Alexandra L. Bryson, PhD, D(ABMM)



Associate Professor of Pathology
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Education

2018 Mayo Clinic, Rochester, Minnesota Clinical Microbiology CPEP Fellowship, American Board of Medical Microbiology Certified

2016 University of Pennsylvania, Philadelphia, Pennsylvania Ph.D. in Microbiology, Virology, and Parasitology Howard Hughes Medicine into Graduate School Scholar

2010 Oxford University, St. Hugh's College, Oxford, United Kingdom, Competitive Study Abroad Research Fellowship

2010 Texas A&M University, College Station, Texas, Bachelor of Science in Genetics and Biochemistry, Honors: Cum laude

Board Certifications

2018 - present American Board of Medical Microbiology

Awards

2019 Infectious Disease Teacher of the Year: Chosen by VCU Infectious Disease Fellows

2013 National Science Foundation Graduate Research Fellowship Honorable Mention

2013 New England Journal of Medicine Infectious Diseases Editors' Choice: Top Stories of 2013 for "Rapid evolution of the human gut virome"

Recent Grants & Funding

2022 - 2027 CDC Grant: Pathogen Genomics Centers of Excellence; The purpose of this project is to adapt and optimize a novel genomic pathogen amplification and sequencing system, which was originally developed to efficiently and economically sequence SARS-CoV-2. Role: Co-Investigator Total:

Editorial Advisory Boards

2024 - 2026	Editorial Board for Journal of Antimicrobial Chemotherapy (JAC) – Antimicrobial Resistance
2023 - present	Editorial Board for the Journal of Clinical Microbiology

Professional Service (outside)

2026 - present	Member of the Anaerobe Working Group. Clinical and Laboratory Standards Institute (CLSI)
2024 - present	Co-Chair of Cefepime-Zidebactam Work Group. Clinical and Laboratory Standards Institute (CLSI)
2024 - 2026	American Society for Clinical Pathology Resident RISE Exam. Question writer
2019 - present	Clinical and Laboratory Standards Institute (CLSI international organization), Quality Control Working Group, Committee member

Recent Invited Presentations

2026 “Developing an Antimicrobial Susceptibility Testing Strategy for Multidrug Resistant Gram-Negative Rods “, ADLM Conference, Anaheim, CA.

2026 “Battle of the Brains”, ASM Microbe Conference, Washington D.C.

2026 “Hot Topics in Antimicrobial Susceptibility Testing: A Focus on Epidemiological Cutoff Values”, ASM NYC, NY.
2025 “Conundrums and Controversies in Clinical Microbiology: A Roundtable Discussion”, ASM Microbe Conference, Los Angeles, CA.

2025 “Battle of the Brains”, ASM Microbe Conference, Los Angeles, CA.

2025 “rpoB Sequencing Directly from MGIT Broth”, Clin Miro Open, Savannah, GA

2024 “Wound Cultures from Bench to Bedside”, ASM Microbe Conference, Atlanta, GA.

2024 “Battle of the Brains”, ASM Microbe Conference, Atlanta, GA.

2024 “What do you do when the breakpoints are broken?” South Central Association for Clinical Microbiology Conference, French Lick, IN.

2023 “Clinical Microbiology State of the Union 2023”, VCU Health, Department of Infectious Diseases Grand Rounds, Richmond, VA.

2023 “Clinical Impact of Culture Independent GI Diagnostics”, ASM Microbe Conference, Houston, TX.

2023 “Clinical Microbiology Journal Club: Live! UTI Diagnostics”, Moderator, ASM Microbe Conference, Houston, TX.

2023 “Updating Stenotrophomonas Breakpoints for Trimethoprim-sulfamethoxazole and Ceftazidime”. Co-Chair, Clinical and Laboratory Standards Institute Conference, St. Louis, MO.

Selected Publications

Doern CD, Whitman M, Doll M, Lavoie S, Friedel D, Bearman G, Kim J, Masters H, Roseff S, Willis J, Mercer R, Hill A, Feeser R, Dhindsa H, Petruzella F, Jackson A, Vitto M, Plauny J, **Bryson A**. Blood culture bottle shortage mitigation efforts: analysis of impact on ordering and patient impact. Antimicrob Steward Healthc Epidemiol. 2025 Jan 9;5(1):e6. doi: 10.1017/ash.2024.474. PMID: 39810856; PMCID: PMC11729487.

Bixby ML, Daley EC, Collins LB, Salay JM, **Bryson AL**, Hirsch EB. Skipped wells and scientific error during fosfomycin agar dilution and broth microdilution lead to inconsistent minimal inhibitory concentrations and may be cause for reevaluating testing methods for Klebsiella pneumoniae. Microbiol Spectr. 2024 Aug 6;12(8):e0420523. doi: 10.1128/spectrum.04205-23. Epub 2024 Jun 28. PMID: 38940588; PMCID: PMC11302225.

Pedersen L, Mikesell J, Marcaccini R, Atkinson C, Cooper K, Feldman M, Rittman B, Ching P, **Bryson A**, Doll M. Candida auris in the burn unit: a prolonged biphasic outbreak. Antimicrob Steward Healthc Epidemiol. 2024 May 27;4(1):e93. doi: 10.1017/ash.2024.74. PMID: 38807933; PMCID: PMC11131002.

Bryce Bobb, Tristan Jones, Bryce Hatfield, David Friedel, William Koch, Colin Thibodeau, Christopher Doern, **Alexandra L. Bryson**. Appendiceal Agony and Hepatic Havoc: Exploring Infection in the Immunocompromised. Accepted to the Journal of Clinical Microbiology 2024.

Nicole Winkelmann, Mark Mochel, Christopher Doern, Sara Lamb, Colin Thibodeau, Melissa Godwin, **Alexandra Bryson.** Treatment Resistant Rash in Cardiac Transplant Patient. Accepted to the Journal of Clinical Microbiology 2024.

Bryson AL, Bhalodi A, Liesman RM, Mathers AJ. Cefazolin as a predictor of urinary cephalosporin activity in indicated Enterobacterales. J Clin Microbiol. 2024 Apr 10;62(4):e0078821. doi: 10.1128/jcm.00788-21. Epub 2024 Mar 8. PMID: 38457194; PMCID: PMC11005412.

Pierce J, Sayeed S, Doern CD, **Bryson AL**. *Emergomyces pasteurianus* in Man Returning to the United States from Liberia and Review of the Literature. Emerg Infect Dis. 2023 Mar;29(3):635-639. doi: 10.3201/eid2903.221683. PMID: 36823688; PMCID: PMC9973675.

Vissichelli NC, Morales MK, Kolipakkam B, **Bryson A**, Sabo RT, Toor AA. Cell-free next-generation sequencing impacts diagnosis and antimicrobial therapy in immunocompromised hosts: A retrospective study. Transpl Infect Dis. 2023 Feb;25(1):e13954. doi: 10.1111/tid.13954. Epub 2023 Jan 11. PMID: 36632004.

Pierce J, Sayeed S, Doern CD, **Bryson AL**. Emergomyces pasteurianus in Man Returning to the United States from Liberia and Review of the Literature. Emerg Infect Dis. 2023 Mar;29(3):635-639. doi: 10.3201/eid2903.221683. PMID: 36823688; PMCID: PMC9973675

Vissichelli NC, Morales MK, Kolipakkam B, **Bryson A**, Sabo RT, Toor AA. Cell-free next-generation sequencing impacts diagnosis and antimicrobial therapy in immunocompromised hosts: A retrospective study. Transpl Infect Dis. 2023 Feb;25(1):e13954. doi: 10.1111/tid.13954. Epub 2023 Jan 11. PMID: 36632004.

Other Publications

Bryson A, Theel ES. Case of the Month: Powassan. November 2017. Pan American Society for Clinical Virology

Books and Book Chapters

Doern CD, **Bryson AL**. Pocket Guide to Clinical Microbiology. 5th ed. ASM Press; 2026. ISBN: 978-1-68367-422-1.

Doern CD, **Bryson AL**. 2022. Wound/Abscess and Soft Tissue Cultures. *Clinical Microbiology Procedures Handbook,* 4th edition. ASM Press – Two Textbook chapters