Davida Suzanne Smyth, PhD

Professor of Biology

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WORK ADDRESS

Texas A&M University-San Antonio
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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 the NSF-funded WaTR^3 project working to increase recruitment to the water workforce. Co-PI of the 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 & Carski Award Winner in 2024.

STATEMENT ON ACADEMIC LEADERSHIP

I truly believe that the needs of the many outweigh the needs of the few and in my case, the one. I came to America to begin my research career in microbiology and have since devoted my career to improve 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. I believe that the best departments, colleges and universities excel when all excel and the cumulative expertise, skills and resources are used to bring everyone along. Described as a catalyst, as I love to collaborate, network and make effective connections between people, among organizations and identifying and locating the resources they need and what can offer to others.

ACADEMIC APPOINTMENTS

09/24 -	Presidential Faculty Fellow for Research Development, Texas A&M University-SA
09/24 -	Professor, Department of Natural Sciences
08/24 -	Biology Program Coordinator, Department of Natural Sciences
07/24 -	ASM Distinguished Lecturer, American Society for Microbiology
04/24 -	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
10/18 – 07/21	Affiliated Faculty of the Tishman Environment and Design Center, The New School
08/18 – 07/21	Associate Professor, Natural Sciences and Mathematics, Eugene Lang, The New School
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, NY
02/14 – 08/15	Internship Coordinator, Biomedical Informatics, New York City College of Technology, NY
08/12 – 08/15	Assistant Professor, Biological Sciences, New York City College of Technology, NY
08/12 – 01/18	Research Scientist, Infectious Diseases, Skirball Institute, New York University
01/11 - 05/11	Adjunct Instructor, Microbiology, Stern College for Women, Yeshiva University, NY

RESEARCH

Research Awards

2024	Selected as ASM Distinguished Lecturer
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 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 25, i10 index is 35, and I have 2717 total citations. My ORCID ID: https://orcid.org/0000-0002-4049-0337

1. 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.

2. 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
3. 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
4. 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. I am a co-corresponding author. DOI: doi.org/10.1021/acs.estlett.2c00243
5. 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
6. 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
7. **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., Teixeiro, E., Daniels, M., Johnson, M.C., and Dennehy, JJ. (2022). Tracking Cryptic SARS-CoV-2 Lineages Detected in NYC Wastewater. Nature Communications. 13(635). DOI: doi.org/10.1038/s41467-022-28246-3
8. 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.
9. **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
10. 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
11. 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
12. 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
13. 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

14. 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
15. **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
16. 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
17. **Smyth DS**, Wong A, Robinson DA. Cross-species spread of SCC*mec* 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
18. 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
19. 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
20. **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
21. 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
22. **Smyth, D. S**., and D.A. Robinson. (2010). Population genetics of Staphylococcus. *In Bacterial Population Genetics in Infectious Disease,* Edited by D. Ashley Robinson, Daniel Falush and Edward J. Feil. John Wiley & Sons, Inc.
23. **Smyth DS**, Robinson DA. Integrative and sequence characteristics of a novel genetic element, ICE6013, in *Staphylococcus aureus*. J Bacteriol. 2009 Oct;191(19):5964-75. PubMed PMID: 19648240. DOI: 10.1128/JB.00352-09
24. **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

25. Moise PA, **Smyth DS**, Robinson DA, El-Fawal N, McCalla C, Sakoulas G. Genotypic and phenotypic relationships among methicillin-resistant *Staphylococcus aureu*s from three multicentre bacteremia studies. J Antimicrob Chemother. 2009 May;63(5):873-6. PubMed PMID: 19261624. DOI: 10.1093/jac/dkp047
26. Collery MM, **Smyth DS**, Tumilty JJ, Twohig JM, Smyth CJ. Associations between enterotoxin gene cluster types egc1, egc2, and egc3, agr types, enterotoxin, and enterotoxin-like gene profiles, and molecular typing characteristics of human nasal carriage and animal isolates of *Staphylococcus aureus*. J Med Microbiol. 2009 Jan;58(Pt 1):13-25. PubMed PMID: 19074649. DOI: 10.1099/jmm.0.005215-0
27. 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
28. Collery MM, **Smyth DS**, Twohig JM, Shore AC, Coleman DC, Smyth CJ. Molecular typing of nasal carriage isolates of *Staphylococcus aureus* from an Irish university student population based on toxin gene PCR, agr locus types, and multiple-locus, variable number tandem repeat analysis. J Med Microbiol. 2008 Mar;57(Pt 3):348-58. PubMed PMID: 18287299. DOI: 10.1099/jmm.0.47734-0
29. Guinane CM, Sturdevant DE, Herron-Olson L, Otto M, **Smyth DS**, Villaruz AE, Kapur V, Hartigan PJ, Smyth CJ, Fitzgerald JR. Pathogenomic analysis of the common bovine *Staphylococcus aureus* clone (ET3): emergence of a virulent subtype with potential risk to public health. J Infect Dis. 2008 Jan 15;197(2):205-13. PubMed PMID: 18177250. DOI: 10.1086/524689
30. 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
31. 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
32. **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
33. **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
34. **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

In Revision/Review

- **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.
- Den, W. and **Smyth, D.S.** The Ebb and Flow of the Water Workforce. In revision at the Texas Water Journal.

- MoBE Consortium: Core Principles for Responsible Development of Microbiome Engineering in the Built Environment. In review at Nature Microbiology.

In Preparation

1. Eralte, J., Metz, M., Vegas, N., Tumidajski, N. and **Smyth, D.S.** (2022). Hand dryers as potential reservoirs for antibiotic-resistant Staphylococci? In preparation for PLOS One.
2. Vegas, N., Metz, M., Eralte, J., Tumidajski, N. and **Smyth, D.S.** (2022). Do antimicrobial paints do what they say they do on the tin? In preparation for the Journal of General Microbiology.
3. Seto, J., Adams-Beyea, A., Fontaine, F. and **Smyth, D. S.** (2022) Seasonal and functional diversity of microbial inhabitants across three NY water sites. In preparation for J. Appl. Microbiology
4. Hassan MI, Smyth DS and Teufel, AI (2025). Network Analysis of Antimicrobial Resistance in *Staphylococcus aureus*: Identification of Hub Genes and Potential Therapeutic Targets.
5. The Wastewater-Based Surveillance Lorentz Consortium (2025). Eight key questions for advancing wastewater-based pathogen surveillance for public health emergencies

Conference Papers, Book Reviews, and Other Publications

1. **Smyth, D.S.** Microbes: The Life-Changing Story of Germs. The Quarterly Review of Biology. 2022. 97(3) 219-220.
2. **Smyth, D. S.** Silent Travelers. In Science Education and Civic Engagement: An International Journal. 2019 11(1):50-63. Book Review.
3. **Banks, M., Smyth, D.S.** (2018). Pathogens and plastic: Sustainable Science at the New School. Available from https://tishmancenter.org/pathogens-and-plastic-sustainable-science-at-the-new-school/
4. **Smyth**, **D.S.,** and others from The New School. (2018). How To Close The Gap: What We Need To Do and What We Actually Do About Climate Change. Available from https://medium.com/@TheNewSchool/winning-slowly-is-the-same-as-losing-bf69a6e8bde2
5. **Smyth, D. S (2014)**. Antibacterials In Building Products: The Good, The Bad and the Downright Ugly. Available from: http://www.healthybuilding.net/news/2014/11/19/antibacterials-in-building-products-the-good-the-bad-...
6. 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

Funded Research Grants while at A&M-SA

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

Internal ($40000 since 2021)

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 ($534604 since 2021)

2024 NSF Subaward - Addressing Water Security: towards Student Retention, Improved Relevance, and Increased Readiness ($59981) – PI

2023 Eco Lab – 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

2023 Secured anonymous donation to the National Center for Science and Civic Engagement to support Wastewater Based Education Fellows Program ($60000) - 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 Eco Lab – Submitted by mentee Gloria Rodriguez ($5000) – Mentor

2021 Eco Lab – 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

Appropriations Request

2024 Tracking Waterborne Microbial Contaminants of Concern in Bexar County - Request made by Congressman Castro FY2025 ($1,000,000)

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

2024 MCI Pilot PUI: Combined air and waterborne surveillance for the detection of pathogenic microbes and predatory phages ($326580) - submitted Mar. PI. 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, revising.

2023 Texas Water Resources Institute Faculty Fellows Program - not funded, will reapply.

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 Submitted a white paper for the CDC Broad Agency Announcement 75D301-22-R-72097 - not successful.

Funding & Research Grants at The New School

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

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) – funds 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) – funds 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) – funds a student research assistant

Submitted Grants at The New School

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)

2016 Department of Defense Grant, Principle Investigator, Mercy Initiative for Undergraduate Research and Education in Genomics, ($142,771.75) for the components of a genomics system, an Ion S5

2017 Mercy Faculty Development Grant "Antimicrobials in Building Products" ($3000)

2017 Mercy College Student/Faculty Research Collaborative Grant ($1500)
2016 Mercy Faculty Development Grant “"Using 'Omics' approaches to investigate the prevalence and persistence of pathogens (P3) in the Mercy Campus" ($3000)
2015 Mercy Faculty Development Grant ($3000)
2014 Two Biological Sciences Department Research Grants ($19000) – PI and Co-PI
2015 Professional Staff Congress CUNY Type C Award ($3000)
2014 Professional Staff Congress CUNY Type C Award ($3000)
2013 Professional Staff Congress CUNY Type B Award ($6000)
2012 Graduate Research Technology Initiative Grant (GRTI) ($30826), Principal Investigator

Research Publicity

1. Quoted in Nature https://www.nature.com/articles/d41586-024-03009-w
2. Featured on KSAT https://www.ksat.com/news/local/2024/07/29/texas-am-university-san-antonios-wastewater-contamination-project-gets-federal-boost/
3. Featured on San Antonio Report https://sanantonioreport.org/what-germs-are-in-our-water-this-tamusa-scientist-and-her-students-are-finding-out/
4. Featured on San Antonio Express https://www.expressnews.com/news/article/wastewater-covid-bacteria-surveillance-san-antonio-19580144.php
5. 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
6. Featured on Hoodline https://hoodline.com/2024/07/texas-a-m-university-san-antonio-leads-groundbreaking-wastewater-pathogen-detection-initiative/
7. Quoted on Axios https://www.axios.com/local/des-moines/2023/07/07/iowa-struggling-emerging-covid-19-variants
8. 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
9. Featured on MedPage Today https://www.medpagetoday.com/special-reports/exclusives/100397
10. Featured on NPR https://www.npr.org/podcasts/564572329/the-academic-minute
11. Featured on Inside Higher Ed https://www.insidehighered.com/audio/2022/06/03/what-municipal-wastewater-can-teach-us-about-covid-19
12. Academic minute June 3rd, 2022, https://academicminute.org/2022/05/this-week-on-the-academic-minute-2022-05-30/

13. Featured in the Irish Examiner https://www.irishexaminer.com/lifestyle/healthandwellbeing/arid-40843904.html
14. 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
15. 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
16. Featured in the San Antonio Express https://www.expressnews.com/news/local/article/Sewage-COVID-strains-17007748.php
17. Featured on BBC World Service radio March 17th, 2022, https://www.bbc.co.uk/programmes/w3ct1l55
18. 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/
19. Quoted on How Stuff Works https://science.howstuffworks.com/life/cellular-microscopic/tracking-coronavirus-wastewater.htm
20. Quoted on Live Science https://www.livescience.com/author/stephanie-pappas
21. Quoted in Thrillist https://www.thrillist.com/news/new-york/nyc-rats-developed-their-own-covid-strain
22. The project was mentioned on Late Night with Colbert https://twitter.com/ProfSmyth/status/1490063083401879555?s=20&t=krfpi8tK9AcHb1_mxcUwMg
23. Featured in the NY Times https://www.nytimes.com/2022/02/03/health/coronavirus-wastewater-new-york.html
24. Featured in the NY Times https://www.nytimes.com/2022/01/19/health/covid-omicron-wastewater-sewage.html
25. 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
26. Featured on SA Smart Chats https://www.youtube.com/watch?v=7c6Kk9_wH94 Jan 26th, 2022
27. Featured on A&M SA Today https://news.A&M-SA.edu/professors-provide-their-sustainability-insights/ 19th Nov 2021
28. Featured on A&M-SA's Instagram https://www.instagram.com/p/CVfhQMYFcbF/ Oct 26th, 2021
29. 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
30. 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
31. Featured on This Week in Virology. Recorded March 30th, 2021, on https://www.microbe.tv/twiv/twiv-737

32. Quoted on Eating Well magazine on http://www.eatingwell.com/article/7872064/how-to-plan-a-safer-holiday-cookie-exchange-this-year/
33. Featured on The New School Blog https://blogs.newschool.edu/news/2020/11/eugene-lang-faculty-member-davida-smyth-lends-her-expertise-to-the-big-fib/
34. Featured on the NCSCE website https://ncsce.net/ncsce-announced-new-appointments/
35. Featured on The New School website https://blogs.newschool.edu/news/2020/08/davida-smyth-explores-the-connections-between-science-and-society-in-eugene-lang-colleges-interdisciplinary-science-program/
36. https://www.westchestergov.com/home/all-press-releases/8571-westchester-partners-with-city-university-of-new-york-for-innovative-covid-19-wastewater-treatment-study
37. Featured on QCC website https://www.qcc.cuny.edu/news/2020/08/Finding-Covid-19.html
38. Featured on The New School website https://www.newschool.edu/new-approaches
39. Featured on the Eugene Lang Facebook page https://www.facebook.com/watch/?v=187236315931970
40. Featured on the TedC Blog https://www.tishmancenter.org/blog/connecting-the-dots-12-perspectives-on-coronavirus-lessons-for-climate-change
41. Interviewed for the New School 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/
42. Mentioned on the Texas Woman's University website https://twu.edu/chemistry-biochemistry/department-and-alumni-news/2020-sencer-symposium-recap/
43. Smyth Lab was featured on the New School Twitter and Instagram https://twitter.com/EugeneLang/status/1230926642043871233
44. 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/
45. Oct 23rd, 2020. Disney+ "The Big Fib". Served as the Germ expert. Season 1. Episode 19.
46. 500 Women Scientists-Person Place Thing Series. (n.d.). Retrieved from https://personplacething.org/episode-270-davida-smyth/
47. Quoted by the New School Free Press http://www.newschoolfreepress.com/2018/12/12/racquel-samuel-from-first-gen-student-to-first-gen-leader
48. 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/

49. /@TheNewSchool. (2018, September 07). Eugene Lang College Faculty: News Highlights - The New School. Retrieved from https://medium.com/@TheNewSchool/eugene-lang-college-faculty-news-highlights-f2bffc1ad018
50. Marketmercy. (n.d.). Mercy Magazine Jan 2018. Retrieved from https://www.flipsnack.com/9ACC88A6AED/mercy-magazine-jan-2018-ft3ezaafh.html (Page 4)
51. Meet Prof. Davida Smyth. (n.d.). Retrieved from https://www.facebook.com/MercyAlumni/videos/10155364163861781/
52. Intrinsic Value Project # 1 by Heather Denyer https://undergroundzeronyc.org/blog/intrinsic-value-project-1-by-heather-denyer/
53. 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

2024 **Smyth, D.S.** One Health Course. Uruguay. 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.

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**. 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

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.** 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.** Waste not want not. March 25th. Texas Branch Meeting of ASM. Online talk.

2022 **Smyth, D.S.** Waste not want not. SENCER Center of Innovation MidAtlantic. Spring Regional Symposium. Jan 15th. Plenary.

2022 **Smyth, D.S.** Waste not want not. Feb 18th. Texas Woman's University. In-person seminar.

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.** 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.** Tracking SARS-CoV-2 in NYC wastewater: A tail. Oct 28th. Guest lecture at The New School 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.

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.** 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.** What bacteria can tell us about the built environment? Sept 4th. Invited seminar. Queens College.

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. The New School. NY. Invited Talk.

2019 **Smyth, D.S.** Sustainable Science: When pathogens enter the lab. Feb 11th. Waste and Justice University Lecture course. Guest Lecture

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 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 **Smyth, D.S.** What makes Superbugs super and how can we resist them? Biomedical Informatics Colloquium. December 5th. New York City College of Technology, Brooklyn, NY. Invited Talk

2018 **Smyth, D.S.** Resisting superbugs in the built environment. The New School. Jan 29th. Invited Talk.

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 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.** 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 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 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.

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

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) – Oral presentation 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)– Oral Presentation

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

Research 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 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

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.

2015 **D. S. Smyth,** M. Lam, W.P.K. Tsang, and Fabiola Fontaine. Microbiology of the Built Environment: The changing microbiome of New York City College of Technology. 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 New York City College of Technology. Microbes in the city: Mapping the urban genome. New York Academy of Science, NYC. June 19th.

2014 **Smyth, D. S**. The role of mobile DNA in Staphylococcus aureus adaptation. 10th Annual Faculty Recognition Day. New York City College of Technology.

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 and @Graduate Student Mentees

2025 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. Oral presentation.

2025 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 haemolyticus.* 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. The New School, 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. New York City College of Technology.

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 Time 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 Time Square, NY. Poster

2015 Malik, F.* Motivation in Microbiology: How can Peer-Led Team Learning Help with Student Motivation. The Emerging Scholars Symposium. New York City College of Technology.

2015 Mawa, J.* Difficult vocabulary and peer-led team learning workshops. The Emerging Scholars Symposium. New York City College of Technology.

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. Oral Presentation

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. New York City College of Technology.

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. New York City College of Technology.

2014 Rasool, A. * Promoting critical thinking through Bloom's taxonomy in Bio1101 peer-led team workshops. The Emerging Scholars Symposium. New York City College of Technology.

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. New York City College of Technology.

TEACHING

Teaching Awards and Recognition

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

2024 Received the ASM Carski Award for Undergraduate Education

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 Awarded 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 The New School

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, Mercy College, and CityTech

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 Highschool 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 New School undergraduate Leah Hughes
2019 The New School Student Research Award to New School 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 High School, & Simon Chen, The New School
2019 3rd Place Poster Award in Microbiology/Immunology at the 52nd MACUB to Leah Hughes, The New School
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 New School 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 The New School (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 the New School
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 the New School 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

Publications on Teaching (Peer-Reviewed Papers, eBooks, and Book Chapters)

$ denotes postdoc # denotes graduate student, and * denotes undergraduate students. My h-index is 25, i10 index is 35, and I have 2717 total citations. My ORCID ID: https://orcid.org/0000-0002-4049-0337

1. 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.0. 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
2. 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
3. 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.
4. **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
5. **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

6. **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
7. 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
8. 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
9. 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.
10. 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
11. 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.
12. 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.
13. **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.
14. 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.

Peer-Reviewed Editorials

1. 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
2. **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
3. **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

Teaching Papers/Editorials In Preparation

1. **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.

2. **First author with Team IGELs.** From GenEd to Skills for Life - How STEM educators can promote the development of "SAIL" skills in introductory courses. In preparation for JMBE.
3. **Smyth, D.S.,** and Goller C. (2023). Microbiomes for All Starts with Your Budget. In preparation for Frontiers in Microbiology.
4. Narayanan, M., Powers, K., Nagaraj, R., Liou-Mark, J., **Smyth, D. S** and Knopp-Kelly, M. (2023). Lessons learned from a randomized control study of PLTL in a minority serving institution. In preparation for CBE Life Sciences.
5. **Smyth, D.S.** and Reilly, E. (2023). Colleges as Ecosystems. In preparation for the Journal of Microbiology and Biology Education.

Invited Talks, Webinars, Panels & Oral Presentations on Teaching

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.** STEM Educators as Civic Educators. Faculty Learning Community of NIST Seminar Series. Jan 27th.

2022 **Smyth, D.S.** From waste to resource – Project-based learning and wastewater epidemiology in the COVID-19 pandemic. 4S/Esocite 2Do Congreso Conjunto. Cholula, Mexico. 7-10th December. Panel.

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.** 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.** and Conefrey, T. Educating for Democracy in Undergraduate STEM Programs. Roundtable. AACU Annual Meeting. Washington DC. Jan 19-Jan 22nd.

2021 **Smyth, D.S.** and Muth, T. Science for All: One Microbiome at a Time. NABT. Nov 12th. Atlanta, GA.

2021 **Smyth, D.S.,** and others. Tiny Earth Partner Instructors Workshop Community Outreach. Oct 1st. Panel. Online

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.** Using the SENCER approach in biology classes. Oct 18th. Invited talk at LaGuardia Community 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.** 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 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 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.** Teaching and Pedagogical Research. Queensborough Faculty Retreat. Jan 25th Panel.

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 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.** 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.

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.

2015 **Smyth, D.S**., and But, J. When There is No College Reading. SENCER Regional Conference. Oct 16th, 2015. New York City College of Technology, Brooklyn, NY. Oral Presentation.

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.** How the Toilet Changed the World. World Toilet Day. Nov 17th, 2015. Mercy College, Dobbs Ferry, NY. Oral Presentation.

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 **Smyth, D.S.** The READ initiative. CUNY Assessment Seminar, John Jay, CUNY, March. Oral Presentation.

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

Workshops

2025 **Smyth, D.S. Reilly E.** 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. The New School. March 30th. Online. Workshop

2021 **Smyth, D.S.** Experimenting while teaching. The New School. 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. The New School. 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 the New School. 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.

Conference Papers, Book Chapters, and Other Publications on Teaching

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.** and Yust A. Practicing and Simulating Social Distance. In Science Education and Civic Engagement: An International Journal. 2020 12(2):80-81.
3. **Banks, M., Smyth, D.S.** (2018). Pathogens and plastic: Sustainable Science at the New School. Available from https://tishmancenter.org/pathogens-and-plastic-sustainable-science-at-the-new-school/
4. **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.
5. 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.

Contributed Open Education Resources/Websites

1. http://www.covidcode.net
2. http://www.microbiomesforall.com
3. **Smyth, D.S.** Understanding Science. https://www.vaccine-science-education.org/videos-and-toolkits
    a. Four modules to promote understanding of science available on YouTube
4. **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
5. **Smyth, D.** (2020). Transforming your CUREs with SENCER. Cultivating Scientific Curiosity, QUBES Educational Resources. doi:10.25334/P11N-7X82
6. Joyner, J., **Smyth, D.,** Caplan, A., Muth, T. (2020). Microbiomes for All: The Research Experiences in Microbiomes Network. Cultivating Scientific Curiosity, QUBES Educational Resources.
7. **Smyth, D.** (2020). SENCERizing your CURE. Cultivating Scientific Curiosity, QUBES Educational Resources. doi:10.25334/RE12-ZK82
8. **Smyth, D.** (2018). Laboratory exercises on microbial growth, horizontal gene transfer, competition, and evolution. QUBES Educational Resources. doi:10.25334/Q4171F
9. **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

Poster Presentations on Teaching

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

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. The New School, 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 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 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**. Reading Effectively Across the Disciplines – Focus on Biology. The Teaching Professor Conference

Graduate Student and Postdoc Research Mentoring

1. Alexis Denn - A&M-SA - Master's in Biology - Dec 2024 - present
2. Sarah Freeman - A&M-SA - Master's in Biology - August 2024 - present
3. Robert Garcia - A&M-SA - Master's in Biology - Jan 2024 - present
4. Dennis Guillen Castro - A&M-SA - Master's in Biology - July 2023 - present
5. Blake Meche – A&M-SA - Master's in Biology - Jan 2023 - present
6. Gloria Rodriguez – A&M-SA - Master's in Biology - Sept 2022 - present
7. Lyndsy Stacy – A&M-SA - Master's in Biology - Sept 2022 - graduated - co-mentored with Dr Teufel
8. Ariel Robles – A&M-SA - Master's in Biology – Sept 2021 – present
9. Starla Thornhill – A&M-SA - Postdoctoral fellow – October 2021 – March 2022
10. Antun Skanata – The New School - Postdoctoral fellow (with John Dennehy) – Jan to July 2021
11. Fabrizio Spagnolo - The New School - Postdoctoral fellow (with John Dennehy) – June to Dec 2020
12. Marcus Banks – The New School - Master's in Design - 2019-2020

Internal and External Thesis Committee Membership

1. Rebecca Mcgehee - A&M-SA - Master's in Biology – Fall 2024 - present
2. MD Imran Hasan - A&M-SA - Master's in Biology – Spring 2024 - present
3. Infiniti Alvarez - A&M-SA - Master's in Biology – Spring 2024 - present
4. Julie Scott – A&M-SA - Master's in WaTR – Jan 2022 - graduated
5. Kimia Ahmadeyeh - A&M-SA - Master's in WaTR - Fall 2023 - present
6. Andre Felton - UTSA - PhD in Biology - Spring 2024 - present
7. Aron Valdez - Master's in Biology - Texas State University - Fall 2023 - graduated
8. Austin McBrady - Master's in Water Resources Science and Technology - A&M-SA - Fall 2023 - graduated
9. Jillin Sotomayor-Requena – Master's in WaTR – A&M-SA - Jan 2022 - graduated

Visiting Scholar and External Student Mentoring and Supervision

1. Jasper van Bemmelen - Ph.D. in Mathematics - TU Delft, The Netherlands - Spring 2022 - present
   a. spent two weeks at A&M-SA in Spring 2023
2. Prof. Luz Breton Deval - Visiting Scholar - UNAM - Fall 2023
   a. three months at A&M-SA in Fall 2023

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

1. Deborah Ihe - A&M-SA - Fall 2024 to present
2. Jessica Aguilar - A&M-SA - Summer 2024 to Fal
3. Elizabeth Almendarez - A&M-SA - Summer 2024 to present
4. Kandace Castellano - A&M-SA - Summer 2024 to Fall 2024
5. Dalia Guerro - A&M-SA - Summer 2024 to Fall 2024
6. Sophia Hernandez - A&M-SA - Summer 2024 to present
7. Yari Garanzuay - A&M-SA - Spring 2024 to Summer 2024

8. Jocelyn Gutierrez - A&M-SA - Spring 2024 to Summer 2024
9. Frank Handy - A&M-SA - Spring 2024 to Summer 2024
10. Abriana Ortega - A&M-SA - Spring 2024 to present
11. Sakshi Patel - A&M-SA - Spring 2024 to present
12. Juliann Sosa - A&M-SA - Spring 2024. Graduated.
13. Guadalupe Rivera Ballin - A&M-SA - Fall 2023. Graduated.
14. Joshua Rath - A&M-SA - Fall 2023 to Summer 2024. Graduated.
15. Lauren Esp - A&M-SA - Fall 2023 to present
16. Gabriel Perez - A&M-SA - Summer 2023 to Fall 2023. Graduated.
17. Robert Garcia - A&M-SA - Summer 2023 to Fall 2023. Current Master's student at A&M-SA
18. Zuleika Ceja - A&M-SA - Spring 2023 to present. Graduated, serving as a volunteer.
19. Mariah Mabanag - A&M-SA - Spring 2023.
20. Treife Le - A&M-SA - Spring 2023 to Fall 2023. Graduated.
21. Jasmin Woods - A&M-SA - Spring 2023 to Fall 2023. Graduated and employed as Laboratory Technician.
22. Julianna Sifuentes - A&M-SA - Spring 2023 to Summer 2023. Master's Student at UT Health.
23. Jonathan Castro - A&M-SA - Spring 2023 to Summer 2023. Master's Student at UT Health.
24. Alexandra Sanchez - A&M-SA - Spring 2023. Graduated.
25. Brianna Garcia - A&M-SA - Spring 2023 to Summer 2023. Graduated. Served as a volunteer.
26. Dennis Castro - A&M-SA - Spring 2023 to Summer 2023. Graduated. Current Master's student at A&M-SA
27. Jelanie Cisneros - A&M-SA - Fall 2022 to Summer 2023. Graduated. Accepted to PhD in Neuroscience.
28. Ruby Apolinar - A&M-SA - Fall 2022 to Spring 2023. Graduated.
29. Alessandra Garcia - A&M-SA - Fall 2022.
30. Melissa Luna - A&M-SA - Fall 2022.
31. Justin Sanford - A&M-SA - Fall 2022 to Summer 2024.
32. Michael Walik - A&M-SA - Fall 2022 to Fall 2023. Master's of Epidemiology at University of Washington.
33. Rebecca Mcgehee - A&M-SA - Spring 2022 to Summer 2024 - co-mentored with Dr. Chris Mares
34. Stephanie Davidson - A&M-SA - Spring 2022 to Fall 2023. Graduated and working at LabCorp
35. "Pantera" Perez - A&M-SA - Summer 2022.
36. Casandra Maldonado - A&M-SA - Spring 2022 to Spring 2023. Working at San Antonio Water System.
37. Destiny Guerra - A&M-SA - Spring 2022 to Summer 2023. Working at the Edwards Aquifer Alliance.
38. Gregory Kasriel - A&M-SA - Spring 2022.
39. Casey Reyes - A&M-SA - Spring 2022 to present
40. Molly Metz – The New School - 2018-2021. In Occupational Therapy Program.
41. Wes Thomason – The New School - 2020-2021. PhD student.
42. Kaitlyn Bushfield – The New School - 2020-2021. Technician in the Florian Krammer Lab. Now PhD student.
43. Ethyn Maki – The New School – 2019-2020. Completed Masters at the University of York.
44. Emma Letcher – The New School – 2019-2020.
45. Annabelle Adams-Beyea – The New School – 2019-2020.
46. Leah Hughes – The New School – 2020-2021.
47. Lauren Higa – The New School – 2018.

48. Simon Chen – The New School – 2019-2021.
49. Janelly Eralte – Mercy College – 2016-2018. Certified Nursing Assistant.
50. Natalia Tumidajski – Mercy College – 2016-2018. Senior Research Scientist at Exocel Bio Regenerative Med.
51. Natalie Vegas - Mercy College – 2016-2018. Working as a Veterinary Technologist.
52. Bien Porconi - Mercy College – 2016-2018. Working as a Clinical Laboratory Technologist.
53. Manuela Hoyos – CityTech 2012-201. Research Data Warehouse Programmer I
54. Ayesha Rasool – CityTech 2012-2014. Senior NGS Data Analyst, Regeneron
55. Kenny Tsang – CityTech 2012-2014. Scientist III - Bioinformatician at Boehringer Ingelheim
56. Fabiola Fontaine -CityTech 2012-2014. In Physician's Assistant Program
57. 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

Funded Education Research and Teaching Grants

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

At A&M-SA

Funded External Grants (As PI/co-PI)

2024 NSF HSI Implementation and Evaluation Project: Green Chemistry: Advancing Equity, Relevance, and Environmental Justice ($797,664) - co-PI. Subaward to NCSCE.

2022 NSF S-STEM Subaward with Walter Den from the University of Virginia ($15000) - Co-PI

Submitted External Grants (As PI/co-PI)

2025 NSF IUSE Collaborative Research: Building a CURE to Understand the Link between Genotypes and Phenotypes ($24000) - submitted Jan, pending

2024 NSF REU: INSPIRE: Increasing Student Participation in Research Experiences ($388716) - submitted Aug, pending

2024 NSF: Collaborative Research: Center: IUSE Center: Broadening Participation and Diversifying Who Generates and Uses Undergraduate STEM Education Research (BroaDER) ($536265) - submitted Nov, pending

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, pending

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 successful - resubmitting

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

at The New School

***Indicates grant still active in 2023**

Funded External Grants (As PI/co-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*

Submitted Education Grants at The New School

2020 Innovations in Education Fund “Getting STEAMD About Sustainability”. Not funded

2020 Innovations in Education Fund “The Emotional Intelligence Toolkit for Building New School Community Resilience”. Not funded

2019 ASM Conference Grant “Collaborative Teaching with Marvelous Microbes “. In Collaboration with LaGuardia Community College. Not funded

at Mercy College & CityTech

Funded External Grants (As PI/co-PI)

2018 HHMI Inclusive Excellence Award, Leadership Team Member, Adjunct Academy - $1 million. Composed the Adjunct Academy component. Served as Adjunct Academy Consultant

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

2015 National Center for Scientific and Civic Engagement SENCER Summer Institute Post Implementation Team Award

2014 National Center for Scientific and Civic Engagement SENCER Summer Institute Post Implementation Team Award

2013 Perkins Grant for Improvement of Microbiology Course - $16254.88

Funded Internal Grants (As PI/co-PI)

2017 Mercy Senate Micro Grant for Student Engagement, “Broadening participation in STEM through high-impact practices: A trio of trips”

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 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”

SERVICE

(underlined service indicates leadership role)

Departmental Service

At A&M-SA

1. FEC Tenure Track Rubric Development Task Force Chair
2. Member of Tenure Track FEC
3. Chair of the Promotion and Tenure Committee – Fall 2024
4. Natural Sciences Senate Representative Fall 2024 to present
    - Chair of the Workload Taskforce Committee
    - Chair of the Core Curriculum Committee
5. Chair of Search Committee for Analytical Chemist Fall 2024 to Spring 2025
6. Member of Search Committee for Post Award Coordinator Fall 2024-Spring 2025
7. Appointed Biology Program Coordinator - Summer 2024
8. Brought a team of faculty to the Tiny Earth Partner Instructor Summer Training in Madison Wisconsin, 2024
9. Represented the Biology Program at VIA San Antonio at the Witte Museum - April 2024
10. Helped with the Science Olympiad - 2024
11. Co-Chair of the Molecular/Developmental Professor Search Committee - Fall 2023
12. Member of the Promotion and Tenure Committee – Fall 2023 to Spring 2024
13. Member of the search committee for the Laboratory Manager - Summer 2023
14. Co-Chair of the Open Rank Professor in Community Health Committee - Spring 2023
15. Member of the Assistant Professor in Community Health Committee - Spring 2023
16. Serving on the Biology program review committee – 2022 to 2024
17. Chair of the Promotion and Tenure Committee – Fall 2022
18. Member of the Promotion and Tenure Committee – 2021 to present
19. Member of the search committee for an Admin Assistant - Summer/Fall 2022
20. Member of the Faculty Evaluation Committee - 2021 to present
21. Biology Assessment Coordinator – 2021 to Summer 2024
22. Helped with the Science Olympiad - 2022

23. 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 including compliance and ordering.
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 linkages 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. Developed a new undergraduate program in Biomedical Sciences - Submitted for consideration in Fall 2024
    a. Developed the degree plan
    b. Developed 6 new courses
2. Co-Chair of the Inaugural Council of Principal Investigators - Sept 2023 to present
3. Vice-Chair of the Institutional Biosafety Committee – August 2023 to present
4. Member of the Post Award Coordinator Search Committee - Summer to Fall 2023
5. Member of the 8-member Inaugural Council of Principal Investigators - Spring 2023 to Sept 2023
6. Member of the Water Resources Science and Technology Program Advisory Board - 2022 to present
7. Member of the Institutional Biosafety Committee – 2021 to present

8. Member of the Core Curriculum Committee – Represent Life Sciences, now Biology – 2021 to present
9. 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
    - Served throughout the pandemic
    - Helped develop protocols for reopening safely
    - Wrote a whitepaper on risks associated with reopening
    - Supported staff and students to tailor protocols for safe reopening
4. Joined the Pilot of Faculty Guild for The New School in 2019
5. Represented Eugene Lang College on the inaugural Budget Advisory Council - 2019-2021
    - Elected Co-Chair of the Council (represented the faculty - staff, and students had their co-chair).
    - 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 The New School.
    - 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 Physicians 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.
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. Elected to the Community Conservation Committee of SAWS in Jan 2025
2. Search Committee external member UTSA Microbiology Faculty Search in Fall 2024
3. External letter writer/reviewer for 1 faculty member's tenure and promotion in 2024
4. NSF Panel Reviewer 2024

5. Peer Review Board member of *InSight: A Journal of Scholarly Teaching* 2023
6. NSF Panel Reviewer 2023
7. Serve on the Institutional Biosafety Committee of Texas Biomedical Research Institute - 2023 to present
8. External letter writer/reviewer for 2 faculty members' tenure and promotion in 2022
9. Search Committee external member UTSA Microbiology Faculty Search in Spring 2023
10. Reviewed sessions for the 2023 AAAS Science for Humanity Conference
11. Judge and mentor for the SA Smart Challenge 2022
12. Serve on the Advisory Board for NSF Grant of Meredith Frey at Sarah Laurence from 2022 to present
13. Board Member of BioQuest 2022 to present
14. Continuing member of the IGELS Steering Committee (Led by Gordon Uno)
    - Co-team leader for Professional Development with Heather Rissler
15. Serving as a PULSE Ambassador since Spring 2021
16. Selected participant in the STEM Futures: Future Substance of STEM Education Project
17. Spring 2021 SENCER Assessment and QUBES Faculty Mentoring Network Mentor
18. BIOME 2020 MICRObiome Working group facilitator 2020-2021
19. *ad hoc* reviewer for NSF
20. Invited participant in 21st Century Professional Development in Undergraduate Life Sciences Education 2019 - One of 30 invited participants
21. Poster judge at NYC Regional SEA-Phages Symposium, SUNY Old Westbury, 2019
22. Abstract reviewer for SABER 2019
23. Consultant for "Bridging to STEM Excellence" project at the University of Richmond 2019-2020
24. Elected a PULSE fellow in 2019
25. Steering committee member for REMNet (RCN-UBE) at Brooklyn College, 2019-2020
26. External committee member for HHMI Inclusive Excellence Award to Mercy College, 2018-2020
27. External consultant for Peer-Led Team Learning Project at Mercy College, 2018-2020
28. Abstract reviewer for ABRCMS 2017 and SACNAS 2017
29. SENCER consultant for "Using Civic Engagement to Help Implement the Next Generation Science Standards 2016 and 2017. Rider University, NJ
30. External reviewer for the CUNY Research Scholars Program 2016
31. External reviewer for the Biomedical Informatics Internship course at CityTech
32. Served as a SENCER Senior Leadership Fellow. Mentoring Heather Pelzel, University of Wisconsin
33. Served as a PALM mentor to Carlos Goller 2019-2020
34. Poster Judge at ABRCMS 2015 - 2016
35. Poster Judge at MACUB 2015 - 2019
36. Postdoctoral representative for NYMC for Science Alliance at the New York Academy of Sciences 2007-2009
37. Judge for the Westchester Science and Engineering Fair and the NYC Science and Engineering Fair 2007-2008
38. An active member of ASM, BioQUEST, QUBES, AAAS, and NABT.

Journal Editing and Reviewing

1. Editor for JMBE Perspectives Dec 2024 to present

2. 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
3. Guest Editor for a research topic of Frontiers in Microbiology: “Insights in Systems Microbiology 2022/2023” in 2023 to 2024
4. Continuing Editor for BMC Infectious Diseases
5. Continuing Associate Editor for Science Education and Civic Engagement: An International Journal
6. 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
7. 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
8. Served as Associate Editor for PLOS ONE
    a. Selected as a Handling Editor for a special edition called “Microbiome Across Biological Systems”
9. Current Associate Editor for BMC Infectious Diseases

Organized/Co-Organized/Event Hosting

1. 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
2. Co-organized the National REMNet Meeting at TAMUSA Summer 2024 - 3-day microbiome workshop for faculty and graduate students.
3. 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
4. Organised 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.
5. Co-organized the SENCER Summer Institute 2023 – 4-day online conference
    a. Organized the Water Research and Education Track
6. 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.
7. Co-organized the “Intersections in Assessment” Conference funded through the National Science Foundation with Judy Koke. 2022. May-June. On Zoom.
8. Co-organized the SENCER Summer Institute 2022 – 4-day online conference
9. Facilitated the online poster sessions for the Tiny Earth Winter Symposium 2021
10. Co-organized the SENCER Summer Institute 2021 – 12-day online conference
11. Served on the Tiny Earth Summer Symposium Planning Committee 2021
12. Assisted with the organization of the MID SCI SENCER regional 2021
13. Assisted with the organization and poster reviewing at MACUB 2020
14. Assisted and helped organize the poster session at SABER 2020

15. Helped coordinate the Marvelous Microbes exhibit at the New School 2020. Curated by undergraduates Simon Chen and Molly Metz.
16. HHMI Adjunct Academy (2019). Co-organized the workshop on Classroom-Based Undergraduate Research Experiences and Project Based Learning with Madhavan Narayanan at Mercy College.
17. STEM, Humanities and Social Justice (2019). April 5th. SENCER Mid Atlantic Regional Meeting. The New School. NY. Co-organized with Katayoun Chamany
18. Illumina Library Prep Workshop Using the Nextera DNA Flex for Bacterial WGS. Host.
19. Innovation through Collaboration Symposium. Jan 18th, 2018. La Guardia Community College, Long Island, NY. Co-organized with Maria Entezari
20. The Mid-Atlantic and New England Pulse Regional Meeting at Mercy College. Oct 6th, 2017. Host.
21. Hosted regional CUREnet institute with Erin Dolan. Mercy College. Feb 16-17th. 2018. Host.
22. Co-organized Mercy College STEM Day 2017
23. 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.