

Davida Suzanne Smyth, PhD

Professor of Biology

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WORK ADDRESS

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EDUCATION

2001 – 2006 Ph.D. in Microbiology, Department of Microbiology, Trinity College Dublin
2003 – 2004 Postgraduate Diploma in Statistics, Trinity College Dublin
1997 – 2001 BA (MOD) in Microbiology, Dept. of Microbiology, Trinity College Dublin

POSTDOCTORAL TRAINING

07/10 – 07/12 Postdoctoral Fellow/Research Associate, Infectious Diseases, New York University – Shopsin Lab
08/09 – 03/10 Postdoctoral Associate, Dept. of Microbiology, UMMC - Robinson Lab
02/06 – 07/09 Postdoctoral Fellow, Dept. of Microbiology, New York Medical College - Robinson Lab

CAREER SUMMARY

Researching the role of the built environment and anthropogenic activity in driving microbial transmission and antibiotic resistance. Working to improve civic, scientific literacy in biology and increasing access to high-impact, authentic research embedded in the curriculum. PI of NSF REU: INSPIRE Improving Student Participation in Research Experiences. Former PI of the NSF-funded WaTR³ project working to increase recruitment to the water workforce. Former Co-PI of NSF-funded Research Experiences in Microbiomes Network (REMNet) working to improve access to microbiome-related pedagogy and research in the classroom. Co-PI on the IGELs project aimed to improve general education life science courses. Deputy Director of the National Center for Science Education and Civic Engagement (NCSCE), focusing on professional development and assessment for Science Education for New Civic Engagements and Responsibilities (SENCER) faculty. Partnership for Undergraduate Life Sciences Education (PULSE) Fellow & Ambassador. National Association of Biology Teachers (NABT) Four-Year College & University Teaching Award Winner. American Society for Microbiology Distinguished Lecturer & ASM Carski Award for Undergraduate Education Winner in 2025.

STATEMENT ON ACADEMIC LEADERSHIP

I came to America to begin my research career in microbiology and have since devoted my career to improving the educational and research opportunities for all students, with a particular focus on first-generation, socioeconomically disadvantaged, and underrepresented students in STEM. Working at predominantly resource-limited institutions, I've advocated for faculty, serving as a leader, mentor, trainer, developer, and friend.

MAJOR LEADERSHIP EXPERIENCE

08/15 - Chairperson of Natural Sciences at A&M-SA.

03/25 - Director for Research Development and Administration at A&M-SA.

Significant Outcomes: Expanded the student research symposium from a 1- to 5-day event. Expanded a summer grant program to support faculty writing grants. Led the development of the first database structure for capturing faculty research and products. Piloted and adopted a new grant prospecting service (Grant Forward). Restructured the Council of PIs and redirected activities towards barrier identification and reduction. Served on the search committee for the new Vice President for Research. Created special interest groups around genomics, food/energy/water nexus, the Texas Borderlands, and AI/cybersecurity.

09/24 - 03/25 Presidential Faculty Fellow for Research Development at A&M-SA¹

Significant Outcomes: As the inaugural Presidential Fellow, worked to increase faculty research grant proposals and awards. Began development of the first database for the curation of university-wide faculty research, scholarly and creative works. Reduced barriers to grant implementation, including spending and budgets, issues with compliance, and hiring delays. Developed a database of faculty mentoring undergraduates within and outside A&M-SA, developing REU awareness and helping students apply. Produced the research newsletter and administered the research council grants.

09/24 - 08/25 Program Coordinator, Biology at A&M-SA

Having served as Assessment Coordinator for 2 years, became Program Coordinator in Sept. **Significant Outcomes:** Responsible for the largest program at A&M-SA. Supported and guided assessment in Biology and worked with the assessment coordinator and program faculty to develop a biology curriculum map that is aligned with Vision and Change. Worked on new initiatives aimed at improving data collection on student success beyond DFW rates, such as pre- and post-assessment and students repeating critical courses. Led the development of a new rubric for faculty evaluation on a five-point scale, mentoring and guiding new faculty in the program and department. Served as liaison to the ESPADA project, a 380-acre Espada Nature Park and Research Area donation to the University (co-owned with the San Antonio River Authority).

09/16 - Deputy Director, National Center for Science and Civic Engagement²

Elected SENCER “leadership fellow” in 2016 and appointed the Deputy Director of NCSCE in 2020. **Significant outcomes:** Since 2016 have presented dozens of sessions, webinars, keynotes and workshops on curricular design and high-impact practices, including course-based undergraduate research, on assessment, and on systemic organizational challenges in higher education, such as the status of contingent faculty, and diversity, access and inclusion in STEM across the United States. Have secured funding through donors and grants and ensured financial stability for NCSCE for the next 3-5 years. Helped develop SENCER 2.0, a new membership

¹ I was the co-chair of the Inaugural Council of Principal Investigators and Natural Sciences Senator where I led initiatives around workload, budgeting and resources. In my role as Interim Director, I oversee the CPI.

² NCSCE is the home of the nationally recognized SENCER project. SENCER stands for “Science Education for New Civic Engagements and Responsibilities”

framework to increase financial stability, and initiated new cohorts of scholars engaged in research, diplomats with connections abroad, and ambassadors who advocate for SENCER at their own institutions. Have co-organized the 4-day Annual SENCER Summer since 2020. Spearheaded a new wave of SENCER-supported research and established the SENCER Water Fellowships that support wastewater research and teaching in the United States, Uruguay, Kenya, India, and Mexico.

07/16 – 07/18 Chair, Natural Sciences at Mercy College (now University)

Significant Outcomes: *Collaborated with Program Directors to optimize course offerings across three campuses, typically over 270 course sections per term and 5300 student enrollments across 6 disciplines of study. During the Natural Science annual assessment retreats, facilitated the faculty's work aligning the science courses offered at Mercy with the national Vision and Change document. Secured additional funding for the department by linking assessment results and processes to student success and improvement. As chair, supported the Clinical Laboratory Science Program's initial accreditation from the National Accrediting Agency for Clinical Laboratory Sciences (NAACLS), which required a total curriculum redesign and the development of 17 new course syllabi and assessments, while ensuring coverage of the NAACLS accreditation standards. As Chair, managed the \$1.8 million Natural Science Department budget, seeking support and problem-solving with the School Dean as needed. In 2016, awarded a grant from the Department of Defense to purchase an Ion S5 DNA sequencer and establish the Initiative for Undergraduate Research and Education in Genomics. Was one of the four authors of the successful HHMI Inclusive Excellence award and led the establishment of the Adjunct Academy. Started Classroom Undergraduate Research Experiences at Mercy, developed the first CURE course, and hosted a regional CURENet meeting at Mercy. Hired several new tenure-track and professional-track faculty.*

02/14 - 08/16 Biomedical Informatics Internship Coordinator & Program Coordinator, New York City College of Technology (CityTech)

Having served as Inaugural Internship Coordinator for 2 years, I was appointed Program Coordinator in my third year as a faculty member.

Significant Outcomes: *Established the first internship program in biological sciences. Created the internship manual and developed the forms, assessment materials, and procedures. Organized the end-of-semester internship symposiums and recruited speakers and mentors. Served as student club faculty sponsor for the Biomedical Informatics Program (BIB) at CityTech and used the club to support peer mentoring and guidance for students in the program. As program coordinator, oversaw curriculum development and improvement with a focus on student skill development and success, while maintaining the budget and supporting ordering to reduce waste. Wrote the initial draft of the program review and implemented recommendations as coordinator.*

ACADEMIC APPOINTMENTS

08/15 – Chairperson, Department of Natural Sciences, Texas A&M University-SA
07/25 – Director for Research Development and Administration, Texas A&M University-SA
03/25 – 06/26 Interim Director for Research Development and Administration, Texas A&M University-SA
09/24 – 02/25 Presidential Faculty Fellow for Research Development, Texas A&M University-SA
09/24 – Professor, Department of Natural Sciences
08/24 – 08/25 Biology Program Coordinator, Department of Natural Sciences
07/24 – 06/26 ASM Distinguished Lecturer, American Society for Microbiology
04/24 – 05/25 Faculty Senator, Department of Natural Sciences
03/24 – Adjunct Faculty, Texas A&M, Dept of Rangeland, Wildlife, and Fisheries Management
08/21 – 08/24 Associate Professor with Tenure, Texas A&M University-San Antonio
05/20 – Deputy Director, The National Center for Science and Civic Engagement
01/19 – 07/21 BSL2 Research Lab Director, The New School (TNS)
10/18 – 07/21 Affiliated Faculty of the Tishman Environment and Design Center, TNS
08/18 – 07/21 Associate Professor, Natural Sciences and Mathematics, Eugene Lang, TNS
07/16 – 07/18 Chairperson, Natural Sciences, Mercy College, Dobbs Ferry
09/15 – 07/18 Associate Professor, Natural Sciences, Mercy College, Dobbs Ferry
09/14 – 09/16 Adjunct Lecturer, Bioinformatics, NYU Polytechnic School of Engineering
01/15 – 08/15 Program Coordinator, Biomedical Informatics, New York City College of Technology (CityTech)
02/14 – 08/15 Internship Coordinator, Biomedical Informatics, CityTech, NY
08/12 – 08/15 Assistant Professor, Biological Sciences, CityTech, NY
08/12 – 01/18 Research Scientist, Infectious Diseases, Novick Lab Skirball Institute, New York University
01/11 – 05/11 Adjunct Instructor, Microbiology, Stern College for Women, Yeshiva University, NY

TEACHING

Teaching Awards and Recognition

2026 Nominated for AAAS Fellowship Section Q
2025 Received the American Society of Microbiology Carski Award for Undergraduate Education
2024 Received the A&M-SA College of Arts and Sciences Distinguished Tenured Faculty Teaching Award
2024 Selected as an American Society of Microbiology Distinguished Lecturer. Served a 2-year term.
2023 A&M-SA nominee for the Minnie Stevens Piper Professor Award
2023 Nominated for the ASM Carski Award for Undergraduate Education
2022 Nominated for the College of Arts and Sciences Outstanding Faculty Award for Research
2022 Won National Association of Biology Teachers (NABT) [Four-Year College & University Teaching Award](#)
2021 Excellence in Faculty Advising Award, Eugene Lang College of Liberal Arts at TNS
2021 Eugene Lang Recognition Ceremony Faculty [Speaker](#) (speech starts at 30 mins)
2021 Nominated for the NABT Four-Year College & University Teaching Award
2021 Appointed a Partnership for Undergraduate Life Sciences ([PULSE](#)) Ambassador

- 2019 Elected a Partnership for Undergraduate Life Sciences (PULSE) Fellow
- 2019 Appointed a Promoting Active Learning and Mentoring (PALM) Network Mentor
- 2018 Appointed SENCER Senior Leadership Fellow
- 2018 Recipient of the Mercy College Teaching Excellence Award
- 2017 Nominated by students for a Mercy College Mavie Award
- 2017 Nominated for the Mercy College Teaching Excellence Award
- 2016 Judge's Travel Award - Annual Biomedical Research Conference for Minority Students (ABRCMS)
- 2015 Judge's Travel Award - Annual Biomedical Research Conference for Minority Students (ABRCMS)
- 2016 Elected a Science Education for New Civic Engagements and Responsibilities (SENCER) Leadership Fellow
- 2013 Beitler Foundation Award

Student Mentee Awards at A&M-SA, The New School (TNS), Mercy College, and CityTech

- 2025 3rd place undergraduate poster competition to Lauren Esp - A&M-SA Student Research Symposium
- 2024 1st place Graduate Student Talk to Lyndsy Stacy - A&M-SA Student Research Symposium
- 2024 3rd place undergraduate poster competition to Lauren Esp - A&M-SA Student Research Symposium
- 2024 1st place 3MT competition to Lyndsy Stacy
- 2023 2nd Place Graduate Student Talk to Lyndsy Stacy - A&M-SA Student Research Symposium
- 2022 SA SMART Challenge High School Award First Place to my mentees, the Keystone School Team
- 2022 ASM Future Leaders Fellowship Award to Master's Student Ariel Robles
- 2021 Eugene Lang Opportunity Award to TNS undergraduate Leah Hughes
- 2019 The New School Student Research Award to TNS undergraduate student Molly Metz
- 2019 Eugene Lang Opportunity Award to New School undergraduate Annabelle Adams Beyea
- 2019 Eugene Lang Opportunity Award to New School undergraduate Wes Thomason
- 2019 Kalil Award to New School undergraduate Ethyn Maki
- 2019 1st Place Poster Award in Microbiology/Immunology at the 52nd Metropolitan Association of College and University Biologists (MACUB) to Kristoff Misquita, Stuyvesant HS, & Simon Chen, TNS (TNS)
- 2019 3rd Place Poster Award in Microbiology/Immunology at the 52nd MACUB to Leah Hughes, TNS
- 2019 New School Civic Engagement and Social Justice Award to New School undergraduate Wes Thomason
- 2019 Outstanding Poster Award at the Urban Barcode Research Program Symposium to Kristoff Misquita, Michaelangelo Pagan, and Rita Chen, Stuyvesant High School
- 2019 Eugene Lang Opportunity Award to New School undergraduate Emma Letcher
- 2019 The New School Student Research Award to New School graduate student Marcus Banks
- 2018 3rd Place for Best Graduate Student Poster to TNS graduate student Marcus Banks, 51st MACUB conference
- 2016 The Society for Advancement of Chicanos/Hispanics and Native Americans in Science (SACNAS) Student Travel Award to Mercy College undergraduate Natalia Tumidajski
- 2017 American Society of Microbiology Undergraduate Research Capstone Award to Mercy College undergraduate Natalie Vegas
- 2017 Collegiate Science and Technology Entry Program (CSTEP) Honorary Mention to Mercy College undergraduate Bien Porconi

- 2016 The Annual Biomedical Research Conference for Minority Students (ABRCMS) Student Award to Mercy College undergraduate Bien Porconi
- 2015 American Society of Microbiology Undergraduate Research Capstone Award to CityTech undergraduate Manhin Lam
- 2015 2nd Place STEM Student Poster at Emerging Scholars to CityTech undergraduate Rimsha Azhar
- 2015 Best Non-STEM Student Poster at Emerging Scholars to CityTech undergraduate Faizan Malik
- 2014 Best Non-STEM Student Poster at Emerging Scholars to CityTech undergraduate George Cobos
- 2014 Annual Biomedical Research Conference for Minority Students (ABRCMS) Student Travel Award to CityTech undergraduate student Fabiola Fontaine

Courses Taught/Developed at A&M-SA (G - Graduate, U - Undergraduate)

- 1. BIOM 3101 - Biomedical Ethics (U) - developed for new Biomedical Sciences program
- 2. BIOM 3301 - Toxicology (U) - developed for new Biomedical Sciences program
- 3. BIOM 3401 - Histology (U) - developed for new Biomedical Sciences program
- 4. BIOM 3402 - Human Physiology (U) - developed for new Biomedical Sciences program
- 5. BIOM 3410 - Biomedical Sciences Internship (U) - developed for new Biomedical Sciences program
- 6. BIOM 4101 - Seminar in Biomedical Science (U) - developed for new Biomedical Sciences program
- 7. BIOL 1110 - Navigating your Career Landscape (U) - developed for non-majors students
- 8. BIOL 3412 - Applied and Environmental Microbiology (U) - new elective for Biology majors
- 9. UNIV 1301 - How the Toilet Changed the World (U) - novel thematic first year seminar course
- 10. BIOL 4104 - Seminar in Integrative Biology (U) - taught Spring 2023
- 11. BIOL 5404 - Biotechnology (G) - taught Fall 2023
- 12. BIOL 5310 - Graduate Scientific Scholarship (G)
- 13. BIOL 4406 - Bacteriology Lecture and Lab (U)
- 14. BIOL 4407 - Virology Lecture and Lab (U)
- 15. BIOL 4304 - Undergraduate Research in Biology (U)
- 16. BIOL 3104 - Research Experience in Biology (U)
- 17. BIOL 2421 - Introduction to Microbiology Lecture and Laboratory (U)
- 18. BIOL 1306 - Introductory Biology Lecture (U)

Curricular Development and Teaching at TNS (all courses are undergraduate)

- 1. Curriculum development for NSF Funded Project "Online Educational Resources on the Science of Vaccines".
- 2. Supervised students for the Dean's Honors Symposium in Spring 2021.
- 3. Developed a new Freshman Seminar course "How the Toilet Changed the World"
- 4. Developed a new "Microbial Ecologies" course featuring a research module as part of Tiny Earth Consortium
- 5. Adapted my Classroom-based Undergraduate Research Experience course "The Microbiome of Urban Spaces" to TNS
- 6. Developed the "Advanced Research in Microbiology" course.

7. Developed “Evolution, Mutation, Computation”. Participated in Avida Ed workshop to develop evolution and computation-based curricular materials
8. Developed “Building your Career Ecosystem” for Spring 2019.
9. Developed the Summer Undergraduate Research Experience (SURE) for TNS in 2019.
10. Developed 3 guest lab sessions for the HoneyBee Colonies course
11. Developed 2 guest lectures for University Lecture courses “Environmental Humanities” and “Waste and Justice”

Teaching at NYU Polytechnic School of Engineering (all courses are graduate level)

1. Taught the Systems Biology course
2. Taught the Omes and Omics course

Curricular Development and Teaching while at Mercy College and CityTech (all courses are undergraduate level)

1. Developed the training materials and course for Peer-Led Team Learning in Biology and Psychology at Mercy in collaboration with Dr. Janet Liou Mark of CityTech
2. Developed a novel course-based undergraduate research experience (CURE) called “Microbiology of Urban Spaces” with a Mercy Micro Grant for teaching innovation
3. Taught (Honors and non-honors) environmental science. Developed teaching materials and curriculum for honors students and incorporated project-based learning
4. At Mercy, I redesigned the microbiology lecture and laboratory course to feature projects, ePortfolios, and practical exams. Served as course coordinator.
5. Taught introductory biology and genetics courses. Introduced projects and poster presentations for Introductory Biology students.
6. Along with Dr. Irina Ellison generated new courses for the Health Sciences program including “Scientific Communication” and “Health Informatics”
7. Developed drafts of elective courses “Introduction to Bioinformatics” and “Programming for Biologists” for the Biology major
8. As biology liaison of READ, designed assignments that promoted reading for biology students Trained faculty in how to design assignments. Trained and oversaw peer leaders in Biology as part of PLTL for READ. Collaborated with other disciplines to improve reading therein
9. Introduced Authentic Research Experiences in Microbiology (AREM) module into the Introductory Microbiology Course in collaboration with Brooklyn College.
10. Developed and led the internship course and program for the Biomedical Informatics Program (BIB) at CityTech
11. Was an instructor for “Weird Science” at CityTech and represented the biological perspective of what makes us human for this interdisciplinary course

Teaching Workshops

- 2026 **Smyth, D.S.**, Reilly E.J. Teaching others to teach through the Issues. April 25th. Texas A&M University-San Antonio.
- 2025 **Team IGELS**. Introducing the LifeSkills Guide. NABT. Oct 30th. St. Louis, MI. Workshop.
- 2025 **Smyth, D.S.**, Reilly E.J. and Mirsaleh Kohan, N. Teaching through the Issues. Jan 18th. Texas A&M University-San Antonio.
- 2024 **Team IGELS**. The LifeSkills Guide: A Tool for Faculty Teaching Undergraduate Life Science Courses. Nov 15th. NABT 2024. Anaheim, California
- 2024 **Team IGELS**. Searching for “Catalysts” for the IGELS Project. Nov 16th. NABT 2024. Anaheim, California
- 2024 **Smyth, D.S.**, and Muth, T. November 16th. Microbiomes for All. NABT 2024. Anaheim, California
- 2024 **Smyth, D.S.**, and Muth, T. Sept 26st, Oct 17th, Oct 31st and Nov 7th. Microbiomes for All: Tools for Microbiome Student Research. Online with ASM.
- 2023 **Smyth, D.S.** and Williams, Duane. Teaching through the Issues. Dec 1st. Texas A&M University-San Antonio.
- 2023 Siegesmund, A., Horak, R., Boury, N., Frazier, A. **Smyth, D.S.**, Kushner, D., Rosario, S., and Steel, J. ASM Curriculum Guidelines 2.0: Levelling up. ASMCUE. Nov 18th. Phoenix, Arizona.
- 2023 **Smyth, D.S.** and Muth, T. Microbiomes for All: Introducing Research Experiences in Microbiomes Network. ASMCUE. Nov 18th. Phoenix, Arizona.
- 2023 **Smyth, D.S.** ASMCUE. From genomes to metagenomes with the MinION: getting started with Nanopore Sequencing Technology. Nov 18th. Phoenix, Arizona.
- 2023 **Smyth, D.S.**, Kaplan, A. and Muth, T. Sept 27, Oct 11th, Oct 25th, Nov 8th. Microbiomes for All: Tools for Microbiome Student Research. Online with ASM.
- 2023 **Smyth, D.S.**, and rest of team IGELS. Interactions In General Education Life Science courses (IGELS): Introducing the LifeSkills Guide for Undergraduate Faculty. National Association of Biology Teachers Professional Development Conference, Baltimore. November 2nd.
- 2023 **Smyth, D.S.** STEM Educators as Civic Educators. July 13th. [2023 BIOME](#) Institute Online
- 2023 **Smyth, D.S.** STEM Educators as Civic Educators: Assessing learning through POGIL. June 27th. [National Conference to Advance POGIL Practice](#). Salt Lake City, Utah.
- 2023 Muth, T. and **Smyth D.S.** Microbiomes for All: Tools for Microbiome Student Research. June 14th. Wyndham Hotel. Houston, TX. (Right before ASM Microbe 2023 in Houston TX).
- 2023 Muth, T. and **Smyth D.S.** Microbiomes for All: Tools for Microbiome Student Research. 3rd Global Soil Biodiversity Conference. Dublin, Ireland. March 13-15th.
- 2022 **Smyth, D.S.**, Goulet, T, and rest of team IGELS. Interactions in General Education Life Science Courses (IGELS): Tools, Tips, & Strategies to Enhance Undergraduate Biology for Non-majors. National Association of Biology Teachers Professional Development Conference, Indianapolis. November 10th.
- 2022 **Smyth, D.S.**, Kaplan, A. and Muth, T. Sept 28th, Oct 12th, Oct 26th. Microbiomes for All: Tools for Microbiome Student Research. Online with ASM.
- 2022 **Smyth, D.S. and Sieg, D.** Teaching with SENCER. Online. MoSI/SENCER Mashup.
- 2021 **Smyth, D.S.** and Reilly, E. STEM Educators as Civic Educators. NABT. Nov 12th. Atlanta, GA.
- 2021 **Smyth, D.S.**, Goulet, T. and Uno, G. A new project for Undergraduate Non-Majors Biology Courses and Instructors. NABT. Nov 12th. Atlanta, GA.

- 2021 **Smyth, D.S.**, Kaplan, A. and Muth, T. Sept 29, Oct 6th, Oct 13th. Microbiomes for All: Tools for Microbiome Student Research. Online with ASM.
- 2021 **Smyth, D.S.** Using Evidence-based Teaching Practices to Connect Education with Civic Engagement and Responsibility. The University of Richmond. August 9th. Online. Workshop.
- 2021 **Smyth, D.S. & Chamany, K.** Asking Questions. TNS. March 30th. Online. Workshop
- 2021 **Smyth, D.S.** Experimenting while teaching. TNS. March 26th. Online. Workshop
- 2021 Conefrey, T. & **Smyth, D.S.** High-Impact Practices for Transforming Online Learning Through COVID-19. The 12th Annual ePortfolio Forum. January 22. Online Workshop.
- 2021 **Smyth, D.S.** Conefrey, T., Estes, H. and Duckett, C. Interdisciplinary Narrative in Science. SENCER SCI-MidAtlantic Meeting. Jan 16th. Online.
- 2020 **Smyth, D.S.** Experimenting while teaching. TNS. Nov 11th. Online. Workshop
- 2020 **Smyth, D.S.**, Devanas, M, and Sieg, D. Designing a SENCER Course in 90 mins. SENCER Summer Institute. Online. Workshop.
- 2020 **Smyth, D.S.**, and Hill, Yao. Essential SENCER Outcomes to Resemble SENCER Ideals. SENCER Summer Institute. Online. Workshop.
- 2020 Muth, T. & **Smyth, D.S.** The Research Experiences in Microbiomes Network. Online.
- 2020 Conefrey, T. & **Smyth, D.S.** ePortfolios to integrate learning across the curriculum and beyond- Promoting digital citizenship and civic scientific literacy. The 11th Annual ePortfolio Forum. January 25. Washington, DC. Workshop.
- 2019 **Smyth, D.S.** SENCERizing your CURE. SUNY Binghamton. Nov 16th. Invited workshop
- 2019 **Smyth, D.S.**, and others. Classroom Undergraduate Research Experiences. HHMI Adjunct Academy. Mercy College. Nov 3rd.
- 2019 **Smyth, D.S.**, and others. Project-Based Learning. HHMI Adjunct Academy. Mercy College. Oct 27th.
- 2019 **Smyth, D.S.** Doing research inside the classroom: Introducing the Scholarship of Teaching and Learning. Faculty Development Workshop at TNS. Oct 31st.
- 2019 **Smyth, D.S.** Assessing the Breadth and Diversity of Student Learning with Project-Based Learning and Undergraduate Research. SENCER Summer Institute. Aug 1st to 4th. Case Western University, Cleveland, OH. Workshop and Panel.
- 2019 **Smyth, D.S.** & Conefrey, T. ePortfolios for Civic Scientific Literacy. SENCER Summer Institute. Aug 1st to 4th. Case Western University, Cleveland, OH. Workshop.
- 2019 Conefrey, T. & **Smyth, D.S.** ePortfolios for Civic Scientific Literacy. Annual Meeting of the Association for Authentic, Experiential, and Evidence-Based Learning. Bronx Community College. July 17th. Workshop.
- 2019 **Smyth, D.S.** Tiny Earth Workshop. World Science Academy and Festival. March 21st. High School for Health Professions and Human Services. New York. NY. Workshop.
- 2019 **Smyth, D.S.** Micropipetting, and streaking workshop. World Science Academy and Festival. March 6th. The Advanced Science Research Center of CUNY. City College. NY. Workshop.
- 2019 **Smyth, D.** and Liou-Mark, J. Peer-Led Team Learning at Mercy College. Jan 16th. Mercy College, Dobbs Ferry, NY. Workshop.
- 2019 Conefrey, T. & **Smyth, D.S.** ePortfolios for Academic Identity and Civic Engagement in Diverse Student Populations. The 10th Annual ePortfolio Forum. January 26. Atlanta, GA. Workshop Session. Workshop.

Contributed Open Education Resources/Websites

1. **Dauida Smyth**; Sam S Donovan; Melanie Lenahan; Dayna DeFeo; Karla Fuller; Tamar Goulet; Gabriela Hamerlinck; Elizabeth Harrison; Jaclyn Reeves-Pepin; Heather Rissler; Gordon Uno (2025). LifeSkills Guide. IGELS Project, (Version 2.0). QUBES Educational Resources. doi:10.25334/E9YC-6N27
2. **Smyth, D.** (2025). Fake News. IGELS Project, QUBES Educational Resources. doi:10.25334/V6HT-Q858
3. <http://www.covidcode.net>
4. <http://www.microbiomesforall.com>
5. **Smyth, D.S.** Understanding Science. <https://www.vaccine-science-education.org/videos-and-toolkits>
6. **Smyth, D.,** Tarun, A., Girtain, C., Lenahan, M., Goytia, M., Sompanya, K. G., Muth, T. (2020). Team microBIOME Fall 2020 - DIY microbiome analysis. Cultivating Scientific Curiosity, QUBES Educational Resources. doi:10.25334/Q2JB-X680
7. **Smyth, D.** (2020). Transforming your CUREs with SENCER. Cultivating Scientific Curiosity, QUBES Educational Resources. doi:10.25334/P11N-7X82
8. Joyner, J., **Smyth, D.,** Caplan, A., Muth, T. (2020). Microbiomes for All: The Research Experiences in Microbiomes Network. Cultivating Scientific Curiosity, QUBES Educational Resources.
9. **Smyth, D.** (2020). SENCERizing your CURE. Cultivating Scientific Curiosity, QUBES Educational Resources. doi:10.25334/RE12-ZK82
10. **Smyth, D.** (2018). Laboratory exercises on microbial growth, horizontal gene transfer, competition, and evolution. QUBES Educational Resources. doi:10.25334/Q4171F
11. **Smyth, D.** (2018). Improving Civic and Scientific Literacy through Scaffolded Thematic Classroom Research Experiences. Wicked Problems: Investigating real-world problems in the biology classroom (SW 2018), (Version 2.0). QUBES Educational Resources. doi:10.25334/Q4ST3W

Graduate Theses

1. Rodriguez, Gloria and Smyth, Davida, "Comparison of Cost, Accessibility, Speed and Efficiency of Modern Microbial Detection Methods for Wastewater Surveillance and their Potential Benefits in Low-Resource Settings (2025). *Masters Theses*. 49. https://digitalcommons.tamusa.edu/masters_theses/49
2. Guillen Castro, Dennis; Garcia, Robert; Castro, Jonathan; and Smyth, Davida, "Impacts of Land Development on Soil Microdiversity and Antibiotic Production" (2025). *Masters Theses*. 41. https://digitalcommons.tamusa.edu/masters_theses/41
3. Stacy, Lyndsy, "Agent-Based Modeling and Air Sampling Methods for Studying Aerosol Transmission" (2024). *Masters Theses*. 19. https://digitalcommons.tamusa.edu/masters_theses/19
4. McBrady, Austin, "Targeting Macrophytes: Increased Water Quality Through Optimized Vegetation Considerations for Constructed Wetlands" (2023). *Masters Theses*. 5. https://digitalcommons.tamusa.edu/masters_theses/5

Graduate Student and Postdoc Research Mentoring

1. Megan Sosa - A&M-SA - Master's in Biology - July 2026 - present

2. Sophia Hernandez - A&M-SA - Master's in Biology - July 2026 - present
3. Daniel Guerra - A&M-SA - Postdoctoral Fellow (with Clay Green) - Feb 2025 - present
4. Uriel Eddy - A&M-SA - Master's in Biology - July 2025 - present
5. Alexis Denn - A&M-SA - Master's in Biology - Dec 2024 - defended
6. Rebecca McGehee - A&M-SA - Master's in Biology – Fall 2024 - defended
7. Sarah Freeman - A&M-SA - Master's in Biology - August 2024 - present
8. Robert Garcia - A&M-SA - Master's in Biology - Jan 2024 - present
9. Dennis Guillen Castro - A&M-SA - Master's in Biology - July 2023 - [graduated](#)
10. Blake Meche – A&M-SA - Master's in Biology - Jan 2023 - present
11. Lyndsy Stacy – A&M-SA - Master's in Biology - Sept 2022 - [graduated](#) - co-mentored with Dr Teufel
12. Gloria Rodriguez – A&M-SA - Master's in Biology - Sept 2022 - [graduated](#)
13. Ariel Robles – A&M-SA - Master's in Biology – Sept 2021 – present
14. Starla Thornhill – A&M-SA - Postdoctoral fellow – October 2021 – March 2022
15. Antun Skanata – TNS - Postdoctoral fellow (with John Dennehy) – Jan to July 2021
16. Fabrizio Spagnolo - TNS - Postdoctoral fellow (with John Dennehy) – June to Dec 2020
17. Marcus Banks – TNS - Master's in Design - 2019-2020 - went to Medical School

Internal and External Thesis Committee Membership

1. Benny Otabil - A&M-SA - Master's in WaTR – Fall 2024 - graduated 2025
2. Sarah Palmeri - A&M-SA - Master's in Biology – Fall 2024 - graduated 2025
3. Angela Roth - A&M-SA - Master's in Biology – Fall 2024 - present
4. MD Imran Hasan - A&M-SA - Master's in Biology – Spring 2024 - [graduated](#) 2025
5. Infiniti Alvarez - A&M-SA - Master's in Biology – Spring 2024 - graduated 2025
6. Julie Scott – A&M-SA - Master's in WaTR – Jan 2022 - [graduated](#)
7. Kimia Ahmadeyeh - A&M-SA - Master's in WaTR - Fall 2023 - graduated
8. Aron Valdez - Master's in Biology - Texas State University - Fall 2023 - graduated
9. Austin McBrady - Master's in WaTR - A&M-SA - Fall 2023 - [graduated](#)
10. Jillin Sotomayor-Requena – Master's in WaTR – A&M-SA - Jan 2022 - graduated

Visiting Scholar and External Student Mentoring and Supervision

1. Andre Felton - UTSA - PhD in Biology - Spring 2024 - present
2. Prof. Erick Butler - Visiting Scholar - WTAMU - Summer 2025, 2026
3. Jasper van Bemmelen - Ph.D. in Mathematics - TU Delft, The Netherlands - Spring 2023
4. Prof. Luz Breton Deval - Visiting Scholar - UNAM - Fall 2023

Undergraduate Research Student Mentoring (>100s Additional UG students mentored in CURE courses)

1. Taryn Bello - Summer 2026 - INSPIRE REU
2. Stalayah Crawford - Summer 2026 - INSPIRE REU
3. Brystal Flemming - Summer 2026 - INSPIRE REU

4. Nika Farivar Mohseni - Spring 2026
5. Ghadeer Al Asadi - Spring 2026 - present
6. Jaime Hunt - Spring 2026 - present
7. Sean Pagay Icuspit - Spring 2026 - present
8. Veronica "Ronnie" Morales - Spring 2026
9. Brenda Garcia - A&M-SA - Spring 2025. Graduated.
10. Megan Sosa - A&M-SA - Spring 2025 to Fall 2025. Graduated. Current Master's student at A&M-SA
11. Paula Sanchez - A&M-SA - Spring 2025 to Fall 2025. Graduated.
12. Lydia Acosta - A&M-SA - Spring 2025 to May 2025. Currently in Pharmacy School.
13. Deborah Ihe - A&M-SA - Fall 2024 to Spring 2025.
14. Jessica Aguilar - A&M-SA - Summer 2024 to Fall 2024. Graduated.
15. Elizabeth Almendarez - A&M-SA - Summer 2024 to Fall 2024. Current Master's student at A&M-SA
16. Kandace Castellano - A&M-SA - Summer 2024 to Fall 2024. Graduated.
17. Dalia Guerra - A&M-SA - Summer 2024 to Fall 2024. Graduated.
18. Sophia Hernandez - A&M-SA - Summer 2024. Graduated. Current Master's student at A&M-SA
19. Yari Garanzuay - A&M-SA - Spring 2024 to Summer 2024. Graduated.
20. Jocelyn Gutierrez - A&M-SA - Spring 2024 to Summer 2024. Graduated.
21. Frank Handy - A&M-SA - Spring 2024 to Spring 2026.
22. Abriana Ortega - A&M-SA - Spring 2024 to Fall 2024. Graduated.
23. Sakshi Patel - A&M-SA - Spring 2024 to Fall 2024. Graduated.
24. Juliann Sosa - A&M-SA - Spring 2024. Graduated.
25. Guadalupe Rivera Ballin - A&M-SA - Fall 2023. Graduated.
26. Joshua Rath - A&M-SA - Fall 2023 to Summer 2024. Graduated. Applying to Medical School.
27. Lauren Esp - A&M-SA - Fall 2023 to August 2025. Graduated. Current Master's student at UT Health
28. Gabriel Perez - A&M-SA - Summer 2023 to Fall 2023. Graduated.
29. Robert Garcia - A&M-SA - Summer 2023 to Fall 2023. Current Master's student at A&M-SA
30. Zuleika Ceja - A&M-SA - Spring 2023 to 2024. Graduated
31. Mariah Mabanag - A&M-SA - Spring 2023.
32. Treife Le - A&M-SA - Spring 2023 to Fall 2023. Graduated.
33. Jasmin Woods - A&M-SA - Spring 2023 to Fall 2023. Graduated and employed as Laboratory Technician.
34. Julianna Sifuentes - A&M-SA - Spring 2023 to Summer 2023. Master's Student at UT Health. Graduated.
35. Jonathan Castro - A&M-SA - Spring to Summer 2023. Master's Student at UT Health. Stanford PhD student
36. Alexandra Sanchez - A&M-SA - Spring 2023. Graduated.
37. Brianna Garcia - A&M-SA - Spring 2023 to Summer 2023. Graduated. Served as a volunteer.
38. Dennis Castro - A&M-SA - Spring 2023 to Summer 2023. Graduated. Master's student at A&M-SA
39. Jelanie Cisneros - A&M-SA - Fall 2022 to Summer 2023. Graduated.
40. Ruby Apolinar - A&M-SA - Fall 2022 to Spring 2023. Graduated.
41. Alessandra Garcia - A&M-SA - Fall 2022. Graduated.

42. Melissa Luna - A&M-SA - Fall 2022. Graduated.
43. Justin Sanford - A&M-SA - Fall 2022 to Summer 2024. Graduated.
44. Michael Walik - A&M-SA - Fall 2022 to Fall 2023. Masters of Epidemiology at University of Washington.
45. Rebecca McGehee - A&M-SA - Spring 2022 to Summer 2024 - co-mentored with Dr. Chris Mares
46. Stephanie Davidson - A&M-SA - Spring 2022 to Fall 2023. Graduated and working at LabCorp
47. "Pantera" Perez - A&M-SA - Summer 2022.
48. Casandra Maldonado - A&M-SA - Spring 2022 to Spring 2023. Working at San Antonio Water System.
49. Destiny Guerra - A&M-SA - Spring 2022 to Summer 2023. Working at the Edwards Aquifer Alliance.
50. Gregory Kasriel - A&M-SA - Spring 2022.
51. Casey Reyes - A&M-SA - Spring 2022 to Spring 2025. Graduated.
52. Molly Metz – TNS - 2018-2021. In Occupational Therapy Program.
53. Wes Thomason – TNS - 2020-2021. PhD student.
54. Kaitlyn Bushfield – TNS - 2020-2021. Technician in the Florian Krammer Lab. PhD student.
55. Ethyn Maki – TNS – 2019-2020. Completed Masters at the University of York.
56. Emma Letcher – TNS – 2019-2020.
57. Annabelle Adams-Beyea – TNS – 2019-2020. PhD student.
58. Leah Hughes – TNS – 2020-2021.
59. Lauren Higa – TNS – 2018.
60. Simon Chen – TNS – 2019-2021.
61. Janelly Eralte – Mercy College – 2016-2018. Certified Nursing Assistant.
62. Natalia Tumidajski – Mercy College – 2016-2018. Senior Research Scientist at Exocel Bio Regenerative Med.
63. Natalie Vegas - Mercy College – 2016-2018. Working as a Veterinary Technologist.
64. Bien Porconi - Mercy College – 2016-2018. Working as a Clinical Laboratory Technologist.
65. Manuela Hoyos – CityTech 2012-2014. Research Data Warehouse Programmer I
66. Ayesha Rasool – CityTech 2012-2014. Senior NGS Data Analyst, Regeneron
67. Kenny Tsang – CityTech 2012-2014. Scientist III - Bioinformatician at Boehringer Ingelheim
68. Fabiola Fontaine - CityTech 2012-2014. Physician's Assistant.
69. Minni Lam - CityTech 2012-2014. President at I' Milky Management Inc

High School Research Student Mentoring

1. Keystone Team - SA Smart - 2022
2. Vicky Yan – Stuyvesant High School - UBRP – 2019-2020
3. Rita Chen – Stuyvesant High School - UBRP – 2018-2019
4. Michelangelo Pagan – Stuyvesant High School - UBRP – 2018-2019
5. Kristoff Misquitta – Stuyvesant High School - UBRP – 2018-2019
6. Joanna Tan – Stuyvesant High School - UBRP – 2017-2018
7. Siyue Zhu – Stuyvesant High School - UBRP – 2017-2018

RESEARCH

Research Awards

2024-2026	Selected as ASM Distinguished Lecturer - served a 2-year term
2021	Nominated for the College of Arts and Sciences Outstanding Scholarship Award
2003	Marie Curie Fellowship - 6-month fellowship in the Mark Enright Lab at the University of Bath
2003 – 2005	Teagasc Walsh Fellowship for PhD research
2003	President's Prize for the Best Oral Presentation by a Young Scientist at the 57th Annual Conference of the Association of Veterinary Teachers and Research Workers (AVTRW)
2003	Association of Veterinary Teachers and Research Workers (AVTRW) Travel Award
2003	Federation of European Microbiological Societies (FEMS) Junior Travel Grant
2002	International Symposium on Staphylococci and Staphylococcal Infections (ISSSI) Travel Award
2002	Best Poster award at the 32nd Annual Irish Food Science and Technology Research Conference

Peer-Reviewed Papers, eBooks, and Book Chapters

\$ denotes postdoc # denotes graduate student, and * denotes undergraduate students. My h-index is 27, i10 index is 40, and I have 3086 total citations. My ORCID ID: <https://orcid.org/0000-0002-4049-0337>

1. **The Wastewater-Based Surveillance Lorentz Consortium** (2026). Eight key questions for advancing wastewater-based pathogen surveillance for public health emergencies. Accepted at IWA Journal of Water & Health.
2. Teufel, A., Hassan, I., **Smyth, D.S** (2026) Selective Pressures Shaping the PTM Landscape of the Influenza Proteome. 18(6) evag134. <https://doi.org/10.1093/gbe/evag134>
3. **MoBE Consortium (2026)**. Core Principles for Responsible Development of Microbiome Engineering in the Built Environment. The Journal of Responsible Innovation.13 (1), 2675073
4. **Smyth DS**, Donovan S, Lenahan M, DeFeo D, Fuller K, Goulet TL, Hamerlinck G, Harrison E, Reeves-Pepin J, Rissler H, Uno G. (2026). From BioSkills to LifeSkills—a framework for developing life skills for non-science majors in introductory life science courses. J Microbiol Biol Educ. 27:e00002-26.<https://doi.org/10.1128/jmbe.00002-26>
5. Hassan MI, **Smyth DS** and Teufel, AI (2025). Network Analysis of Antimicrobial Resistance in *Staphylococcus aureus*: Identification of Hub Genes and Potential Therapeutic Targets. Volume 7, Issue 4, December 2025, lqaf147, <https://doi.org/10.1093/nargab/lqaf147>
6. Den, W. and **Smyth, D.S.** (2025). How Texas could lead the nation in addressing a growing water workforce problem. Texas Water Journal. 16(1) 80-92.
7. Boury, N., Siegesmund, A., Kushner, D.B., **Smyth, D.S.**, Allen, M.E., Frazier, A., Gillette-Ferguson, I., Markum M., Patriquin, G., Reynolds, S.E., Rosario, S., Steel, J.J., and Horak R.O. (2024). Updated ASM Curriculum Guidelines describe core microbiology content to modernize the framework for microbiology education. J Microbiol Biol Educ. 0:e00126-24.<https://doi.org/10.1128/jmbe.00126-24>

8. Mendoza-Sanchez, I., **Smyth, D.S.**, Mendez, M.O., Pearl, T., Rifai, H., Howell, N., and Butler, E. (2024). Deployment of wastewater-based public health monitoring systems in small rural communities of Texas. *Journal of Contemporary Water Research & Education*. 180:37-68.
9. Van Bemmelen, J., **Smyth, D.S.**, and Baaijens, J.A. (2024). AmpliDiff: An Optimized Amplicon Sequencing Approach to Estimating Lineage Abundances in Viral Metagenomes. **25**, 126 (2024). <https://doi.org/10.1186/s12859-024-05735-4>
10. Cancela, F., Ramos, N., **Smyth, D.S.**, Etchebehere, C., Berois, M., Rodríguez, J., Rufo, C., Alemán, A., Borzacconi, L., López, J., González, E., Botto, G., Mirazo, S., & Trujillo, M. (2023). Wastewater surveillance of SARS-CoV-2 genomic populations on a country-wide scale through targeted sequencing. *PLoS ONE* 18(4): e0284483. DOI: [10.1371/journal.pone.0284483](https://doi.org/10.1371/journal.pone.0284483)
11. Skanata, A., Spagnolo, F., Metz, M., **Smyth, D.S.** and Dennehy, J.J. (2022). Humidity Reduces Rapid and Distant Airborne Dispersal of Viable Viral Particles in Classroom Settings. *Environ. Sci. Technol. Lett.* 2022, 9, 7, 632–637. DOI: doi.org/10.1021/acs.estlett.2c00243
12. Hoar, C., Chauvin, F., Katehis, D., Clare, A., McGibbon, H., Castro, E., Patinella, P., Dennehy, J.J., Trujillo, M., **Smyth, D.S.** and Silverman, A. (2022). Monitoring SARS-CoV-2 in wastewater during New York City's second wave of COVID-19: Sewershed-level trends and relationships to publicly available clinical testing data. *Environ. Sci.: Water Res. Technol.* 8 1021-1035. DOI: doi.org/10.1039/D1EW00747E
13. Conefrey, T. and **Smyth, D.S.** ePortfolios to promote equity, engaged learning, and professional identity development in STEM. (2023). [Special issue on ePortfolios Across the Disciplines] *Across the Disciplines*, 20(3/4), 110-134, <https://doi.org/10.37514/ATD-J.2023.20.3-4.07>
14. Narayanan, M., Powers, K., Nagaraj, R., Liou-Mark, J., **Smyth, D. S** and Knopp-Kelly, M. (2023). Peer leader perspectives from a randomized PLTL implementation in a Hispanic Serving Institution. *Journal of Microbiology and Biology Education* 24(3) e00075-23. DOI:doi.org/10.1128/jmbe.00075-23.
15. **Smyth, D.S.**, Jordan, T., Seiser, R., Moran, M., Hasagar, U., Sorby, S., Kahl, N., Shachter, A. and Oates, K. (2023). Promoting RAPID Vaccine Science Education at the Onset of the COVID-19 Pandemic. *Journal of Microbiology and Biology Education* 24(2) e00051-23. DOI:doi.org/10.1128/jmbe.00051-23
16. Kirby, A.E., Welsh, R.M., Marsh, Z.A., Yu, A.T., Vugia, D.J., Boehm, A.B., Wolfe, M.K., White, B.J., Matzinger, S.J., Wheeler, A., Bankers, L., Andresen, K., Salatas, C., NYC DEP, Gregory, D.A., Johnson, M.C., Trujillo, M., Kannoly, S., **Smyth, D.S.**, Dennehy, J.J., Sapoval, N., Ensor, K., Treangen, T., Stadler, L.B., Hopkins, L. (2022) Early Evidence of SARS-CoV-2 Omicron Variant in Community Wastewater. *MMWR*. 71(3);103–105 DOI: [dx.doi.org/10.15585/mmwr.mm7103a5](https://doi.org/10.15585/mmwr.mm7103a5)
17. **Smyth, D.S.**, Trujillo, M., Gregory, D., Cheung, K, Gao, A., Graham, M., Guan, Y., Hoxie, I., Kannoly, S., Kubota, N., Markman, Rushford, C., M., Myat San, K., Sompanya, G., Spagnolo, F., Suarez, R., Teixeira, E., Daniels, M., Johnson, M.C., and Dennehy, J.J. (2022). Tracking Cryptic SARS-CoV-2 Lineages Detected in NYC Wastewater. *Nature Communications*. 13(635). DOI: doi.org/10.1038/s41467-022-28246-3
18. **Smyth, D.S.**, Chen, S*, Sompanya, G., Metz, M. and Conefrey, T. (2022). How getting friendly with bacteria can promote student appreciation of microbial diversity and their civic scientific literacy. *Journal of Microbiology and Biology Education* 23(2) e00055-22. DOI: doi.org/10.1128/jmbe.00055-22

19. Trujillo, M., Cheung, K, Gao, A., Hoxie, I., Kannoly, S., Kubota, N., Myat San, K., **Smyth, D.S.** and Dennehy, JJ. (2021). Protocol for Safe, Affordable, and Reproducible Isolation and Quantitation of SARS-CoV-2 RNA from Wastewater. PLOS ONE 16(9): e0257454. I am a co-corresponding author.
20. **Smyth, D.S.** and Conefrey, T. (2021). High-Impact Practices for Transforming Online Learning During COVID-19. Journal of Higher Education Theory and Practice. 21(6) DOI: doi.org/10.33423/jhetp.v21i6.4377
21. Goller, C., Vendegrift, M., Cross, W and **Smyth, D.S.** (2021). Annotating and Co-creating with Hypothes.is and Google Docs. Journal of Microbiology and Biology Education. 22(1):22.1.2 DOI: doi.org/10.1128/jmbe.v22i1.2135
22. Nguyen, A.V., Li, G., Mata, D., Bermudes, O., Fernandez, M., Pubhill, K., Santana, J., Kim, W., Chimbay, E., Eralte, J.* , Metz, M.* , **Smyth, D.**, Orlofsky, A., and Khan, M. (2020). Using Isothermal Loop Amplification (LAMP) as a Tool to Involve Undergraduates in High-Impact Educational Practice. Frontiers in Microbiology. 11: 603381. DOI: [10.3389/fmicb.2020.603381](https://doi.org/10.3389/fmicb.2020.603381)
23. Conefrey, T., & Smyth, D. (2020). Reflecting, Integrating, and Communicating Knowledge Through ePortfolios to Increase Civic and Scientific Literacy. International Journal of EPortfolio, 10(1), 1–18.
24. Banks, M.#, Metz, M.* , and **Smyth, D.S.** (2020). The sustainability challenges facing research and teaching laboratories when going green. Environment: Science and Policy for Sustainable Development, 62(2):4-13. DOI: doi.org/10.1080/00139157.2020.1708166
25. **Smyth, D.S.** (2020). COVID-19, Ebola, Measles: Achieving sustainability in the era of emerging and reemerging infectious diseases. Environment: Science and Policy for Sustainable Development, 62:6, 31-40. DOI: doi.org/10.1080/00139157.2020.1820295
26. Perez, S., Seto, J., **Smyth, D.S.** and Parker, D. (2020). Biological sex influences susceptibility to *Acinetobacter baumannii* pneumonia in mice. JCI Insight 5(7):e132223 DOI: [10.1172/jci.insight.132223](https://doi.org/10.1172/jci.insight.132223)
27. Letcher, E.* and Smyth D.S. (2019) Hitchhikers in Honey: An investigation of the inhibitory mechanisms of bacteria found in honey. Journal of Student Research. 8(2):1-4. DOI: doi.org/10.47611/jsr.v8i2.795
28. Yust, A. and **Smyth, D.S.** (2019). Simulating Bacterial Growth, Competition, and Resistance with Agent-Based Models and Laboratory Experiments. In *An Introduction to Undergraduate Research in Computational and Mathematical Biology: From Birdsongs to Viscosities*, Edited by Hannah Callender Highlander, Alex Capaldi, and Carrie Diaz Eaton. Birkhauser.
29. Sieg, D., Beverly, N., Narayanan, M., Sabbatini, J., Surendran, G., and **Smyth, D.S.** (2019). Incubating the SENCER ideals with project-based learning and undergraduate research: perspectives from two liberal arts institutions. Science Education and Civic Engagement: An International Journal. 11(1):50-63.
30. **Smyth, D.** An authentic course-based research experience in antibiotic resistance and microbial genomics. Science Education and Civic Engagement: An International Journal. 2017 8(2):59-65.
31. But, J., Brown, P.A., and **Smyth, D.S.** Reading Effectively Across the Disciplines (READ): A Strategy to Improve Student Success. Insight: A Journal of Scholarly Teaching. 2017. 12:30-50.
32. Martínez-Rubio R, Quiles-Puchalt N, Martí M, Humphrey S, Ram G, **Smyth D**, Chen J, Novick RP, Penadés JR. Phage-inducible islands in the Gram-positive cocci. ISME J. 2016 Dec 13. PubMed PMID: 27959343. doi.org/10.1038/ismej.2016.163

33. Rose HR, Holzman RS, Altman DR, **Smyth DS**, Wasserman GA, Kafer JM, Wible M, Mendes RE, Torres VJ, Shopsin B. Cytotoxic Virulence Predicts Mortality in Nosocomial Pneumonia Due to Methicillin-Resistant *Staphylococcus aureus*. J Infect Dis. 2015 Jun 15;211(12):1862-74. PubMed PMID: 25298028. DOI: [10.1093/infdis/jiu554](https://doi.org/10.1093/infdis/jiu554)
34. Mendes RE, Deshpande LM, **Smyth DS**, Shopsin B, Farrell DJ, Jones RN. Characterization of methicillin-resistant *Staphylococcus aureus* strains recovered from a phase IV clinical trial for linezolid versus vancomycin for treatment of nosocomial pneumonia. J Clin Microbiol. 2012 Nov;50(11):3694-702. PubMed PMID: 22972817. DOI: [10.1128/JCM.02024-12](https://doi.org/10.1128/JCM.02024-12)
35. **Smyth DS**, Kafer JM, Wasserman GA, Velickovic L, Mathema B, Holzman RS, Knipe TA, Becker K, von Eiff C, Peters G, Chen L, Kreiswirth BN, Novick RP, Shopsin B. Nasal carriage as a source of *agr*-defective *Staphylococcus aureus* bacteremia. J Infect Dis. 2012 Oct;206(8):1168-77. PubMed PMID: 22859823. DOI: [10.1093/infdis/jis483](https://doi.org/10.1093/infdis/jis483)
36. Chen L, Shopsin B, Zhao Y, **Smyth D**, Wasserman GA, Fang C, Liu L, Kreiswirth BN. Real-time nucleic acid sequence-based amplification assay for rapid detection and quantification of *agr* functionality in clinical *Staphylococcus aureus* isolates. J Clin Microbiol. 2012 Mar;50(3):657-61. PubMed PMID: 22219302. DOI: [10.1128/JCM.06253-11](https://doi.org/10.1128/JCM.06253-11)
37. **Smyth DS**, Wong A, Robinson DA. Cross-species spread of SCCmec IV subtypes in staphylococci. Infect Genet Evol. 2011 Mar;11(2):446-53. doi: 10.1016/j.meegid.2010.12.005. PubMed PMID: 21172458. DOI: [10.1016/j.meegid.2010.12.005](https://doi.org/10.1016/j.meegid.2010.12.005)
38. Guinane CM, Ben Zakour NL, Tormo-Mas MA, Weinert LA, Lowder BV, Cartwright RA, **Smyth DS**, Smyth CJ, Lindsay JA, Gould KA, Witney A, Hinds J, Bollback JP, Rambaut A, Penadés JR, Fitzgerald JR. Evolutionary genomics of *Staphylococcus aureus* reveals insights into the origin and molecular basis of ruminant host adaptation. Genome Biol Evol. 2010 Jul 12; 2:454-66. PubMed PMID: 20624747. DOI: [10.1093/gbe/evq031](https://doi.org/10.1093/gbe/evq031)
39. Chen L, Mediavilla JR, **Smyth DS**, Chavda KD, Ionescu R, Roberts RB, Robinson DA, Kreiswirth BN. Identification of a novel transposon (Tn6072) and a truncated staphylococcal cassette chromosome *mec* element in methicillin-resistant *Staphylococcus aureus* ST239. Antimicrob Agents Chemother. 2010 Aug;54(8):3347-54. PubMed PMID: 20479198. DOI: [10.1128/AAC.00001-10](https://doi.org/10.1128/AAC.00001-10)
40. **Smyth DS**, McDougal LK, Gran FW, Manoharan A, Enright MC, Song JH, de Lencastre H, Robinson DA. Population structure of a hybrid clonal group of methicillin-resistant *Staphylococcus aureus*, ST239-MRSA-III. PLoS One. 2010 Jan 5;5(1):e8582. PubMed PMID: 20062529. DOI: [10.1371/journal.pone.0008582](https://doi.org/10.1371/journal.pone.0008582)
41. Wong A, Reddy SP, **Smyth DS**, Aguero-Rosenfeld ME, Sakoulas G, Robinson DA. Polyphyletic emergence of linezolid-resistant staphylococci in the United States. Antimicrob Agents Chemother. 2010 Feb;54(2):742-8. PubMed PMID: 19933808. DOI: [10.1128/AAC.00621-09](https://doi.org/10.1128/AAC.00621-09)
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44. **Smyth DS**, Feil EJ, Meaney WJ, Hartigan PJ, Tollersrud T, Fitzgerald JR, Enright MC, Smyth CJ. Molecular genetic typing reveals further insights into the diversity of animal-associated *Staphylococcus aureus*. J Med Microbiol. 2009 Oct;58(Pt 10):1343-53. PubMed PMID: 19528163. DOI: [10.1099/jmm.0.009837-0](https://doi.org/10.1099/jmm.0.009837-0)
45. Moise PA, **Smyth DS**, Robinson DA, El-Fawal N, McCalla C, Sakoulas G. Genotypic and phenotypic relationships among methicillin-resistant *Staphylococcus aureus* from three multicentre bacteremia studies. J Antimicrob Chemother. 2009 May;63(5):873-6. PubMed PMID: 19261624. DOI: [10.1093/jac/dkp047](https://doi.org/10.1093/jac/dkp047)
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47. McCalla C, **Smyth DS**, Robinson DA, Steenbergen J, Luperchio SA, Moise PA, Fowler VG Jr, Sakoulas G. Microbiological and genotypic analysis of methicillin-resistant *Staphylococcus aureus* bacteremia. Antimicrob Agents Chemother. 2008 Sep;52(9):3441-3. PubMed PMID: 18606839. DOI: [10.1128/AAC.00357-08](https://doi.org/10.1128/AAC.00357-08)
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50. Moise PA, **Smyth DS**, El-Fawal N, Robinson DA, Holden PN, Forrest A, Sakoulas G. Microbiological effects of prior vancomycin use in patients with methicillin-resistant *Staphylococcus aureus* bacteremia. J Antimicrob Chemother. 2008 Jan;61(1):85-90. PubMed PMID: 18042628. DOI: [10.1093/jac/dkm445](https://doi.org/10.1093/jac/dkm445)
51. O'Neill E, Pozzi C, Houston P, **Smyth D**, Humphreys H, Robinson DA, O'Gara JP. Association between methicillin susceptibility and biofilm regulation in *Staphylococcus aureus* isolates from device-related infections. J Clin Microbiol. 2007 May;45(5):1379-88. PubMed PMID: 17329452 DOI: [10.1099/jmm.0.46878-0](https://doi.org/10.1099/jmm.0.46878-0)
52. **Smyth DS**, Meaney WJ, Hartigan PJ, Smyth CJ. Occurrence of *ssl* genes in isolates of *Staphylococcus aureus* from animal infection. J Med Microbiol. 2007 Mar;56(Pt 3):418-25. PubMed PMID: 17314375. DOI: [10.1099/jmm.0.46878-0](https://doi.org/10.1099/jmm.0.46878-0)
53. **Smyth DS**, Kennedy J, Twohig J, Miajlović H, Bolton D, Smyth CJ. *Staphylococcus aureus* isolates from Irish domestic refrigerators possess novel enterotoxin and enterotoxin-like genes and are clonal in nature. J Food Prot. 2006 Mar;69(3):508-15. PubMed PMID: 16541679. DOI: [10.4315/0362-028x-69.3.508](https://doi.org/10.4315/0362-028x-69.3.508)
54. **Smyth DS**, Hartigan PJ, Meaney WJ, Fitzgerald JR, Deobald CF, Bohach GA, Smyth CJ. Superantigen genes encoded by the *egc* cluster and SaPIbov are predominant among *Staphylococcus aureus* isolates from cows, goats, sheep, rabbits, and poultry. J Med Microbiol. 2005 Apr;54(Pt 4):401-11. PubMed PMID: 15770028. DOI: [10.1099/jmm.0.45863-0](https://doi.org/10.1099/jmm.0.45863-0)

Peer-Reviewed Editorials

1. **Smyth, DS.** Using Issues of Water to CURE your Teaching: STEM Education is Civic Education. JMBE. 0:e00110-26. <https://doi.org/10.1128/jmbe.00110-26>
2. Zhao Q, Sen B, **Smyth DS**, Cônsoli FL.(2025) Editorial: Insights in systems microbiology: 2022/2023. *Front Microbiol.* 15:1538030. doi: 10.3389/fmicb.2024.1538030.
3. Goller, C. C., Carroll Alexander, C., Marsteller P., **Smyth, D. S.**, and Deal A.L. (2024). Editorial: Using case study and narrative pedagogy to guide students through the process of science. *Front. Microbiol.* 15:1490868. doi: 10.3389/fmicb.2024.1490868
4. **Smyth, D. S.**, Broderick, N. A., & Goller, C. C. (2023). Editorial: Community series in tools, techniques, and strategies for teaching in a real-world context with microbiology, volume II. *Frontiers in Microbiology*, 14. DOI: doi.org/10.3389/fmicb.2023.1156805
5. **Smyth, D.**, Broderick, N. A., Bowater, L., Goller, C. C., eds. (2021). Tools, Techniques, and Strategies for Teaching in a Real-World Context With Microbiology. Lausanne: Frontiers Media SA. <https://doi.org/10.3389/fmicb.2023.1156805>

In Review

- Genome Sequences of Twelve *Klebsiella pneumoniae*-Infecting Bacteriophages. In Review at MRA.

In Preparation/In Revision

- Guillen Castro, D., Garcia, R., Castro, J. Breton Duval, L., and **Smyth D.S.** Impact of urban land development on soil microbial diversity and antimicrobial production. In review at Microbiology Spectrum
- Teufel, A and **Smyth, DS.** Stochastic Modeling of MRSA Persistence Under Immigration and Antibiotic Pressure
- Abongwa, P., Den, W., **Smyth, D.S.** Hung-Hsiang (Jackie) Chen. Water Quality Monitoring and Characterization of Chemical and Biological Contamination in the Edwards Aquifer Recharge Zone. In preparation.
- **Smyth, D.S.** Saxena, S., Thornhill, S., Guerra, D., Maldonado, C., and Den, W. Robotics, Automation, and the Future of Microbial Source Tracking in the Era of Pandemics. In revision.
- Co-author with Team IGELs. Out of sight, out of mind? The impact of *Vision and Change* on undergraduate General Education Life Science courses. In preparation for ABT.
- **Smyth, D.S.**, and Goller C. Microbiomes for All Starts with Your Budget. In preparation for Frontiers in Microbiology.
- Narayanan, M., Powers, K., Nagaraj, R., Liou-Mark, J., **Smyth, D. S** and Knopp-Kelly, M. Lessons learned from a randomized control study of PLTL in a minority serving institution. In preparation for CBE Life Sciences.
- **Smyth, D.S.** and Reilly, E. Colleges as Ecosystems. In preparation for the Journal of Microbiology and Biology Education.

Conference Papers, Book Reviews, and Other Publications

1. **Smyth, D.S.** and ASM TaskForce 2.0 (2024). New ASM Curriculum Guidelines Foster Microbial Literacy.

<https://asm.org/articles/2024/august/new-asm-curriculum-guidelines-foster-microbial-lit>

2. **Smyth, D.S.** Microbes: The Life-Changing Story of Germs. *The Quarterly Review of Biology*. 2022. 97(3) 219-220.
3. **Smyth, D.S.** and Yust A. Practicing and Simulating Social Distance. In *Science Education and Civic Engagement: An International Journal*. 2020 12(2):80-81.
4. **Smyth, D. S.** Silent Travelers. In *Science Education and Civic Engagement: An International Journal*. 2019 11(1):50-63. Book Review.
5. **Banks, M., Smyth, D.S.** (2018). Pathogens and plastic: Sustainable Science at TNS. Available from <https://www.tishmancenter.org/blog/pathogens-and-plastic-sustainable-science-at-the-new-school>
6. **Smyth, D.S.,** and others from TNS. (2018). How To Close The Gap: What We Need To Do and What We Actually Do About Climate Change. <https://medium.com/@TheNewSchool/winning-slowly-is-the-same-as-losing-bf69a6e8bde2>
7. **Smyth, D.S. (2016).** How mighty microbes and genomics can be used to make biology relevant to our students. Published in the Fall Newsletter of the Empire State Association of Two-Year College Biologists.
8. **Smyth, D. S (2014).** Antibacterials In Building Products: The Good, The Bad and the Downright Ugly. <http://www.healthybuilding.net/news/2014/11/19/antibacterials-in-building-products-the-good-the-bad-...>
9. Rasool, A., & **Smyth, D.** (2014). Promoting Critical Thinking Through Bloom's Taxonomy in Biology 1101 Peer-Led Workshops. Conference Proceedings of the Peer-Led Team Learning International Society, May 29-31, California State University at Dominguez Hills, www.pltlis.org; ISSN 2329-2113. Conference Paper.
10. Smyth, C.J., **Smyth, D.S.,** Kennedy, J., Twohig, J. and Bolton D. (2004). *Staphylococcus aureus*: from man or animals—an enterotoxin iceberg? B. Maunsell, J. Sheridan, D.J. Bolton (Eds.), *Food Pathogen Epidemiology: Microbes, Maladies, and Methods*, Proceedings of an International EU-RAIN Conference, 3–4 December Padua (Italy), Teagasc - The National Food Center, Dublin (2004), pp. 85-102

Textbook under construction

1. **Smyth's Microbiology.** Oxford University Press.

Funded Research Grants while at A&M-SA

PI indicates principal investigator, Co-PI indicates co-principal investigator

Internal (\$50000 since 2021)

- | | |
|------|--|
| 2025 | College of Arts and Science College Grant- From SARS-CoV-2 to Superbugs: How understanding aerosols can help us prevent airborne infection in classroom settings. (\$10000) – PI |
| 2024 | Research Council Award- Water Quality Monitoring and Characterization of Chemical and Biological Contamination in the Edwards Aquifer Recharge Zone (\$10000) – PI |
| 2022 | College of Arts and Science College Grant- From SARS-CoV-2 to Superbugs: How wastewater surveillance can be used to monitor community transmission of antibiotic-resistant microbes (\$10000) – PI |
| 2021 | College of Arts and Science College Grant- Collaborative development of alternative animal-free models for infection and immunology research (\$10000) – Co-PI |

2021 Research Council Award- Collaborative development of alternative animal-free models for infection and immunology research (\$10000) – PI

External (\$2,038,448.8 since 2021)

- 2025 Texas A&M AgriLife Research Insect Vector Disease Seed Grant program: “Innovating tick detection: A novel biosurveillance method to detect invasive ticks” (\$279180.8) - Co-PI.
- 2025 NSF REU: INSPIRE: Increasing Student Participation in Research Experiences (\$372000) - PI
- 2024 NSF Subaward - Addressing Water Security: towards Student Retention, Improved Relevance, and Increased Readiness (\$59981) – PI
- 2024 NSF HSI Implementation and Evaluation Project: Green Chemistry: Advancing Equity, Relevance, and Environmental Justice (\$797,664) - Co-PI. Subaward to NCSCE. Cancelled by NSF in 2025.
- 2023 Texas Ecological Laboratory Program – Submitted by mentee Dennis Guillen Castro (\$6850) – Mentor
- 2023 NSF - Collaborative Research: HSI Pilot Project: WaTR3: Retention, relevance, and readiness through bridging water security issues in San Antonio (\$299973) – PI
- 2025 Secured anonymous donation to the National Center for Science and Civic Engagement to support Wastewater Based Education Fellows Program (\$20000) - Co-PI
- 2024 Secured anonymous donation to the National Center for Science and Civic Engagement to support Wastewater Based Education Fellows Program (\$20000) - Co-PI
- 2023 Secured anonymous donation to the National Center for Science and Civic Engagement to support Wastewater Based Education Fellows Program (\$60000) - Co-PI
- 2022 NSF S-STEM Subaward with Walter Den from the University of Virginia (\$15000) - Co-PI
- 2022 Secured anonymous donation to the National Center for Science and Civic Engagement to support Wastewater Based Education and Conference (\$30000) - Co-PI
- 2022 Texas Ecological Laboratory Program – Submitted by mentee Gloria Rodriguez (\$5000) – Mentor
- 2021 Texas Ecological Laboratory Program – Submitted by mentee Ariel Robles (\$3800) – Mentor
- 2021 Secured contract with New York City Department of Environmental Protection to support Wastewater Epidemiology and Microbial Source Tracking (\$69000) – PI

Congressional Appropriations Request

- 2025 Tracking Waterborne Microbial Contaminants of Concern in Bexar County - Request made by Congressman Castro FY2026 (\$1,000,000) <https://appropriations.house.gov/sites/evo-subsites/republicans-appropriations.house.gov/files/evo-media-document/fy26-commerce-justice-and-science-cpf-table-updated.pdf> - funded
- 2024 Tracking Waterborne Microbial Contaminants of Concern in Bexar County - Request made by Congressman Castro FY2025 (\$1,000,000) <https://castro.house.gov/fy2024-community-project-requests>

Submitted External Grants at A&M-SA (As PI/co-PI/Co-I)

- 2025 NSF Mechanistic ODE Discovery by Genetic Algorithms with LLM-Guided Mutation and Crossover - submitted - CoPI with Ashley Teufel
- 2025 NSF IUSE Collaborative Research: Building a CURE to Understand the Link between Genotypes and

- Phenotypes (\$24000) - submitted Jan, returned
- 2024 MCI Pilot PUI: Combined air and waterborne surveillance for the detection of pathogenic microbes and predatory phages (\$326580) - submitted Mar. PI. Not funded
- 2024 NSF: Collaborative Research: Center: IUSE Center: Broadening Participation and Diversifying Who Generates and Uses Undergraduate STEM Education Research (Broader) (\$536265) - submitted Nov. Not funded
- 2024 NRT: Converging three Texas A&M System Satellite Campuses to address regional water issues through graduate workforce training and Ph.D. preparation (\$200000) - submitted Nov. Not funded.
- 2023 NSF-PIPP Phase II: Theme 2: EPICENTER: Emerging Pathogen Intelligence and Crisis Evaluation Network for Targeted Effective Response. Co-Investigator. Not funded.
- 2023 EPA - Establishing a framework for identifying and surveilling known and emergent sources of antibiotic resistance determinants in rural and suburban Texas - PI on subaward to A&M-SA - not funded.
- 2023 Texas Water Resources Institute Faculty Fellows Program - not funded.
- 2023 USDA-NIFA-CGP-009582 - Soil Environmental and Agricultural Data Education Society (SEADES): Using a Course-Based Undergraduate Research Experience for Student Sourced Soil Surveillance-Co-PI - not funded - resubmitting
- 2022 NSF Critical Zone Research Microbial, geochemical, and stable isotope controls on organometal(loid)s cycling in a karst watershed with Dr. Pride Abongwa - submitted to NSF - not successful, revising.
- 2022 NSF Building Climate Change Resilience through Community-Focused Innovation to Mitigate a Eutrophic Lake in the Underserved Southside of San Antonio, Texas with Dr. Walter Den - not successful, revising.
- 2022 CSP23 Joint Genome Institute - Duckweed microbiomes for maximizing bioremediation potential and educational impact. With Theodore Muth and Carlos Goller - not successful.
- 2022 Co-PI on FY23 SERDP Core Solicitation with Walter Den and others - not successful.
- 2022 NSF HSI Implementation and Evaluation Project: Green Chemistry: Advancing Equity, Relevance, and Agency through Curricular Innovation – co-PI, revision submitted Aug 30th 2023
- 2022 NSF REU Impact of anthropogenic activity at the Urban/Rural interface (AURI) -submitted to NSF – PI, not successful, revision submitted Sept 1st 2023
- 2022 NSF IUSE Using Green Chemistry and Pharos to make STEM more relevant to underserved students - submitted to NSF – Co-PI, not successful
- 2022 Submitted a white paper for the CDC Broad Agency Announcement 75D301-22-R-72097 - not successful.

Funding & Research Grants Awarded at TNS

- 2021 Secured anonymous donation of \$75000 to the National Center for Science and Civic Engagement to support Wastewater Based Epidemiology projects in the Global South
- 2021 Faculty Research Fund “From PPE to UV: Sustainable solutions for safe reopening” (\$8000) – Co-PI
- 2021 Tishman Center for Environment and Design Faculty Support Grant “Superfunding Education with NYC Waterways” (\$5000) - PI
- 2021 NSF IUSE: Vision and Change in Undergraduate General Education Biology Courses (\$836111) – Co-PI*
- 2021 Intersections and Learning from Informal STEM Learning Assessment Methods for IUE with Judy Koke (\$15000) – Co-PI

- 2020 NSF RCN-UBE: A National Network for Integrating the Study of Microbiomes into Course-based Undergraduate Research Experiences (\$474,610) – Co-PI
- 2020 NSF RAPID: (RAPID: Collaborative Research: Metapopulation Modeling to Develop Strategies to Reduce COVID-19 Transmission in Public Spaces) (\$53288) – PI
- 2020 Student Research Assistant Fund (\$5100) – funded a student research assistant
- 2020 DEP: Phylogenomic and Socioeconomic Correlates of COVID-19 Transmission in NYC (\$10000) - PI
- 2020 Faculty Research Fund “ReLab Plastic” with Dave Marin, SCE (\$5000) – Co-PI
- 2020 Faculty Research Fund “Fabulous Phages in the Fight Against Superbugs” (\$9500) - PI
- 2019 Urban Barcode Research Project (Cold Spring Harbor Lab) Fund – The Honey Microbiome (\$2000) - PI
- 2019 Lang Faculty Opportunity Award – Sequencing the Smoke (\$2300) - PI
- 2019 Student Research Assistant Fund (\$5100) – funded a student research assistant
- 2018 Tishman Center for Environment and Design Faculty Support Grant - Conducting Sustainable Science When Pathogens Take the Stage (\$1500) - PI
- 2018 Urban Barcode Research Project (CSHL) Fund – Sequencing the Smoke (\$2000) - PI
- 2018 Student Research Assistant Fund (\$5100) – funded a student research assistant

Submitted Grants at TNS

- 2021 2020 HIFI For All – Collaborations SMRT Grant Program (\$5000). Not funded
- 2020 SPRI Grant for Genomic Research (\$5000). Not funded
- 2020 Ocean Insight Grant Program (\$20000). Not Funded
- 2020 Simons Foundation COVID Microgrant (\$20000). Not funded
- 2020 NIH R21: Understanding Pathogen Transmission in the Built Environment Using a Hybrid Computational and Experimental Approach (\$404,060) – PI. New Submission. Not Funded
- 2020 NIH R21: Understanding SARS-CoV-2 Transmission in the Built Environment Using a Hybrid Computational and Experimental Approach (\$473080) – PI. Not funded
- 2020 NIH R21: Collaborative Research: Phylogenomic and Socioeconomic Correlates of COVID-19 Transmission in NYC (\$127613) – Co-Investigator. Not funded.

Research and Equipment Grants awarded at Mercy College and CityTech (\$215,097 from 2012-2016)

- 2018 HHMI Inclusive Excellence Award, Leadership Team Member, Adjunct Academy - \$1 million. Composed the Adjunct Academy component. Served as Adjunct Academy Consultant
- 2017 Mercy Faculty Development Grant “Antimicrobials in Building Products” (\$3000)
- 2017 Mercy College Student/Faculty Research Collaborative Grant (\$1500)
- 2017 Mercy Senate Micro Grant for Student Engagement, “Broadening participation in STEM through high-impact practices: A trio of trips”
- 2016 Department of Defense Grant, Principal Investigator, Mercy Initiative for Undergraduate Research and Education in Genomics, (\$142,771.75) for the components of a genomics system, an Ion S5
- 2016 US Department of Education (P031C160054) Title III HSI STEM and Articulation grant, Peer-Led Team Learning Activity Director - \$4 million. Composed and co-led the PLTL program component. Served as PLTL Consultant

- 2016 Mercy Faculty Development Grant ""Using 'Omics' approaches to investigate the prevalence and persistence of pathogens (P3) in the Mercy Campus" (\$3000)
- 2016 Mercy Micro Grant for Course Redesign, "The Initiative for Research and Education in Genomics: Establishment of DNA Sequencing Facilities at Mercy College Allowing the Redesign of Existing Courses and the Development of New Courses" (\$2445)
- 2016 Mercy Senate Micro Grant for Student Engagement, "Broadening participation in STEM through high-impact practices: A trio of trips"
- 2015 National Center for Scientific and Civic Engagement (NCSCE) SENCER Summer Institute Post Implementation Team Award
- 2015 Mercy Faculty Development Grant (\$3000)
- 2015 Professional Staff Congress CUNY Type C Award (\$3000)
- 2015 Mercy Micro Grant for Course Redesign "Microbiology of the Built Environment"
- 2015 Mercy Senate Micro Grant for Student Engagement, "Broadening participation in STEM through high-impact practices: A trio of trips"
- 2014 NCSCE SENCER Summer Institute Post Implementation Team Award
- 2014 Two Biological Sciences Department Research Grants (\$19000) – PI and Co-PI
- 2014 Professional Staff Congress CUNY Type C Award (\$3000)
- 2013 Professional Staff Congress CUNY Type B Award (\$6000)
- 2013 Perkins Grant for Improvement of Microbiology Course - \$16254.88
- 2012 Graduate Research Technology Initiative Grant (GRTI) (\$30826), Principal Investigator

Research Publicity

1. Featured on A&M-SA Today <https://news.tamusa.edu/2026/08/NSF-Funded-Summer-Research-Program-Gives-Students-Hands-On-Experience.html>
2. Featured in the Mesquite <https://mesquite-news.com/rise-week-around-the-corner-students-eagerly-wait/>
3. Featured in the Mesquite <https://mesquite-news.com/university-faculty-senate-discusses-strategies-amidst-nsf-funding-uncertainty/>
4. Featured on A&M-SA Today <https://news.tamusa.edu/2025/07/University-Awarded-NSF-Grant-to-Train-Students-in-Ecosystem-Research-at-Espada.html>
5. Featured on the Matters Microbial podcast <https://www.microbe.tv/mm/mm-102/>
6. Quoted in Nature <https://www.nature.com/articles/d41586-024-03009-w>
7. Featured on KSAT <https://www.ksat.com/news/local/2024/07/29/texas-am-university-san-antonios-wastewater-contamination-project-gets-federal-boost/>
8. Featured on San Antonio Report <https://sanantonioreport.org/what-germs-are-in-our-water-this-tamusa-scientist-and-her-students-are-finding-out/>
9. Featured on San Antonio Express <https://www.expressnews.com/news/article/wastewater-covid-bacteria-surveillance-san-antonio-19580144.php>
10. Featured on Wastewater Digest

<https://www.wwdmag.com/wastewater-treatment/press-release/55129342/texas-am-approved-for-1-million-project-to-track-harmful-water-contaminants>

11. Featured on Hoodline

<https://hoodline.com/2024/07/texas-a-m-university-san-antonio-leads-groundbreaking-wastewater-pathogen-detection-initiative/>

12. Quoted on Axios <https://www.axios.com/local/des-moines/2023/07/07/iowa-struggling-emerging-covid-19-variants>

13. Featured on the Science Before The Storm Podcast <https://podcasters.spotify.com/pod/show/science-before-the-storm/episodes/Microbial-Muses-Finding-Inspiration-for-Student-Reading-and-Research-through-Microbiology-e23gbk9/a-a9pe3n9>

14. Featured on MedPage Today <https://www.medpagetoday.com/special-reports/exclusives/100397>

15. Featured on NPR <https://www.npr.org/podcasts/564572329/the-academic-minute>

16. Featured on Inside Higher Ed <https://www.insidehighered.com/audio/2022/06/03/what-municipal-wastewater-can-teach-us-about-covid-19>

17. Academic minute June 3rd, 2022, <https://academicminute.org/2022/05/this-week-on-the-academic-minute-2022-05-30/>

18. Featured in the Irish Examiner <https://www.irishexaminer.com/lifestyle/healthandwellbeing/arid-40843904.html>

19. Featured on the Qiagen Blog on May 5th, 2022, <https://www.qiagen.com/us/knowledge-and-support/knowledge-hub/science-matters/genomics/flushing-out-sars-cov-2-variants-from-wastewater-samples-using-ngs>

20. Featured on the TPRs Petrie Dish April 20th <https://www.tpr.org/podcast/petrie-dish/2022-04-20/wastewater-testing-could-help-control-covids-spread-why-isnt-it-happening-across-america>

21. Featured in the San Antonio Express <https://www.expressnews.com/news/local/article/Sewage-COVID-strains-17007748.php>

22. Featured on BBC World Service radio March 17th, 2022, <https://www.bbc.co.uk/programmes/w3ct1i55>

23. Moving beyond SARS-CoV-2 surveillance: How can next-generation sequencing support wastewater-based epidemiology? Qiagen Webinar Dec 14th, 2021
<https://www.qiagen.com/us/knowledge-and-support/knowledge-hub/events-and-webinars/webinars/moving-beyond-sars-cov-2/>

24. Quoted on ABC News <https://abcnews.go.com/Health/decline-testing-sequencing-hinder-search-future-covid-19/story?id=83727646>

25. Quoted on How Stuff Works <https://science.howstuffworks.com/life/cellular-microscopic/tracking-coronavirus-wastewater.htm>

26. Quoted on Live Science <https://www.livescience.com/author/stephanie-pappas>

27. Quoted in Thrillist <https://www.thrillist.com/news/new-york/nyc-rats-developed-their-own-covid-strain>

28. The project was mentioned on Late Night with Colbert

https://twitter.com/ProfSmyth/status/1490063083401879555?s=20&t=krfpi8tK9AcHb1_mxUwMg

29. Featured in the NY Times <https://www.nytimes.com/2022/02/03/health/coronavirus-wastewater-new-york.html>
30. Featured in the NY Times <https://www.nytimes.com/2022/01/19/health/covid-omicron-wastewater-sewage.html>
31. Written about in Forbes Magazine <https://www.forbes.com/sites/williamhaseltine/2021/09/13/animal-reservoirs-of-covid-19-may-trigger-new-rounds-of-human-disease/?sh=687ee3441776>
32. Featured on SA Smart Chats https://www.youtube.com/watch?v=7c6Kk9_wH94 Jan 26th, 2022
33. Featured on A&M SA Today <https://news.A&M-SA.edu/professors-provide-their-sustainability-insights/> 19th Nov 2021
34. Featured on A&M-SA's Instagram <https://www.instagram.com/p/CVfhQMYFcbF/> Oct 26th, 2021
35. Featured on the Qiagen Blog https://www.qiagen.com/us/knowledge-and-support/knowledge-hub/science-matters/genomics/certainty-at-a-time-of-uncertainty-an-accurate-picture-of-circulating-sars-cov-2-variants?cmpid=CM_GEN_NGSR_InFocusPost-SARSCoV2NGSblog_1221_Harvard&intcmp=atlas261
36. Wastewater project mentioned in <https://www.thecity.nyc/2021/7/29/22600656/covid-mutations-in-new-york-city-sewage-possible-dog-rat> Jul 29th, 2021
37. Featured on This Week in Virology. Recorded March 30th, 2021, on <https://www.microbe.tv/twiv/twiv-737>
38. Quoted on Eating Well magazine on <http://www.eatingwell.com/article/7872064/how-to-plan-a-safer-holiday-cookie-exchange-this-year/>
39. Featured on TNS Blog <https://blogs.newschool.edu/news/2020/11/eugene-lang-faculty-member-davida-smyth-lends-her-expertise-to-the-big-fib/>
40. Featured on the NCSCE website
<https://ncsce.net/ncsce-announced-new-appointments/>
41. Featured on TNS website
<https://blogs.newschool.edu/news/2020/08/davida-smyth-explores-the-connections-between-science-and-society-in-eugene-lang-colleges-interdisciplinary-science-program/>
42. <https://www.westchestergov.com/home/all-press-releases/8571-westchester-partners-with-city-university-of-new-york-for-innovative-covid-19-wastewater-treatment-study>
43. Featured on QCC website
<https://www.qcc.cuny.edu/news/2020/08/Finding-Covid-19.html>
44. Featured on TNS website
<https://www.newschool.edu/new-approaches>
45. Featured on the Eugene Lang Facebook page <https://www.facebook.com/watch/?v=187236315931970>
46. Featured on the TedC Blog
<https://www.tishmancenter.org/blog/connecting-the-dots-12-perspectives-on-coronavirus-lessons-for-climate-change>
47. Interviewed for TNS Free Press on the coronavirus <http://www.newschoolfreepress.com/2020/02/22/over-a-month-into-the-coronavirus-outbreak-the-virus-has-an-official-name-and-has-been-declared-a-global-health-emergency/>

48. Mentioned on the Texas Woman's University website <https://twu.edu/chemistry-biochemistry/department-and-alumni-news/2020-sencer-symposium-recap/>
49. Smyth Lab was featured on TNS Twitter and Instagram
<https://twitter.com/EugeneLang/status/1230926642043871233>
50. Mentioned on the LaGuardia Community College's website <http://ncsce.net/the-center-for-teaching-and-learning-at-laguardia-community-college-holds-professional-development-seminar-sencer-creating-and-integrating-science-literacy-across-the-disciplines/>
51. Oct 23rd, 2020. Disney+ "The Big Fib". Served as the Germ expert. Season 1. Episode 19.
52. 500 Women Scientists-Person Place Thing Series. (n.d.). Retrieved from
<https://personplacething.org/episode-270-davida-smyth/>
53. Quoted by TNS Free Press
<http://www.newschoolfreepress.com/2018/12/12/racquel-samuel-from-first-gen-student-to-first-gen-leader>
54. Spoke about making science labs more sustainable on the TedC blog. Retrieved from
<https://tishmancenter.org/faculty-grant-recipient-davida-smyth-talks-about-making-science-labs-more-sustainable/>
55. /@TheNewSchool. (2018, September 07). Eugene Lang College Faculty: News Highlights - TNS.
<https://medium.com/@TheNewSchool/eugene-lang-college-faculty-news-highlights-f2bffc1ad018>
56. Marketmercy. (n.d.). Mercy Magazine Jan 2018. Retrieved from
<https://www.flipsnack.com/9ACC88A6AED/mercy-magazine-jan-2018-ft3ezaafh.html> (Page 4)
57. Meet Prof. Davida Smyth. (n.d.). Retrieved from
<https://www.facebook.com/MercyAlumni/videos/10155364163861781/>
58. Intrinsic Value Project # 1 by Heather Denyer <https://undergroundzeronyc.org/blog/intrinsic-value-project-1-by-heather-denyer/>
59. CityTech professor leads healthy building research project
<http://www1.cuny.edu/mu/forum/2015/01/08/city-tech-professor-leads-healthy-building-research-project-with-students/>

Invited Research Talks, Webinars, Panels & Oral Presentations (*Upcoming)

- 2026 **Smyth, D.S.** and others. Science in SATX. April 29th. Viva Science SA. UTSA. Panel presenter.
- 2026 **Smyth, D.S.** What bacteria can teach us about the built environment. April 11th. Ohio Branch ASM. Bowling Green University, Ohio. Invited Keynote ASMDL Speaker.
- 2025 **Smyth, D.S.** How wastewater can help us realize a global one-health disease surveillance framework. Cultured Conversations: AK Microbiology Office Hours. Alaska Department of Public Health. Dec 5th. Via Zoom
- 2025 **Smyth, D.S.** How wastewater can help us realize a global one-health disease surveillance framework. ABRCMS. Nov 21st. San Antonio, TX. Invited Expert Talk.
- 2025 **Smyth, D.S.** Doing More with Less. Nov 23rd 2025. ASMCUE. San Antonio, TX. Keynote Address.
- 2025 **Smyth, D.S.** Doing More with Less. Nov 17th 2025. The Norman Willett Memorial Lecture. ASM Pennsylvania Branch. Online.

- 2025 **Smyth, D.S.** Doing More with Less. Oct 31st 2025. ASM Texas Branch. UT Tyler, TX. Keynote Address.
- 2025 **Smyth, D.S.** What bacteria can teach us about the built environment. Oct 10th 2025. ASM Missouri Branch Keynote. St. Charles, MI. Invited Keynote ASMDL Speaker.
- 2025 **Smyth, D.S.** What bacteria can teach us about the built environment. Sept 24th 2025. UTSA. San Antonio, TX. Invited Seminar Speaker.
- 2025 **Smyth, D.S.** Microbiomes for All. August 28th 2025. Science Inspires All. NSTDA, Thailand. Invited Speaker. Via Zoom.
- 2025 **Smyth, D.S.** Water as a Data Source: The role of water sources in surveillance for emerging contaminants of concern. ASM Microbe. June 21st. Los Angeles. Invited speaker
- 2025 **Smyth, D.S.** Advancing Scientific Research & Education to the Microbial Science Community. ASM Microbe. June 20th. Los Angeles. Invited speaker
- 2025 **Smyth, D.S.** Learning Real-World Skills in a Teaching Lab - JMBE Live! ASM Microbe June 20th. Los Angeles. Panel Presentation
- 2025 **Smyth, D.S.** The Core Role of Education in Achieving the Sustainable Development Goals. ASM Microbe June 19th-23rd. Los Angeles. Panel Presentation.
- 2025 **Smyth, D.S.** Doing More with Less. June 16-18th 2025. Open Science in Undergraduate Education. Allen Institute. Keynote Address.
- 2025 **Smyth, D.S.** Sustainability Issues in Physiology Teaching Labs: The Plastics Problem. April 26th. The American Physiology Summit. Baltimore, MD. Invited talk.
- 2025 **Smyth, D.S.** What bacteria can teach us about the built environment. Feb 21st. ASMDL Series. Online.
- 2024 **Smyth, D.S.** One Health Course. Universidad de la República de Uruguay | Udelar · Instituto de Higiene. Facultad de Medicina. November 28th. On Zoom
- 2024 **Smyth, D.S.** What bacteria can teach us about the built environment. Microbes and Social Equity Speaker Series. July 26th. On Zoom.
- 2024 **Smyth, D.S.** What bacteria can tell us about the built environment. Jan 19th. Stonehill College. On Zoom.
- 2024 Conefrey, T. and **Smyth D. S.**, and others. ePortfolios to Promote Equity, Engaged Learning, and Professional Identity Development in STEM. From research to application: ePortfolio practice across the disciplines. Online. June 27th.
- 2024 **Smyth, D.S.** STEM Educators as Civic Educators. Achieving Broader Impacts through Community-Engaged STEM Teaching. Keynote Address. May 21st. Princeton University, New Jersey.
- 2024 **Smyth, D.S.** CUREing your teaching with microbiomes. MOBE Workshop on the Societal and Ethical Implications of Microbiome Engineering in Built Environments. Invited Talk. May 15th. North Carolina State University.
- 2024 **Smyth, D.S.** STEM Educators as Civic Educators. Women Breaking Through Conference. Keynote Address. St. Philip's Community College. Friday April 12th.
- 2024 **Smyth, D.S.** Using Bioinformatics in the Classroom: Research experiences with microbiomes. Brewmor 2024. Online Keynote Address. Feb 9th, 2024.
- 2024 **Smyth, D.S.** and others. SENCERizing Your CUREs and All of Us Research Workbench. 36th Annual California State University (CSU) Biotech Symposium. Santa Clara, CA. Jan 11th. Talk.
- 2024 **Smyth, D.S.** STEM Educators as Civic Educators. SICB 2024, Seattle, Wa. Jan 6, 2023. Talk.
- 2023 **Smyth, D.S.** What bacteria can tell us about the built environment. Nov 27th. Trinity University, San Antonio.
- 2023 **Smyth, D.S.** What bacteria can tell us about the built environment. Sept 21st. Texas A&M University-San Antonio. Inaugural speaker for the College of Arts and Sciences Seminar Series.
- 2023 **Smyth, D.S.** What bacteria can tell us about the built environment. Sept 29th. University of North Texas, Invited Seminar.

- 2023 **Smyth, D.S.** STEM Educators as Civic Educators. Faculty Learning Community of NIST Seminar Series. Jan 27th.
- 2023 **Smyth, D.S.** What bacteria can tell us about the built environment. Aug 25th. **Keynote Address.** [UTEP Biosciences Research Day](#). The University of Texas at El Paso.
- 2023 **Smyth, D.S.** What microbes can tell us about the built environment. Invited seminar at the National Autonomous University of Mexico, Mexico. Via Zoom. 8th of May, 2023.
- 2023 **Smyth, D.S.** Waste not want not. Invited Seminar at Florida International University. 18th of April.
- 2023 van Bemmelen, J., **Smyth, D.S.** and Baaijens, J. AmpliVar: an optimized amplicon sequencing approach to estimating lineage abundances in viral metagenomes. Netherlands Bioinformatics & Systems biology conference 2023
- 2023 **Smyth, D.S.** STEM Educators as Civic Educators. Faculty Learning Community of NIST Seminar Series. Jan 27th.
- 2022 **Smyth, D.S.** How the Built environment can be used to surveil for new and emerging pathogens. Truman State. Dec 2nd. Online Seminar.
- 2022 **Smyth, D.S.** STEM Educators as Civic Educators. National Association of Biology Teachers Professional Development Conference, Indianapolis. Nov 12th. Invited Talk - Award Presentation.
- 2022 **Smyth, D.S.** What bacteria can tell us about the built environment. Texas State University. Nov 4th.
- 2022 **Smyth, D.S.** What microbes can tell us about the built environment. Duke University. Sept 20th. Online.
- 2022 **Smyth, D.S.** In-depth Symposium. AES04. Wastewater-based Epidemiology: SARS-CoV-2 and Other Emerging Pathogens, June 12th, ASM Microbe, Washington DC
- 2022 **Smyth, D.S.** Using wicked problems to CURE your teaching. July 22nd. Microbes and Social Equity Symposium "MSE Education Practices and Curriculum Design"
- 2022 **Smyth, D.S.** and Conefrey, T. Adapting and improving our ePortfolio assignments to promote inclusion, equity, and diversity. July 20-21st. AAEEBL.
- 2022 **Smyth, D.S.** and Goller, C. Microbiomes for All begins with your Budget. July 14th. ASMCUE.
- 2022 **Smyth, D.S.** Diversity, equity, and inclusion. Panel with Jack Simons, June 12th, ASM Microbe, Washington DC
- 2022 **Smyth, D.S.** Summer Tiny Earth Symposium. Invited online talk.
- 2022 **Smyth, D.S.** STEM and Civic Engagement. Beyond Retention Panel. April 1st, Southern Connecticut State University.
- 2022 **Smyth, D.S.** How to CURE your teaching. Invited Online Seminar. Rutgers University. April 12th.
- 2022 **Smyth, D.S.** Waste not want not. March 25th. Texas Branch Meeting of ASM. Online talk.
- 2022 **Smyth, D.S.** Waste not want not. Feb 18th. Texas Woman's University. In-person seminar.
- 2022 **Smyth, D.S.** Waste not want not. SENCER Center of Innovation MidAtlantic. Spring Regional Symposium. Jan 15th. Plenary.
- 2022 **Smyth, D.S.** and Conefrey, T. Educating for Democracy in Undergraduate STEM Programs. Roundtable. AACU Annual Meeting. Washington DC. Jan 19-Jan 22nd.
- 2021 **Smyth, D.S.** Moving beyond SARS-CoV-2 surveillance: How can next-generation sequencing support wastewater-based epidemiology? Webinar for Qiagen, Dec 14th
https://www.qiagen.com/us/knowledge-and-support/knowledge-hub/events-and-webinars/webinars/moving-beyond-sars-cov-2?cmpid=CM_GEN_NGSR_InFocusPost-SARSCoV2NGSblog_1221_Harvard&intcmp=atlas261

- 2021 **Smyth, D.S.** and Muth, T. Science for All: One Microbiome at a Time. NABT. Nov 12th. Atlanta, GA.
- 2021 **Smyth, D.S.** Moving beyond surveillance. How can Next Generation Sequencing support wastewater-based epidemiology? Online talk. November 5th. Texas Branch Meeting of ASM.
- 2021 **Smyth, D.S.** To target or not to target when sequencing SARS-CoV-2. Wastewater Surveillance NSF RCN Fall Meeting. Nov 3rd.
- 2021 **Smyth, D.S.** What bacteria can tell us about the built environment? Oct 29th. Invited seminar. The University of Texas at El Paso.
- 2021 **Smyth, D.S.,** and others. Tiny Earth Partner Instructors Workshop Community Outreach. Oct 1st. Panel. Online
- 2021 **Smyth, D.S.** Tracking SARS-CoV-2 in NYC wastewater: A tail. Oct 28th. Guest lecture at TNS for the Rats: The Poetics and Politics of interspecies migration course.
- 2021 **Smyth, D.S.** What bacteria can tell us about the built environment? Oct 15th. Invited seminar for the Water Resources Science & Technology Program. Texas A&M University at San Antonio.
- 2021 **Smyth, D.S.,** Trujillo, M., Dennehy, J.D., and Chauvin, F. Environmental Protection & Disease Surveillance -The Emerging Field of Wastewater. NSF-ATE Panel.
- 2021 **Smyth, D.S.** What bacteria can tell us about the built environment? Sept 10th. Invited seminar. UTSA.
- 2021 **Smyth, D.S.** and Seiser, R. Online Vaccination Science Resources for COVID-19 Education. ASMCUE. Online. June 29-July 1st.
- 2021 **Smyth, D.S.** and Muth, T. Microbiomes for All! Zooming in on data analysis during the COVID-19 pandemic. ASMCUE. Online. June 29-July 1st.
- 2021 **Smyth, D.S.** and Reilly, E. Science Education as Civic Education: The Future of STEM Learning. June 11th. ASCN Transforming Institutions Conference.
- 2021 **Smyth, D.S.** Delirium and Discovery: Separating the Science Facts from Science Fiction. Feb 11th. Environmental Humanities Lecture course. Guest Lecture.
- 2021 **Smyth, D.S.** and Reilly, E. Science Educators as Civic Educators. SENCER SCI-MidAtlantic Meeting. Jan 16th. Online.
- 2020 **Smyth, D.S.** Finding Money for your CURE. Emory University Online. Oct 27th.
- 2020 **Smyth, D.S.** SENCERizing your CUREs. BIOME. Sept 14th.
- 2020 **Smyth, D.S.** Elevating your teaching when going online. July 20th. Invited Panel at Oberlin
- 2020 **Smyth, D.S.** Problem-driven research experiences with microbiomes. High-throughput Discovery Science & Inquiry-Based Case Studies for Today's Students. Invited Talk Online. June 2nd.
- 2020 Muth, T. and **Smyth, D.S.** Microbiomes for All: Resources, strategies, and community support for the incorporation of large microbiome data sets into course-based undergraduate research projects. 2020 BIOME Meeting. Talk. (Meeting moved online due to COVID)
- 2020 **Smyth, D.S.** and Pelzel, H. SENCERizing your Microbiology Course. ASMCUE. Bellevue, WA. July 9-12th. Session. (Meeting online due to COVID)
- 2020 **Smyth, D.S and others.** BioBus Town Hall – COVID-19 and the Immune System. May 7th. Zoom Panel
- 2020 **Smyth, D.S., and others.** BioBus Town Hall – How do we get sick? April 23rd. Zoom Panel
- 2020 **Smyth, D.S.** The sustainability challenges facing research and teaching laboratories when going green. Feb 23rd. Waste and Justice University Lecture course. Guest Lecture.

- 2020 **Smyth, D.S.** Delirium and Discovery: Separating the Science Facts from Science Fiction. Feb 11th. Environmental Humanities Lecture course. Guest Lecture.
- 2020 **Smyth, D.S.** The sustainability challenges facing research and teaching laboratories when going green. SENCER Center of Innovation Southwest. Spring Regional Symposium. Jan 31st. Invited Talk.
- 2019 **Smyth, D.S.** What bacteria can tell us about the built environment? Nov 21st. Invited seminar. York College.
- 2019 **Smyth, D.S.** Using the SENCER approach in biology classes. Oct 18th. Invited talk at LaGuardia Community College.
- 2019 **Smyth, D.S.** What bacteria can tell us about the built environment? Sept 4th. Invited seminar. Queens College.
- 2019 **Smyth, D.S.** Colleges as Ecosystems. SENCER Summer Institute. Aug 1st to 4th. Case Western University, Cleveland, OH. Oral Presentation.
- 2019 **Smyth, D.S.** Study Design and Protection of Human Subjects in Research. Guest Lecture for Clinical Laboratory Sciences Program at Mercy College, June 5th.
- 2019 **Smyth, D.S.** Learning from Bacteria: Survivors in every environment. Keynote address at the MAPS symposium. Stuyvesant High School. New York. May.
- 2019 **Smyth, D.S.** Superbugs Survival in the Built Environment. Feb 11th. Biodesign Seminar Series. TNS. NY. Invited Talk.
- 2019 **Smyth, D.S.** Sustainable Science: When pathogens enter the lab. Feb 11th. Waste and Justice University Lecture course. Guest Lecture
- 2019 Sara Danzi-Engoron, Maria Entezari, Kathleen Landy, and **Davida Smyth**. Pedagogy and Classroom Engagement Panel. January 23rd. 5th Annual Faculty Development Retreat. Queensborough Community College. Panel.
- 2018 **Smyth, D.S.** What makes Superbugs super and how can we resist them? Biomedical Informatics Colloquium. December 5th. NCityTech, Brooklyn, NY. Invited Talk
- 2018 **Smyth, D.S.** What makes Superbugs super, and how can we resist them? Science Fiction and Speculative Futures Class. November 19th. The University of Arizona, AZ. Via ZOOM. Guest lecture.
- 2018 Yust, A. and **Smyth, D.** Simulating Antibiotic Resistance in the Computer and Biology Labs: Ideas for Undergraduate Projects. The International Symposium on Biomathematics and Ecology Education and Research. Arizona State University, Tempe, USA. Oral Presentation by Anne Yust.
- 2018 Gardner, J., **Smyth, D.S.**, Bautista, R., Corr, J. and Godelnik, R. 1.5C for Victory Let's get this %#\$ done! Panel. Dec 3rd. Parsons School of Design, New York. Panel.
- 2018 Sieg, D. & **Smyth, D.S.** Course-based Authentic Research Experiences and Opportunities. SENCER Summer Institute. Aug 2nd to 5th. Santa Clara University, Santa Clara, CA. Oral Presentation.
- 2018 **Smyth, D.S.** Scaffolding PBL and CUREs Across the Curriculum. SENCER Summer Institute. Aug 2nd to 5th. Santa Clara University, Santa Clara, CA. Oral Presentation
- 2018 **Smyth, D.S.** Improving Civic and Scientific Literacy through Scaffolded Thematic Classroom Research Experiences. PKAL Massachusetts Regional Summer Meeting. June 15th. Salem State University. Salem, MA. Oral Presentation

- 2018 **Smyth, D.S.**, Powers, K., Colby, K., Knopp-Kelly, M. Improving civic and scientific literacy among minority students with collaborative experiences. SABER National Meeting. July 27-29th. University of Minnesota, MN. Oral Presentation
- 2018 **Smyth, D.S.** Resisting superbugs in the built environment. TNS. Jan 29th. Invited Talk.
- 2018 **Smyth, D.S.** Teaching and Pedagogical Research. Queensborough Faculty Retreat. Jan 25th Panel.
- 2017 Ellison, I., & **Smyth, D.S.** How the Toilet Changed the World. Panel for World Toilet Day. November 17th. Mercy College, Dobbs Ferry, NY. Panel
- 2017 Ellison, I., & **Smyth, D.S.** How the Toilet Changed the World. Panel for World Toilet Day. November 17th. Mercy College, Dobbs Ferry, NY. Panel
- 2017 **Smyth, D.S.** Tackling antibiotic-resistant bacteria in our changing urban environment. Environmental Health and Health of the Environment Conference. Nov 18th. St Francis College, Brooklyn, NY. **Keynote address.**
- 2017 **Smyth, D.S.** and Hlawaty, H. Hustle and Flow: Keeping the Curriculum Sound with a Transient Teaching Corps. SENCER SCI-MidAtlantic Meeting. Sept 26th. Molloy College, Long Island, NY. Oral Presentation
- 2017 Seto, J., and **Smyth, D.** Using next-generation sequencing technology to elucidate the microorganism diversity in different water sites in Brooklyn. The American Society for Microbiology Annual Meeting. New Orleans, La. Oral Presentation.
- 2017 **Smyth, D.S.** Leveraging Civic Engagement in Upper-Level Courses: Introducing the "Microbiology of Urban Spaces". Rider University Faculty Seminar Day. Invited Talk
- 2017 **Smyth, D.S.** Leveraging Civic Engagement in Upper-Level Courses: Introducing the "Microbiology of Urban Spaces". SENCER Summer Institute. Aug 3rd to 6th. Stony Brook University, Long Island, NY. Oral Presentation
- 2017 **Smyth, D.S.** Leveraging Civic Engagement in Upper-Level Courses: Introducing the "Microbiology of Urban Spaces". MACUB. Oral Presentation.
- 2017 **Smyth, D.** Soil, and water in NYC. Queensborough College. March 29th. Panel.
- 2016 Ellison, I., & **Smyth, D.S.** How the Toilet Changed the World. World Toilet Day. November 18th, 2016. Mercy College, Dobbs Ferry, NY. Panel
- 2016 Ellison, I., & **Smyth, D.S.** Summer of Zika. Social & Public Health Impact of the Zika Epidemic. April 6th. Mercy College, Dobbs Ferry, NY. Oral presentation.
- 2016 **Smyth, D.S.** The Latest News on MRSA. April 19th From Ebola to Zika: Present and Emerging Infectious Diseases. A conference at Columbia University sponsored by the University Seminars, Population Biology #521. Invited Talk.
- 2016 **Smyth, D.S.** Microbiology of the built environment: The changing microbiome or "staphome" of New York City College Campuses. February 22nd. PACE University, New York, NY. Invited Talk
- 2015 Seto, J., and **Smyth D.S.** Using Technology both inside and outside the Classroom: How RNAseq, Metagenomics and Bioinformatics can be combined as Both Teaching and Research Tools with Undergraduate Students. Oral Presentation. The 48th Annual Conference of the Metropolitan Association of College and University Biologists. Nov 7th. Montclair State University, NJ.
- 2015 Culhane, T.H., Ellison, I., and **Smyth, D.S.** Gender, Water and Sanitation: Interlinkages in Sustainable Development. November 3rd. Mercy College, Dobbs Ferry, NY. Panel.

- 2015 Culhane, T.H., Ellison, I., and **Smyth, D.S.** How the Toilet Changed the World. World Toilet Day. Nov 17th. 2015. Mercy College, Dobbs Ferry, NY. Oral Presentation.
- 2015 **Smyth, D.S.**, and But, J. When There is No College Reading. SENCER Regional Conference. Oct 16th, 2015. NCityTech, Brooklyn, NY. Oral Presentation.
- 2015 **Smyth, D.S.** The READ initiative. CUNY Assessment Seminar, John Jay, CUNY, March. Oral Presentation.
- 2014 **Smyth, D.S.** "The adaptability of the Staphylococci". Queens College Seminar Series. Invited Talk
- 2014 **Smyth, D.S.** The intrinsic value of art and science. Panel presentation as part of the Underground Zero Project, July, NYC.
- 2014 **Smyth, D.S.** Lessons learned from bacterial networks. How to land and keep that academic job. New York Medical College. June. NYMCPA Seminar Series. Invited Talk
- 2014 But, J., **Smyth, D.S.** and LaBoy, H. Reading Effectively Across the Disciplines. The International Journal of Arts and Sciences conference. Harvard Medical School – Panel Presentation
- 2013 **Smyth, D.S.** "Using Staphylococcus aureus as a Model Organism for Studying Bacterial Adaptation and Evolution". Brooklyn College Seminar 2013 Series. Invited Talk
- 2012 **Smyth DS**, Wible M, Mendes RE, Labella A, Kafer JM, Torres VJ, Novick RP, and Shopsin B. *agr* function and mortality in nosocomial pneumonia due to methicillin-resistant *Staphylococcus aureus*. In Proceedings of the 52nd ICAAC in San Francisco, Sept 9-12. Oral presentation by B Shopsin.
- 2008 **Smyth, D. S.**, J. H. Song, M. C. Enright, H. de Lencastre, and D. A. Robinson. Global phylogeny of the ST239–MRSA–III clone. In: Proceeding of the 13th International Symposium on Staphylococci and Staphylococcal Infections, Cairns, Australia – Oral presentation by DA Robinson
- 2004 **Smyth, D.S.**, Collery, M. and Smyth, C.J. Finger lickin' good? – Genotypes of Staphylococcus aureus associated with broiler chickens. In Food Pathogen Epidemiology: Microbes, Maladies and Methods, Maunsell, B., Sheridan J., and Bolton, D.J. (eds.), European Union Risk Analysis Information Network (EU-RAIN) International Conference, Padua, Italy, December, 148, (Abstract P6) – Talk by C.J. Smyth
- 2004 **Smyth, D. S.**, E. J. Feil, W. J. Meaney, P. J. Hartigan, J. R. Fitzgerald, D. A. Robinson, C. J. Smyth, and M. C. Enright. *Staphylococcus aureus* isolated from cows, goats, sheep, rabbits, and chickens: Genotypic variation as revealed using molecular typing techniques. In: Proceeding of the 5th World Congress Foodborne Infections and Intoxications, Berlin, Germany 6th to 12th June – Oral Presentation
- 2003 **Smyth, D. S.**, P. J. Hartigan, W. J. Meaney and C. J. Smyth. Application of multiplex PCR to determine the frequencies of classical and novel Staphylococcal enterotoxins in strains associated with mastitis. Proceedings of the 57th Conference of the Association of Veterinary Teachers and Research Workers, Scarborough, England, April, Research in Veterinary Science, 74, Suppl. A, 8 (Abstract)– Talk
- 2003 **Smyth, D. S.**, P. J. Hartigan, W. J. Meaney and C. J. Smyth. Application of multiplex PCR to detect novel enterotoxin genes in strains of *Staphylococcus aureus* from goats, sheep, pigs, and rabbits. In: Proceedings of the 1st FEMS Congress of European Microbiologists, Slovenia, June 29th to July 3rd, 2003, 35 (Abstract A3–5) – Oral presentation

Poster Presentations

- 2023 **Smyth, D.S.**, Mendez, M., Mendoza, I., Howell, N., and Butler, E. Establishing the Texas Researchers Water Sci. Consortium (TRWSC). ASM Microbe June 15-19, Houston, Texas.

- 2021 **Smyth, D.S.**, Trujillo, M., Cheung, K, Gao, A., Hoxie, I., Kannoly, S., Kubota, N., Markman, M., Myat San, K., Sompanya, G*. and Dennehy, JJ. Detection of Mutations Associated with Variants of Concern Via High Throughput Sequencing of SARS-CoV-2 Isolated from NYC Wastewater. World Microbe Forum. June 20-24. Online
- 2021 Muth, T., **Smyth, D.S.**, Sompanya, G. and Caplan, A. Undergraduate Microbiome Research – Zooming in During the COVID-19 Pandemic. World Microbe Forum. June 20-24. Online
- 2021 Spagnolo, F., Skanata, A., **Smyth, D.S.** and Dennehy, J. Dose, Distance, and Dilution in Airborne Viral Transmission. World Microbe Forum. June 20-24. Online
- 2020 **Smyth, D.S.** SENCERizing your CURE. 2020 BIOME Meeting. (Meeting online due to COVID)
- 2020 **Smyth, D.S.**, and Conefrey, T. ePortfolios for civic scientific literacy. The American Society for Microbiology Annual Meeting. June 18-22nd Chicago, IL. (Meeting Canceled due to COVID)
- 2019 **Smyth, D.S.** Colleges as ecosystems: Lessons learned from microbial networks. Undergraduate Education in Biology Gordon Research Conference. Bates College, Lewiston, ME. June 23-28, 2019.
- 2019 Nguyen, A.V., Li, G., Mata, D., Bermudes, O., Fernandez, M., Pubhill, K., Santana, J., Kim, W., Chimbay, E., Eralte, J., **Smyth, D.**, Orlofsky, A., and Khan, M. Using Isothermal Loop Amplification (LAMP) as a Tool to Involve Undergraduates in High-Impact Educational Practice. Undergraduate Education in Biology Gordon Research Conference. Bates College, Lewiston, ME. June 23-28, 2019.
- 2019 Nguyen, A.V., Li, G., Mata, D., Bermudes, O., Fernandez, M., Pubhill, K., Santana, J., Kim, W., Chimbay, E., Eralte, J., **Smyth, D.**, Orlofsky, A., and Khan, M. Using Isothermal Loop Amplification (LAMP) as a Tool to Involve Undergraduates in High-Impact Educational Practice. April 5th. STEM, Humanities and Social Justice, SENCER Regional Meeting. TNS, NY.
- 2018 Narayanan, M., Sabatini, J., Surendran, G., Devanas, M., and **Smyth, D.S.** A Project-Based Learning (PBL) Approach For Engaging Students in Undergraduate Chemistry Courses. SENCER Summer Institute. Aug 2nd to 5th. Santa Clara University, Santa Clara, CA.
- 2018 **Smyth, D.S.** Improving Civic and Scientific Literacy through Scaffolded Thematic Classroom Research Experiences. 8th Annual Meeting of the Society for the Advancement of Biology Education Research. July 26-28th. University of Minnesota, Twin Cities, MN.
- 2018 **Smyth, D.S.** Improving Civic and Scientific Literacy through Scaffolded Thematic Classroom Research Experiences. Wicked Problems: Investigating real-world problems in the biology classroom. June 18-23rd Harvey Mudd. Claremont, CA.
- 2017 Seto, J., and **Smyth, D.** Using next-generation sequencing technology to elucidate the microorganism diversity in different water sites in Brooklyn. The American Society for Microbiology Annual Meeting. New Orleans, LA.
- 2017 Narayanan, M., Sabatini, J., Surendran, G., Devanas, M., and **Smyth, D.S.** A course-based undergraduate research experience (CURE) in General Chemistry I. SENCER SCI-MidAtlantic Meeting. Sept 26th. Molloy College, Long Island, NY.
- 2017 **Smyth, D.S.** Improving Civic and Scientific Literacy through Scaffolded Thematic Classroom Research Experiences. Gordon Undergraduate Biology Education Research Conference, July 9th to 14th 2017. Stonehill College, Easton, MA.

- 2017 **Smyth, D.S.** Improving Civic and Scientific Literacy through Scaffolded Thematic Classroom Research Experiences. The American Society for Microbiology Annual Meeting. New Orleans, La.
- 2016 **Smyth, D.S.** Improving Civic and Scientific Literacy through Scaffolded Thematic Classroom Research Experiences. Poster Presentation. SENCER Summer Institute. July 28th to Aug 1st, 2016. Roosevelt University, Chicago, IL.
- 2015 **D. S. Smyth**, M. Lam, W.P.K. Tsang, and Fabiola Fontaine. Microbiology of the Built Environment: The changing microbiome of CityTech. Gordon Research Conference. South Hadley, MA. July 12-17, 2015. Poster Presentation
- 2015 **D. S. Smyth**, M. Lam, W.P.K. Tsang, and Fabiola Fontaine. Microbiology of the Built Environment: The changing microbiome of CityTech. Microbes in the city: Mapping the urban genome. New York Academy of Science, NYC. June 19th.
- 2015 Matthews, A., Bilello, Maria-Elena, **Smyth, D** and But, J. Back to Basics: Improving Reading in Dental Hygiene Courses. CDHA National Conference. Oct 29-31. Victoria, British Columbia.
- 2014 **Smyth, D. S.** The role of mobile DNA in *Staphylococcus aureus* adaptation. 10th Annual Faculty Recognition Day. CityTech.
- 2014 **Smyth, D. S.** Reading Effectively Across the Disciplines – Focus on Biology. The Teaching Professor Conference
- 2012 Rakov, A. V., LeRoy, C. E., **Smyth, D. S.**, Luo, X., Ubukata, K., Dagan, R., Rudolph, K., Robinson, D. A. TN6078: A novel mobile genetic element discovered in pneumococcal outbreak strains has geography-specific invasive disease associations. In: Proceedings of the 8th International Symposium on Pneumococci and Pneumococcal Infections, Brazil.
- 2004 **Smyth, D.**, Feil, E.J., Meaney, W.J., Hartigan, P.J., Fitzgerald, J.R., Robinson, D.A., Smyth, C.J. and Enright, M.C. (2004). Clonal relationships of animal-associated *Staphylococcus aureus* revealed by molecular typing methods, Abstracts of the 104th General Meeting of the American Society for Microbiology, New Orleans, U.S.A., May 2004, 164 (Abstract C-227).
- 2004 **Smyth, D.**, Kennedy, J., Twohig, J, Bolton, D.J. and Smyth, C.J. (2004). *Staphylococcus aureus* isolates from Irish domestic fridges possess novel superantigen genes and are clonal in nature, Proceedings of Society for Applied Microbiology Summer Conference “Dairy and Food Microbiology: Challenges and Opportunities”, Cork, Ireland, July 2004, 35 (Abstract P33).
- 2004 **Smyth, D.**, Feil, E.J., Meaney, W.J., Hartigan, P.J., Fitzgerald, J.R., Robinson, D.A., Smyth, C.J. and Enright, M.C. (2004). Genotypic variation of animal-associated *Staphylococcus aureus* as determined using molecular typing techniques, Proceedings of the Society for General Microbiology Irish Branch Meeting “An Update on Bacterial Pathogenicity”, Galway, Ireland, April 2004, Abstract P83.
- 2002 **Smyth, D. S.**, P. J. Hartigan, W. J. Meaney and C. J. Smyth. Novel and putative exotoxin genes in strains of *Staphylococcus aureus* from bovine mastitis. In: Proceedings of the 32nd Annual Food Science and Technology Research Conference, UCC, Cork, Ireland, September.
- 2002 **Smyth, D.**, Hartigan, P.J., Meaney, W.J. and Smyth, C.J. Frequencies of novel and putative exotoxin genes in strains of *Staphylococcus aureus* from bovine mastitis, Proceedings of the 151st Ordinary Meeting of the Society for General Microbiology, Loughborough, England, September, 44 (Abstract MI 05).

- 2002 **Smyth, D. S.**, P. J. Hartigan, W. J. Meaney and C. J. Smyth. Frequencies of novel and putative exotoxin genes in strains of *Staphylococcus aureus*. In: Proceedings of the 10th International Symposium on Staphylococci and Staphylococcal Infections, Tsukuba, Japan, (Abstract ISSI-259-Abstract-01).

Student and Postdoc Mentoring

Research Posters & Oral Presentations by #Highschool, *Undergraduate @Graduate Student Mentees

- 2026 Eddy, U[@], Guerra, D., and Smyth, D.S. Not A Wild Goose Chase - Effect of Western Cattle Egrets in San Antonio. 62nd Annual Meeting of the Texas Chapter of the Wildlife Society, Feb 18-20. Moody Gardens Hotel and Convention Center in Galveston, Texas. Poster.
- 2026 Guerra, D., Eddy, U.[@], Plappert, J., Smyth, D., Green, C.. A Wild Egret Chase: Disentangling the Impacts of Vegetation Communities on Urban Rookery Presence and Effects of Rookeries on Vegetation Communities. 62nd Annual Meeting of the Texas Chapter of the Wildlife Society, Feb 18-20. Moody Gardens Hotel and Convention Center in Galveston, Texas.
- 2026 Plappert, J., Guerra, D., Eddy, U.[@], Smyth, D., Green, C. Rookery of Dreams: Consensus Building and Stakeholder Engagement in Pursuit of Sustainable Solutions to Human-egret Conflict. 62nd Annual Meeting of the Texas Chapter of the Wildlife Society, Feb 18-20. Moody Gardens Hotel and Convention Center in Galveston, Texas.
- 2025 Acosta, L.* , Sanchez, PI*, and Smyth, D.S. Tiny Earth. ASM Texas Branch March 2025, Mount Lebanon Camps, Texas.
- 2025 Esp, L.* and Smyth D.S. Studying the indoor transmission of *S. aureus*. A&M-SA Student Research Symposium. April 2025, Texas A&M University, San Antonio. Poster presentation.
- 2025 Garcia, R[@]. and Smyth, D.S. Impacts of land development on chemical and physical properties and its effect on microbial diversity. ASM Texas Branch, Nov 1, University of Texas at Tyler, Tyler. Poster presentation.
- 2024 Garcia, R[@]. and Smyth, D.S. Impacts of land development on chemical and physical properties and its effect on microbial diversity. SICB 2024. Jan 2-6. Seattle Convention Center, Seattle, WA. Talk.
- 2024 Guillen D[@]., Garcia, R[@] and Smyth, D.S.. Impact of land development on soil microdiversity. SICB 2024. Jan 2-6. Seattle Convention Center, Seattle, WA. Oral presentation.
- 2024 Reyes, C*., Meche, B[@]., Esp, L.* and Smyth, D.S. Protocol development for identification of *Staphylococcus aureus* from wastewater. ASM Texas Branch Nov 8, University of Texas Medical Branch, Galveston, Texas. Oral presentation.
- 2024 Garcia, R[@]. and Smyth, D.S. Impacts of land development on chemical and physical properties and its effect on microbial diversity. ASM Texas Branch Nov 8, University of Texas Medical Branch, Galveston, Texas. Oral presentation.
- 2024 Esp, L.* , Rath, J*., Davidson, S*., Stacy, L[@], Smyth D.S. Studying the indoor transmission of *S. aureus*. 2024 S-STEM Scholars & PI Meeting. November 6-10. Chicago, IL. Poster.
- 2024 Esp, L.* , Rath, J*., Davidson, S*., Stacy, L[@], Smyth D.S. Studying the indoor transmission of *S. aureus*. A&M-SA Student Research Symposium. April 19th, Texas A&M University, San Antonio. Oral presentation.

- 2024 Stacy, L.[@], Smyth, D.S., Teufel, A. Agent-Based Modeling to Assess Optimal Conditions for Reducing Pathogenic Air Transmission. A&M-SA Student Research Symposium. April 19th, Texas A&M University, San Antonio. Oral presentation.
- 2024 Guillen D.[@], and Smyth, D.S.. Impact of land development on soil microdiversity. A&M-SA Student Research Symposium. April 19th, Texas A&M University, San Antonio. Oral presentation.
- 2024 Guillen D.[@], Garcia, R.[@] and Smyth, D.S.. Impact of land development on soil microdiversity. ASM Texas Branch March 22, Mt. Lebanon Campus, Texas. Oral presentation.
- 2024 Garcia, R.[@]. and Smyth, D.S. Impacts of land development on chemical and physical properties and its effect on microbial diversity. ASM Texas Branch March 22, Mt. Lebanon Campus, Texas. Poster presentation.
- 2024 Reyes, C.*., Meche, B.[@]., Esp, L.* and Smyth, D.S. Protocol development for identification of *Staphylococcus aureus* from wastewater. ASM Texas Branch March 22, Mt. Lebanon Campus, Texas. Poster presentation.
- 2024 McGehee, R*., Smyth, D.S., and Mares, C. An invertebrate model using *Galleria mellonella* to study the innate immune response to *Staphylococcus haemolyticus*. ASM Texas Branch March 22, Mt. Lebanon Campus, Texas. Poster presentation.
- 2023 Davidson, S*., Stacy, L.[@], Smyth D.S. Use of *S. aureus* to Study Airflow and Filtration in Collegiate Environment. ASM Microbe June 15-19, Houston, Texas. Poster presentation
- 2023 Stacy, L.[@], Smyth, D.S., Teufel, A. Agent-Based Modeling to Assess Optimal Conditions for Reducing Pathogenic Air Transmission. ASM Microbe June 15-19, Houston, Texas. Oral presentation
- 2023 Rodriguez, G.[@]., Smyth, D.S. Developing a Faster, Less Expensive, More Accessible, Microbial Detection Method for Wastewater Surveillance. ASM Microbe June 15-19, Houston, Texas. Poster presentation
- 2023 McGehee, R*., Smyth, D.S., and Mares, C. An invertebrate model using *Galleria mellonella* to study the innate immune response to *Staphylococcus haemolyticus*. ASM Microbe June 15-19, Houston, Texas. Poster presentation.
- 2023 Robles, A.[@]., Smyth, D.S. Microbial Source Tracking of *Escherichia coli* in Ambient Waters Through Next Generation Sequencing with Utilization of the β -Glucuronidase Gene and Propidium Monoazide Treatment. ASM Microbe June 15-19, Houston, Texas. Poster presentation.
- 2023 McGehee, R*., Smyth, D.S., and Mares, C. An invertebrate model using *Galleria mellonella* to study the innate immune response to *Staphylococcus haemolyticus*. The American Society for Microbiology, Texas Branch Meeting, Abilene, TX, March 25th, 2023
- 2023 Stacy, L.[@], Smyth, D.S, and Teufel, A. Agent-Based Modeling to Establish a Protocol for Sampling DNA from the Air. The American Society for Microbiology, Texas Branch Meeting, Abilene, TX, March 25th, 2023
- 2023 Maldonado, C.*, Cisneros, J.*, Walik, M.*, Castro, J*., Guerra, D.*, Abongwa, P. and Smyth, D.S. Biological and Chemical Impacts of Residential Development on the Soil Microbiome. The American Society for Microbiology, Texas Branch Meeting, Abilene, TX, March 25th, 2023
- 2023 Davidson, S*., Kasriel, G.*., Stacy, L.[@]., and Smyth, D.S. Use of *Staphylococcus aureus* to study indoor air transmission of microbes. The American Society for Microbiology, Texas Branch Meeting, Abilene, TX, March 25th, 2023

- 2023 Maldonado, C.* , Cisneros, J.* , Walik, M.* , Castro, J*., Abongwa, P. and Smyth, D.S. Biological and Chemical Impacts of Residential Development on the Soil Microbiome. 18th Annual TAMUS Pathways Symposium, Galveston, TX, March 2-3th, 2023
- 2023 Davidson, S*., Kasriel, G.* , Stacy, L@., and Smyth, D.S. *Use of Staphylococcus aureus* to study airflow and filtration in a collegiate environment. 18th Annual TAMUS Pathways Symposium, Galveston, TX, March 2-3th, 2023
- 2023 Rodriguez, G@., Smyth, D.S. Developing a Faster, Less Expensive, More Accessible Microbial Detection Method for Wastewater Surveillance. 18th Annual TAMUS Pathways Symposium, Galveston, TX, March 2-3th, 2023
- 2023 McGehee, R*., Smyth, D.S., and Mares, C. An invertebrate model using *Galleria mellonella* to study the innate immune response to *Staphylococcus hemolyticus*. 18th Annual TAMUS Pathways Symposium, Galveston, TX, March 2-3th, 2023
- 2023 Robles, A@., Smyth, D.S. Microbial Source Tracking of *Escherichia coli* in Ambient Waters Through Next Generation Sequencing with Utilization of the β -Glucuronidase Gene and Propidium Monoazide Treatment. 18th Annual TAMUS Pathways Symposium, Galveston, TX, March 2-3th, 2023
- 2023 Stacy, L. @, Smyth, D.S. and Teufel, A. Agent-Based Modeling to Establish a Protocol for Sampling DNA from the Air. SICB 2022, Austin, TX Jan 6, 2023. Poster
- 2022 Stacy, L. @, Smyth, D.S., and Teufel, A. Agent-Based Modeling to Establish a Protocol for Sampling DNA from the Air. The American Society for Microbiology, Texas Branch Meeting, November 11th, 2022
- 2022 McGehee, R*., Smyth, D.S., and Mares, C. Establishing an invertebrate infection model for *Staphylococcus hemolyticus*. The American Society for Microbiology, Texas Branch Meeting, November 11th, 2022
- 2022 Maldonado, C.* , Cisneros, J.* , Walik, M.* and Smyth, D.S. Characterization of antimicrobial production and microbial diversity in the soils of San Antonio. The American Society for Microbiology, Texas Branch Meeting, November 11th, 2022
- 2022 Rodriguez, G@ and Smyth, D.S. Developing a Faster, Inexpensive, Accessible, Microbial Detection Method for Wastewater Surveillance. The American Society for Microbiology, Texas Branch Meeting, November 11th, 2022
- 2020 Thomason, W.* , Higa, L.* and Smyth, D. S. Effects of Extreme Weather Patterns on the Soil Microbiome of New York City. June 18-22nd. The American Society for Microbiology Annual Meeting. Chicago, IL. (Meeting online due to COVID - Poster)
- 2020 Metz, M.* , and Smyth, D.S. Peeling Back the Layers: The Hidden Hazards of the Walls Around Us. June 18-22nd. The American Society for Microbiology Annual Meeting. Chicago, IL. (Meeting online due to COVID - Poster)
- 2019 Thomason, W.* , Higa, L.* and Smyth, D. S. Effects of Extreme Weather Patterns on the Soil Microbiome of New York City. The Annual Biomedical Research Conference for Minority Students. November 13th to 16th Anaheim, CA.
- 2019 Hughes, L.* , and Smyth, D.S. Accessing Bioluminescence: Exploring Sustainable Environments for Bioluminescent Microorganisms, and the Possibility of Using Bioluminescence for Disaster Relief. The

- 52nd Annual Conference of the Metropolitan Association of College and University Biologists. October 26th. Monmouth University, NJ. Poster
- 2019 Thomason, W. *, and Smyth, D.S. Effects of Extreme Weather Patterns on the Soil Microbiome of New York City. The 52nd Annual Conference of the Metropolitan Association of College and University Biologists. October 26th. Monmouth University, NJ. Poster
- 2019 Chen, S. *, Misquitta, K. #, and Smyth, D.S. Sequencing the Smoke: The Unseen Microbial Hazards of Vaping. The 52nd Annual Conference of the Metropolitan Association of College and University Biologists. October 26th. Monmouth University, NJ. Poster
- 2019 Metz, M. *, and Smyth, D.S. Peeling Back the Layers: The Hidden Hazards of the Walls Around Us. The 52nd Annual Conference of the Metropolitan Association of College and University Biologists. October 26th. Monmouth University, NJ. Poster
- 2019 Misquitta, K. #, Chen, R. #, Pagan, M. #, and Smyth, D.S. Sequencing the Smoke: The Unseen Microbial Hazards of Vaping. Annual Symposium of the Urban Barcode Research Program. New York Academy of Medicine. May 30th. Poster.
- 2019 Banks, M. @, Chamany, K., and Smyth, D.S. Going Green in the Lab: Extent of Green Practices in Academic Labs. July 4-6. Naturally Artificial Intelligences, the 4th Open Fields Conference, the RIXC Art Science Festival. The Latvian National Museum of Art, Riga, Latvia. Poster
- 2019 Vegas, N. *, and Smyth, D.S. Do antimicrobial paints do what they say on the tin? June 20-24th. The American Society for Microbiology Annual Meeting. San Francisco, CA. Rapid Fire Talk
- 2019 Eralte, J. *, Vegas, N. *, Brown, A. *, Tumidajski, N. *, Metz, M. * and Smyth, D.S. They're Dry But Are They Clean? Isolating Resistant Staphylococcus from Hand Dryers In An Urban College. June 20-24. The American Society for Microbiology Annual Meeting. San Francisco, CA. Poster
- 2019 Banks, M. #, Chamany, K., and Smyth, D.S. Going Green in the Lab: Extent of Green Practices in Academic Labs. April 5th. STEM, Humanities and Social Justice, SENCER Regional Meeting. TNS, NY. Poster
- 2018 Banks, M. #, Chamany, K., and Smyth, D.S. Going Green in the Lab: Extent of Green Practices in Academic Labs. The 51st Annual Conference of the Metropolitan Association of College and University Biologists. October 27th. Queensborough College, NY. Poster
- 2018 Tumidajski, N. * Identification and Characterization of the Antibiotic-Resistant Staphylococci in the University Campus, and their enterotoxigenic potential. Westchester Undergraduate Research Conference. Mercy College. April 13th. Poster presentation.
- 2018 Delphin, S. *, & Coleman, M. * Staph on Snacks. Westchester Undergraduate Research Conference. Mercy College. April 13th. Poster presentation.
- 2018 Baruti, I. * Battle Against Antibiotic-Resistant Staphylococci. Westchester Undergraduate Research Conference. Mercy College. April 13th. Poster presentation.
- 2018 Cedino, J. * Living with the Enemy. Westchester Undergraduate Research Conference. Mercy College. April 13th. Poster presentation.
- 2018 Nyamadi, S. * The Study of Environmental Pathogens. Westchester Undergraduate Research Conference. Mercy College. April 13th. Poster presentation.

- 2018 Kennedy, B. *, & Ventura, E. * (2018). Exploring Microbial Communities in Urban Spaces: Staphylococci Colonization in a Mass Transit Environment. Westchester Undergraduate Research Conference. Mercy College. April 13th. Poster presentation.
- 2018 Taranis, S. *, Lyding, D. * and Pate, E. * (2018). Where the wild things grow. Westchester Undergraduate Research Conference. Mercy College. April 13th. Poster presentation.
- 2017 Tumidajski, N. *, and Smyth, D.S. Identification of the Antibiotic-Resistant Staphylococci in the University Campus, and their enterotoxigenic potential. The National Diversity in STEM conference, Salt Lake City, Oct 19-21. Poster presentation.
- 2017 Vegas, N. *, and Smyth, D. S. Microbiology of the built environment. The changing microbiome of Mercy College. Environmental Health AND Health of the Environment Conference, St Francis College, Nov 18th Oral Presentation
- 2017 Vegas, N. *, Babu, A. *, DeJesus, O. *, Danso, E. *, Lacarbonara, I. *, Coleman, M. *, Brown, A. *, Rodriguez, J. * Jordan, C. *, Eralte, J. *, Delphin, S. * and Smyth, D.S. The Last Bug Standing. Environmental Health AND Health of the Environment Conference, St Francis College, Nov 18th, 2017. Poster presentation. Poster
- 2017 Vegas, N. * and Smyth, D. S. Microbiology of the built environment. The changing microbiome of Mercy College. SENCER Regional Meeting. Molloy College, Long Island, NY. Poster
- 2017 Porconi, B. *, Surendran, G. and Smyth, D. S. The effect of benzethonium chloride and natural antibacterials on *agr*-dysfunctional Staphylococci. SENCER Regional Meeting. Molloy College, Long Island, NY. Poster
- 2017 Vegas, N. * and Smyth, D. S. Microbiology of the built environment. The changing microbiome of Mercy College. The American Society for Microbiology Annual Meeting. New Orleans, La. Poster
- 2017 Vegas, N. * and Smyth, D. S. Microbiology of the built environment. The changing microbiome of Mercy College. The 25th Annual CSTEP Conference, Lake George, Bolton Landing, NY. Poster
- 2017 Tumidajski, N. * and Smyth, D. S. Do antibiotic-resistant Staphylococci from the University cafeteria harbor enterotoxins? The 25th Annual CSTEP Conference, Lake George, Bolton Landing, NY. Poster
- 2017 Porconi, B. *, Surendran, G. and Smyth, D. S. The effect of benzethonium chloride and natural antibacterials on *agr*-dysfunctional Staphylococci. The 25th Annual CSTEP Conference, Lake George, Bolton Landing, NY. Poster
- 2017 Abdullah, K. *, Ahmad, K. *, Allen, R. *, Breed, E. *, De Jesus, O. *, Lucio, E. *, Ncube, C. *, Santhosh, S. * and Smyth D.S. Is the environment selecting for resistant Staphylococcus on high-contact fomites? The Westchester Undergraduate Research Conference. Manhattanville College. Poster
- 2016 Vegas, N. * and Smyth, D. S. Microbiology of the built environment. The changing microbiome of Mercy College. The 49th Annual Conference of the Metropolitan Association of College and University Biologists. October 29th, 2016. SUNY Old Westbury, NY. Poster
- 2016 Vegas, N. * and Smyth, D. S. Microbiology of the built environment. The changing microbiome of Mercy College. The Annual Biomedical Research Conference for Minority Students. November 9th to 12th 2016. Tampa, FL. Oral presentation
- 2016 Tumidajski, N. * and Smyth, D. S. Do antibiotic-resistant Staphylococci from the University cafeteria harbor enterotoxins? The Annual Biomedical Research Conference for Minority Students. November 9th to 12th 2016. Tampa, FL. Poster

- 2016 Mancini, D. * and Smyth, D. S. Exercising your immune system: A comparison of resistant *Staphylococcus aureus* populations in college gyms. The Annual Biomedical Research Conference for Minority Students. November 9th to 12th Tampa, Fl. Poster
- 2016 Porconi, B. *, Surendran, G. and Smyth, D. S. The effect of benzethonium chloride and natural antibacterials on *agr*-dysfunctional Staphylococci. The 49th Annual Conference of the Metropolitan Association of College and University Biologists. October 29th SUNY Old Westbury, NY. Poster
- 2016 Porconi, B. *, Surendran, G. and Smyth, D. S. The effect of benzethonium chloride and natural antibacterials on *agr*-dysfunctional Staphylococci. The Annual Biomedical Research Conference for Minority Students. November 9th to 12th Tampa, Fl. Poster
- 2016 Tumidajski, N. * Sullivan, K. * and Smyth D. Just how prevalent are antibiotic resistant Staphylococci: A Study of the Differences Between Campus Cafeterias. The 5th Annual Westchester Undergraduate Research Conference. April 15th. Mercy College, Dobbs Ferry, NY. Poster
- 2016 Mancini, D. *, Carcamo, T.A. * and Smyth D. Exercising Your Immune System: A Comparison of Resistant *Staphylococcus aureus* Populations in College Gyms. The 5th Annual Westchester Undergraduate Research Conference. April 15th. Mercy College, Dobbs Ferry, NY. Poster
- 2016 Hoyos, M. * Microbiology of the Built Environment: The changing microbiome of New York City College of Technology. The Emerging Scholars Symposium. CityTech, NY.
- 2015 Fontaine, F. *, Seto, J. and Smyth, D. S. Using next-generation sequencing technology to elucidate the microorganism diversity in different water sites in Brooklyn. The 48th Annual Conference of the Metropolitan Association of College and University Biologists. November 7th. Montclair State University, NJ. Poster
- 2015 Fontaine, F. *, Seto, J. and Smyth, D. S. Using next-generation sequencing technology to elucidate the microorganism diversity in different water sites in Brooklyn. The Annual Scientista Symposium. Oct 17th Microsoft Office, 11 Times Square, NY. Poster
- 2015 Hoyos, M. * and Smyth, D. S. Microbiology of the Built Environment: The changing microbiome of New York City College of Technology. The 48th Annual Conference of the Metropolitan Association of College and University Biologists. November 7th. Montclair State University, NJ. Poster
- 2015 Hoyos, M. * and Smyth, D. S. Microbiology of the Built Environment: The changing microbiome of New York City College of Technology. The Annual Scientista Symposium. Oct 17th. Microsoft Office, 11 Times Square, NY. Poster
- 2015 Malik, F. * Motivation in Microbiology: How can Peer-Led Team Learning Help with Student Motivation. The Emerging Scholars Symposium. CityTech, NY.
- 2015 Mawa, J. * Difficult vocabulary and peer-led team learning workshops. The Emerging Scholars Symposium. CityTech.
- 2014 Rasool, A. *, and D.S. Smyth. Promoting Critical Thinking Through Bloom's Taxonomy in BIO 1101 Peer-led workshops. In Proceedings of the Annual Conference, Peer-led Team Learning International Society. Talk.
- 2014 Fontaine, F. *, Lam, M. *, Tsang, W.P.K. *, and D. S. Smyth. Microbiology of the Built Environment: The changing microbiome of New York City College of Technology. In Proceedings of the Annual Biomedical Research Conference for Minority Students. Poster

- 2014 Massry, S. * How best to actively assess the success of reading strategies in peer-led team learning workshops in BIO1101. The Emerging Scholars Symposium. CityTech.
- 2014 Cobos, G. * How can peer-led team learning workshops address student learning styles to facilitate independent student reading in BIO1101? The Emerging Scholars Symposium. CityTech.
- 2014 Rasool, A. * Promoting critical thinking through Bloom's taxonomy in Bio1101 peer-led team workshops. The Emerging Scholars Symposium. CityTech.
- 2014 Fontaine, F. *, Lam, M. *, Tsang, K. * The Microbiology of the Built Environment: Investigating the Prevalence of Antibiotic-Resistant Bacteria in Different Sites at City Tech, Promoting critical thinking through Bloom's taxonomy in BIO1101 peer-led team workshops. The Emerging Scholars Symposium. CityTech, NY.

SERVICE

(underlined service indicates leadership role)

Departmental Service

At A&M-SA

1. Chairperson Natural Sciences - Fall 2025
2. Member of Search Committee for Assistant Professor Professional Track Microbiology Fall 2025
3. FEC Tenure Track Rubric Development Task Force Chair
4. Chair of the Tenure Track FEC Fall 2025
5. Member of Tenure Track FEC
6. Chair of the Promotion and Tenure Committee – Fall 2024
7. Natural Sciences Senate Representative Fall 2024 to Spring 2025
 - Chair of the Workload Taskforce Committee
 - Chair of the Core Curriculum Committee
8. Chair of Search Committee for Analytical Chemist Fall 2024 to Spring 2025
9. Appointed Biology Program Coordinator - Summer 2024 to Spring 2025
 - Advising, course development, and catalog updating. Support of assessment efforts.
10. Brought a team of faculty to the Tiny Earth Partner Instructor Summer Training in Madison, Wisconsin, 2024
11. Represented the Biology Program at VIVA San Antonio at the Witte Museum/UTSA - April 2024, 2025, 2026
12. Helped with the Science Olympiad – 2024, 2025
13. Co-Chair of the Molecular/Developmental Professor Search Committee - Fall 2023
14. Member of the Promotion and Tenure Committee – Fall 2023 to Spring 2024
15. Member of the search committee for the Laboratory Manager - Summer 2023
16. Co-Chair of the Open Rank Professor in Community Health Committee - Spring 2023
17. Member of the Assistant Professor in Community Health Committee - Spring 2023
18. Serving on the Biology program review committee – 2022 to 2024
19. Chair of the Promotion and Tenure Committee – Fall 2022

20. Member of the Promotion and Tenure Committee – 2021 to present
21. Member of the search committee for an Admin Assistant - Summer/Fall 2022
22. Member of the Faculty Evaluation Committee - 2021 to present
23. Biology Assessment Coordinator – 2021 to Summer 2024
24. Helped with the Science Olympiad - 2022
25. Member of the Pre-Med Task Force – 2021

At Mercy College (School of Health and Natural Sciences, SHNS)

1. Served as Department Chair at Mercy College from 2016-2018.
 - Oversaw scheduling of courses, hiring of adjuncts, full-time faculty, and staffing for upwards of 180-course sections per semester across three campuses.
 - Led the department in several curricular innovations including the development of Classroom Undergraduate Research Experiences (CUREs) and implementation of Project-Based Learning (PBL), program and departmental assessment, and accreditation processes.
 - Oversaw the renovations of laboratories and new classrooms at three campuses.
 - Led the development of standard operating procedures and protocols
2. Team leader for the Departmental Project-Based Learning team.
 - Successfully applied to and attended a summer workshop for PBL at Worcester Polytechnic Institute
 - Established PBL initiative in the Natural Sciences Department
3. Team leader for the departmental Blackboard Shell project.
 - Helped faculty develop Blackboard shells for pedagogical and course materials to assist adjunct faculty for several courses in the department
4. Leader of the Biology assessment team.
 - Successfully developed several assessment budget linkage proposals to fund initiatives in the department including Project-Based Learning and Placement Tests
5. Member of the Health Science Task Force (2016 - 2018)

Service to New York City College of Technology, CUNY (CityTech)

1. Member and subsequently Chair of the Safety Committee at CityTech (2012 - 2015)
2. Member and subsequently Chair of the Social/Seminar Committee at CityTech (2012 - 2015)
3. Served as an advisor, Internship Coordinator, and Student Club faculty sponsor for the Biomedical Informatics Program (BIB) at CityTech. Was BIB Program Coordinator in Spring 2016.

College and University Service

At A&M-SA

1. Director for Research Development and Administration since March 2025
 - a. Assumed partial role of the Vice Provost for Research. Responsible for pre and post award, workshops and professional development, liaison to SRS at system, oversight of research council and grants,

oversight of the Council of PIs, oversight of limited submission process and research excellence fund at system. Organization of the RISE week, including the student research symposium.

2. Presidential Faculty Fellow for Research Development
 - a. Development of the faculty research database, upgrading of the website. Protocol and procedure development. Support of the research council. Support of the Council of PIs (CPI).
3. One of four university representatives at the CIMER Entering Mentoring Facilitator Training
 - a. Hosting online training and in-person workshops for the inaugural mentors for the INSPIRE REU
4. Member of the Strategic Planning Committee 2026
5. Member of the Search Committee for the Vice President for Research 2025-2026
6. Member of Search Committee for Philanthropic Grant Writer Summer to Fall 2025
7. Member of Search Committee for Post Award Coordinator Fall 2024-Spring 2025
8. Developed a new undergraduate program in Biomedical Sciences - Submitted for consideration in Fall 2024
 - a. Developed the degree plan
 - b. Developed 6 new courses
9. Co-Chair of the Inaugural Council of Principal Investigators - Sept 2023 to August 2025, now former chair
10. Vice-Chair of the Institutional Biosafety Committee – August 2023 to present
11. Member of the Post Award Coordinator Search Committee - Summer to Fall 2023
12. Member of the 8-member Inaugural Council of Principal Investigators - Spring 2023 to Sept 2023
13. Member of the Water Resources Science and Technology Program Advisory Board - 2022 to 2024
14. Member of the Institutional Biosafety Committee – 2021 to Aug 2023
15. Member of the Core Curriculum Committee – Represent Life Sciences, now Biology – 2021 to Aug 2025
16. Member of the Health Initiatives Committee - Spring 2021 to Spring 2023

At The New School (TNS)

1. Served on the Search Committee for Assistant VP of Sponsored Programs at TNS
2. Member of the TNS University Research Council 2020-21
3. Appointed to the TNS COVID Recovery Working Group for The New School, Summer 2020
 - o Served throughout the pandemic
 - o Helped develop protocols for reopening safely
 - o Wrote a whitepaper on risks associated with reopening
 - o Supported staff and students to tailor protocols for safe reopening
4. Joined the Pilot of Faculty Guild for TNS in 2019
5. Represented Eugene Lang College on the inaugural Budget Advisory Council - 2019-2021
 - o Elected Co-Chair of the Council (represented the faculty - staff, and students had their co-chair).
 - o Served on the Purpose and Charge Subgroup in the Summer of 2019 to develop the BAC
6. Faculty Advisor for New School Chapter Alpha Delta in 2019-2021
7. Represented Eugene Lang for Open House, Fall 2019
8. Represented Eugene Lang for Admitted Students Day, Spring 2019

9. Served on the Lang Academic Excellence Committee, 2018-21
10. Attended the First-Generation Student Luncheon & graduation celebration ceremonies 2018-2019
11. Served on two University Level Search Committees in 2018 to identify
 - Office of Sponsored Research Director
 - Tishman Environmental and Design Center Coordinator
12. Established and Directed the Biosafety Level 2 Laboratory at TNS.
 - First biology research lab at the University.
 - Was C14 licensed.

At Mercy College (School of Health and Natural Sciences, SHNS)

1. Peer-Led Team Learning activity director for Title III DOE grant.
 - Developed Peer Leader training course for Fall 2017.
 - Oversaw the recitations in the department and led pre-semester training of the peer leaders.
2. Application reviewer and committee member for the Mercy Internship Committee (Fall 2016)
3. Mercy Environmental Health and Safety Committee Lab Safety representative (2017 - 2018)
4. Helped establish Mercy's General Education Reading Committee – co-chair with Dr. Richard Medoff
5. Member of the General Education Advisory Council at Mercy (2016 - 2018)
6. Team leader for the School of Health and Natural Sciences (SHNS) CURE project. Led faculty to develop CUREs in introductory biology and chemistry courses
7. Worked with the Center for Teaching and Learning to implement the Pulse on Learning project in SHNS. Helped develop the lab-based assessment tool
8. Member of the SHNS Clinical Laboratory Sciences assessment team
9. Served on several SHNS school-wide search committees for faculty and staff (Nursing, PA, Clinical Laboratory Sciences, Biology)
10. Mercy Space Planning Committee SHNS representative (2017 - 2018)
11. Member of the SHNS Academic Integrity Task Force (2017 - 2018)
12. Member of the SHNS Lab Safety Committee at Mercy (2016 - 2018)
13. Member of the SHNS Technology Committee at Mercy (2016 - 2018)

At New York City College of Technology, CUNY (CityTech)

1. Member of Research and Grants, School of Arts and Sciences Research and Grants, Biomedical Informatics and Lab Improvement Committees at CityTech (2012 - 2015)
2. Professional Staff Congress CUNY Grant Reviewer 2013-2014
3. CityTech liaison to the Physician's Assistant program at SUNY Downstate. This role involved advising students who wished to apply and forging ties between the two schools.
4. CityTech representative to The New York City Department of Education/CUNY Library Collaborative: Bridging the gap between High School and College. The workshop white paper is [here](#)
5. Biology Liaison for the Reading Effectively across the Disciplines initiative at CityTech.

- Helped establish the project, which involved the incorporation of reading assignments to encourage textbook use by our students and to improve their reading skills.
 - Developed Peer-Led Team Learning for the Biology program at CityTech
 - Wrote papers, provided professional development across the institution in high-impact practices, and presented and gave workshops externally and at local and national conferences.
6. Served as an advisor, Internship Coordinator, and Student Club faculty sponsor for the Biomedical Informatics Program (BIB) at CityTech. Was BIB Program Coordinator in Spring 2016.

Service to the Profession of Microbiology

1. Developed and finalized the ASM Curriculum Guidelines 2.0 as part of the Task Force
2. Strategic Partner for ASMCUE Conference Planning Committee 2024 to Fall 2025.
3. Chair of the Texas Branch American Society for Microbiology (ASM) review committee for the Goldschmidt faculty mentoring and education awards - 2023 to present
4. Education Session Chair and Organizer for the Texas Branch ASM Spring 2023 Meeting
5. Member of the [ASM Curriculum Guidelines 2.0 Taskforce](#)
6. Volunteer for American Society for Microbiology Conference for Undergraduate Education (ASMCUE) 2022 - moderator and facilitator
7. Served as ASMCUE microbrew reviewer 2021, 2022, 2023, 2024

Service to the Scientific Community (Reviewing, Board and Leadership Service, Mentoring)

1. Center for Managed Technical Services (CMTS) Advisory Board - Fall 2026
2. In person poster judge for ABRCMS 2025
3. Elected to the Community Conservation Committee of SAWS in Jan 2025 - Fall 2026
4. Search Committee external member UTSA Microbiology Faculty Search in Fall 2024
5. External letter writer/reviewer for 1 faculty member's tenure and promotion in 2024
6. NSF Panel Reviewer 2023, 2024
7. Peer Review Board member of *InSight: A Journal of Scholarly Teaching* 2023
8. Serve on the Institutional Biosafety Committee of Texas Biomedical Research Institute - 2023 to present
9. External letter writer/reviewer for 2 faculty members' tenure and promotion in 2022
10. Search Committee external member UTSA Microbiology Faculty Search in Spring 2023
11. Reviewed sessions for the 2023 AAAS Science for Humanity Conference
12. Judge and mentor for the SA Smart Challenge 2022
13. Serve on the Advisory Board for NSF Grant of Meredith Frey at Sarah Laurence from 2022 to Fall 2025
14. Board Member of BioQuest 2022 to 2026
15. Continuing member of the IGELS Steering Committee (Led by Gordon Uno)
 - Co-team leader for Professional Development with Heather Rissler
16. Serving as a PULSE Ambassador since Spring 2021
17. Selected participant in the STEM Futures: Future Substance of STEM Education Project

18. Spring 2021 SENCER Assessment and QUBES Faculty Mentoring Network Mentor
19. BIOME 2020 MICRObiome Working group facilitator 2020-2021
20. *ad hoc* reviewer for NSF
21. Invited participant in 21st Century Professional Development in Undergraduate Life Sciences Education 2019
22. Poster judge at NYC Regional SEA-Phages Symposium, SUNY Old Westbury, 2019
23. Abstract reviewer for SABER 2019
24. Consultant for “Bridging to STEM Excellence” project at the University of Richmond 2019-2020
25. Elected a PULSE fellow in 2019
26. Steering committee member for REMNet (RCN-UBE) at Brooklyn College, 2019-2020
27. External committee member for HHMI Inclusive Excellence Award to Mercy College, 2018-2020
28. External consultant for Peer-Led Team Learning Project at Mercy College, 2018-2020
29. Abstract reviewer for ABRCMS 2017 and SACNAS 2017
30. SENCER consultant for “Using Civic Engagement to Help Implement the Next Generation Science Standards 2016 and 2017. Rider University, NJ
31. External reviewer for the CUNY Research Scholars Program 2016
32. External reviewer for the Biomedical Informatics Internship course at CityTech, NY
33. Served as a SENCER Senior Leadership Fellow. Mentoring Heather Pelzel, University of Wisconsin
34. Served as a PALM mentor to Carlos Goller 2019-2020
35. Poster Judge at ABRCMS 2015 - 2016
36. Poster Judge at MACUB 2015 - 2019
37. Postdoctoral representative for NYMC for Science Alliance at the New York Academy of Sciences 2007-2009
38. Judge for the Westchester Science and Engineering Fair and the NYC Science and Engineering Fair 2007-2008
39. An active member of ASM, BioQUEST, QUBES, AAAS, and NABT.

Journal Editing and Reviewing

1. Invited to join BMC Microbiology as associate Editor 2026
2. Guest Editor for a special edition of BMC Infectious Diseases: “[Genomics of Infectious Disease](#)”, 2025, 2026
3. Associate Editor for JMBE Perspectives Dec 2024 to present
4. Guest Editor for a special edition of Frontiers in Microbiology: “Using Case Study and Narrative Pedagogy to Guide Students Through the Process of Science”, 2023 to 2024
5. Guest Editor for a research topic of Frontiers in Microbiology: “Insights in Systems Microbiology 2022/2023”
6. Continuing Editor for BMC Infectious Diseases
7. Continuing Associate Editor for Science Education and Civic Engagement: An International Journal
8. Appointed Associate Editor for Frontiers in Microbiology and Frontiers in Bioengineering and Biotechnology: Systems Microbiology 2021. Continuing Editor for a special series of Frontiers in Microbiology: Tools, Techniques, and Strategies for Teaching in a Real-World Context with Microbiology
9. Guest Editor for a special edition of Frontiers in Microbiology: Tools, Techniques, and Strategies for Teaching in a Real-World Context with Microbiology, 2020-2021 – received 26 submissions

10. Served as Associate Editor for PLOS ONE
 - a. Selected as a Handling Editor for a special edition called “Microbiome Across Biological Systems”
11. Current Associate Editor for BMC Infectious Diseases

Organized/Co-Organized/Event Hosting

1. ASMCUE 2025 Organizing Committee member
2. Co-organized the “Infectious disease surveillance through wastewater analysis” in Lorentz, the Netherlands - Oct 7-11th 2024
 - a. <https://www.lorentzcenter.nl/infectious-disease-surveillance-through-wastewater-analysis.html>
3. Co-organized the National REMNet Meeting at TAMUSA Summer 2024 - 3-day microbiome workshop for faculty and graduate students.
4. Co-organized and hosted “Humanizing STEM: Higher Education’s Role in Realizing the Social Contract for Science” SENCER Summer Institute 2024 – 4-day online conference
 - a. Organized the Water Research and Education Track
5. Organized and co-hosted a 2-week REU as part of the WaTR grant in August 2024
 - a. 4 WATR students were hosted in the Smyth and Den lab.
6. Co-organized the SENCER Summer Institute 2023 – 4-day online conference
 - a. Organized the Water Research and Education Track
7. Co-organized the “Critical Contexts and Critical Pedagogies for STEM Learning - Advancing democracy, Social Justice and Care in STEM Education” - SENCER Summer Institute 2022 – 3-day online conference. On Zoom.
8. Co-organized the “Intersections in Assessment” Conference funded through the National Science Foundation with Judy Koke. 2022. May-June. On Zoom.
9. Co-organized the SENCER Summer Institute 2022 – 4-day online conference
10. Facilitated the online poster sessions for the Tiny Earth Winter Symposium 2021
11. Co-organized the SENCER Summer Institute 2021 – 12-day online conference
12. Served on the Tiny Earth Summer Symposium Planning Committee 2021
13. Assisted with the organization of the MID SCI SENCER regional 2021
14. Assisted with the organization and poster reviewing at MACUB 2020
15. Assisted and helped organize the poster session at SABER 2020
16. Helped coordinate the Marvelous Microbes exhibit at TNS 2020. Curated by undergraduates Simon Chen and Molly Metz.
17. HHMI Adjunct Academy (2019). Co-organized the workshop on Classroom-Based Undergraduate Research Experiences and Project-Based Learning with Madhavan Narayanan at Mercy College.
18. STEM, Humanities and Social Justice (2019). April 5th. SENCER Mid-Atlantic Regional Meeting. TNS. NY. Co-organized with Katayoun Chamany
19. Illumina Library Prep Workshop Using the Nextera DNA Flex for Bacterial WGS. Host.
20. Innovation through Collaboration Symposium. Jan 18th 2018. LaGuardia Community College, Long Island, NY.
21. The Mid-Atlantic and New England Pulse Regional Meeting at Mercy College. Oct 6th, 2017. Host.

- 22. Hosted regional CUREnet institute with Erin Dolan. Mercy College. Feb 16-17th. 2018. Host.
- 23. Co-organized Mercy College STEM Day 2017
- 24. Organized 4 “Scientific Teaching” workshops at CityTech 2013-2014 with Matthew Marcello

Professional Development Workshops Offered and Community Outreach

- 2023 **Smyth, D.S.**, and guests. Faculty positions in academia. What you can be with a Ph.D., A Science and Technology Focused Career Convention. Oct 22nd. Online. Panel Moderator.
- 2023 **Smyth, D.S** and Akif Uzman. Program evaluation at Trinity University. Aug 17th. San Antonio.
- 2023 **Smyth, D.S.** [Women in STEM Panelist](#). An event at Palo Alto College.
- 2022 **Smyth, D.S** and 3 others. PULSE Meeting at University of Houston Downtown. Aug 26-17th. Houston.
- 2020 **Smyth, D.S and others.** BioBus Town Hall – COVID-19 and the Immune System. May 7th. Zoom Panel
- 2020 **Smyth, D.S., and others.** BioBus Town Hall – How do we get sick? April 23rd. Zoom Panel
- 2019 **Smyth, D.S.** Faculty positions in academia. What you can be with a Ph.D., A Science and Technology Focused Career Convention. Oct 20th NYU Langone Medical Center, NYC. Panel.
- 2017 **Smyth, D.S.** Faculty positions in academia. What you can be with a Ph.D., A Science and Technology Focused Career Convention. Nov 5th. NYU Langone Medical Center, NYC. Panel.
- 2015 **Smyth, D.S.** Careers in Teaching and Education. What you can be with a Ph.D., A Science and Technology Focused Career Convention. Oct 25th, 2015. NYU Langone Medical Center, NYC. Panel Presentation.
- 2014 **Smyth, D. S.**, and others. Emerging Trends in Biotech as part of the TECH U entrepreneurship symposium of Brooklyn Tech Triangle (<http://vimeo.com/93374319>). Panel presentation “Women in STEM”. Presented as a panelist on the challenges of being a woman in STEM in Spring at CityTech.
- 2014 **Smyth, D.S.** The intrinsic value of art and science. Panel presentation as part of the Underground Zero Project, July, NYC.
- 2014 **Smyth, D.S.** Lessons learned from bacterial networks. How to land and keep that academic job. New York Medical College. June. NYMCPA Seminar Series. Invited Talk
- 2014 **Smyth, D. S.**, and others. Emerging Trends in Biotech as part of the TECH U entrepreneurship symposium of Brooklyn Tech Triangle. Panel presentation
- 2014 “Women in STEM”. Presented as a panelist on the challenges of being a woman in STEM in Spring at CityTech.