a team to implement Augmented Reality to Radiation Oncology (ARRO). This device facilitated patient positioning during cancer therapy to provide more accurate and efficient treatment.
  - Presented my idea and preliminary results at the 2019 SLING Health Demo Day in St. Louis, MO
- **President** (05/2019– 05/2021)
  - Collectively organized all team leaders and members with the mission of SLING Health. Provided resources, guidance, and mentoring to teams as needed as well as set up meetings for progress updates and presentations.
  - Conducted meetings to discuss achievements and shortcomings as well as collaborating to form new ideas to become more effective for our members.
- **Board of Senior Advisors** (05/2021– 05/2024)
  - Provide more open-ended assistance to the current president and team leaders using my prior experience in the organization.

- 08/2020 – 05/2022    LSUHSC Graduate Student Government Association (SGA)  
*Student government organization to stimulate school spirit, to encourage a closer student faculty relationship, to promote student welfare, and to encourage participation in professional activities.*
- **VP of Community Outreach** (05/2021 – 05/2022)
    - My role includes organizing and conducting community service events on campus and within the greater New Orleans area.
  - **Department Representative, Microbiology, Immunology, and Parasitology** (08/2020-05/2021)
    - Facilitated communication between the students and faculty members within the department to provide an open forum to express the needs and issues facing the students
- 08/2020 – 05/2022    American Physician Scientists Association (APSA) Undergraduate Mentor  
*Mentored undergraduate students through one-on-one pairing as part of APSA's structured Undergraduate Mentorship Program, supporting trainees through guidance on academic pathways, application preparation, and research engagement*
- Nithya Navarathna – Currently serves as a research assistant at Maryland Medical School and is applying medical school
  - Spencer “Skylar” Chan - Now a first-year student in the Medical Scientist Training Program at the University of Maryland School of Medicine.
- 01/2019-05/2019    Entrepreneurship for Biomedicine (E4B) training program  
*Course taught through the Washington University School of Medicine in St. Louis. I developed skills in entrepreneurial thinking that can be applied to academia and innovative projects.*
- 05/2019-05/2021    LSUHSC Medical Student Research Committee  
*The Medical Student Research Committee serves to provide LSUHSC students with a centralized source for currently available research projects, aiding in guiding*

*students on basic presentation of projects, and creating relationships between students and faculty.*

- **VP of Technology** (05/2019-05/2021)

- Founding member of this organization and established the website. Also coordinated with researchers to continually update the database with ongoing research projects.

05/2019 – 05/2020      LSUHSC Medical SGA

*The SGA is the board of students elected to represent the LSUHSC School of Medicine student body within the school and in the community.*

- **VP of Technology and Education**

- My role included serving on the Technology committee and take part in decisions regarding the utilization of technology fee funds

05/2019 – 05/2020      LSUHSC Oncology Interest Group

*The mission of the Oncology Interest group (OncIG) is to educate medical students on the dynamic field of oncology.*

- **President**

- My role included holding meetings and inviting lectures to discuss various areas of oncology practice.

## **Community Service**

2019 – present

Student Run Community Clinics

- Along with my fellow medical students, I provided a foundation of quality healthcare to the underserved and disadvantaged of the New Orleans community.

September 2021

Hurricane Ida relief drive

- As VP of Community Service under the Graduate Studies SGA, I organized a donation drive and fundraiser for individuals affected by Hurricane Ida. We raised over \$2,000 and collected multiple truckloads of supplies.

2020 – 2022

Rebuild Center Volunteer

- Volunteered at the Rebuild Center, a shelter for individuals experiencing homelessness. Cleaned and conducted repairs in the facility, packed and handed out meals, and organized student volunteer activities.

May 2019

Camp Tiger Counselor

- Counselor at a fun-filled, weeklong day camp for children with special needs. Chaperoned and ensured safety while helping to maximize fun!

2019 – 2020

Campus Tour Guide

- Hosting medical school interviewees throughout the day to tour the campus and University Medical Center. Represented the face of LSUHSC by recruiting and welcoming potential new students to the school.

2018 – 2020

Basic Life Support (BLS) Instructor - American Heart Association

- Underwent BLS training to volunteer at several events to instruct my peers and other healthcare professional students in basic life support.

2018 - 2019

IPSA: Students for Sustainability Garden Workdays

- Assisted in weeding and harvesting in an urban garden center on the LSUHSC campus.

### **Honors and Awards**

09/2025	Inducted into Alpha Omega Alpha (AOA) Honor Medical Society, recognizing excellence in academic performance, leadership, professionalism, and commitment to service.
07/2025	American Society for Radiation Oncology (ASTRO)–Breast Cancer Research Foundation (BCRF) Medical Student Fellowship. \$2,000 award to attend the 2025 ASTRO Annual Meeting. ASTRO-BCRF Radiation Oncology Visiting Away Rotation Scholarship. \$2,500 award to support a radiation oncology away rotation.
05/2024	Nominated by the Department of Microbiology, Immunology, and Parasitology as the representative for the Chancellor's Award.
07/2023	Travel award to attend Lactic Acid Bacteria Biology, Symbioses and Applications - Gordon Research Conference
08/2022	American STD Association (ASTDA) Small Project Assistance, competitive funding awarded to support PhD research on bacterial vaginosis.
07/2022	Stanley W. Watson Education Scholarship. Accepted to the Strategies and Techniques for Analyzing Microbial Population Structures (STAMPS) 10-day workshop, Marine Biological Laboratory, MA. Received \$500 to attend STAMPS
06/2022	\$1,800 from UAB Center for Clinical and Translational Science (CCTS) Mini-Sabbatical Award. Competitive funding award to attend IDSOG and STAMPS
06/2022	2022 Interprofessional Student Alliance Leadership Award, LSUHSC, LA <a href="https://graduatestudies.lsuhscl.edu/sgsnews.aspx">https://graduatestudies.lsuhscl.edu/sgsnews.aspx</a>
05/2022	Infectious Diseases Society for Obstetrics and Gynecology (IDSOG) Travel Scholarship, \$1000 to attend the 2022 IDSOG Annual Meeting, Boston, MA
09/2020	Diversity travel Scholarship, University of Colorado, Denver 35 <sup>th</sup> MD PhD Conference
05/2018	B.S. in Bioinformatics <i>magna cum laude</i> , Baylor University, TX

### **Examinations**

07/2025	USMLE Step 2 - 265
06/2019	USMLE Step 1 - 245