

Alexandra L. Bryson, Ph.D., D(ABMM)



Associate Professor of Pathology
Associate Director of Clinical Microbiology
Department 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"

Professional Organizations

2021 - present	American Society for Microbiology, Professional Development Sub Committee
2020 - 2022	American Society for Microbiology, Clinical Microbiology Virtual Journal Club Committee
2022 - present	American Society for Clinical Pathology
2011 - present	American Society for Microbiology Member

Service Activities

2024 - present	Editorial Board for JAC – Antimicrobial Resistance
2024 - present	Co-Chair of Cefepime-Zidebactam Work Group. Clinical and Laboratory Standards Institute (CLSI). International standards organization
2023 - present	Editorial Board for the Journal of Clinical Microbiology
2022 - present	American Society for Clinical Pathology Resident Question Bank. Question writer. National organization
2021 - 2023	Co-Chair of Stenotrophomonas Work Group. Clinical and Laboratory Standards Institute (CLSI). International standards organization
2019 - 2023	Regional Director for the Southeastern Association for Clinical Microbiology
2020 - 2022	Virginia COVID-19 Testing Capacity and Technology Committee, which is a statewide committee designed to evaluate the quality of COVID-19 diagnostic assays and establish testing recommendations and guidance for the state of Virginia
2020 - 2021	Health Workplace/return to Campus Committee, which provides advice and guidance on COVID-19 testing strategies for students and athletes at VCU, William and Mary, and other VA Universities
2019 - present	Clinical and Laboratory Standards Institute (CLSI international organization), Quality Control Working Group, Committee member

2019 - 2021	American Board of Medical Microbiology Board Exam Committee (national organization), Question reviewer
2019 - 2022	Virginia Commonwealth University Health System Executive Faculty Committee, Secretary
2018 - present	Virginia Commonwealth University Health System Antimicrobial Stewardship Program, Committee member
2018 - present	Virginia Commonwealth University Health System Infection Prevention and Control, Committee member
2018 - 2022	Virginia Commonwealth University Health System Lab Test Utilization Committee, Committee member

Grants & Contracts

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. Total Award Amount (including Indirect Costs): \$6,427,262

2014 - 2016 NIH Bacterial Pathogenesis T32 Training Grant Recipient

2011 - 2016 Howard Hughes Medical Institute Med-into-Grad Scholar

Presentations

2025 Talk: "rpoB Sequencing Directly from MGIT Broth, Invited Speaker, Clin Miro Open, Savannah, GA

2024 Talk: "Wound Cultures from Bench to Bedside", Alexandra Bryson and Kyle Rodino, Invited Speakers, ASM Microbe Conference, Atlanta, GA.

2024 Talk: "Battle of the Brains". Alexandra Bryson and Kyle Rodino, Invited Speakers, ASM Microbe Conference, Atlanta, GA.

2024 Talk: "What do you do when the breakpoints are broken?", Invited Speaker, South Central Association for Clinical Microbiology Conference, French Lick, Indiana. Regional Conference.

2023 Grand Rounds Talk: "Clinical Microbiology State of the Union 2023". Alexandra Bryson and Christopher Doern, VCU Health, Department of Infectious Diseases Grand Rounds, Richmond, VA.

2023 Talk: "Clinical Impact of Culture Independent GI Diagnostics", Invited Speaker, ASM Microbe Conference, Houston, TX. International Conference.

2023 Talk: "Clinical Microbiology Journal Club: Live! UTI Diagnostics", Moderator, ASM Microbe Conference, Houston, TX. International Conference.

2023 Talk: "Updating Stenotrophomonas Breakpoints for Trimethoprim-sulfamethoxazole and Ceftazidime". Alexandra Bryson and Elizabeth Hirsch, Invited Speaker and Co-Chair, Clinical and Laboratory Standards Institute Conference, St. Louis, MO. International Conference.

Recent 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

Book Chapters

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