Christopher D. Doern, MD, PhD



Director of Clinical Microbiology Associate Professor of Pathology Department of Pathology Virginia Commonwealth University

Education

Postdoctoral Education
Medical and Public Health Microbiology Fellowship
Washington University in St. Louis, School of Medicine, St. Louis, MO

Graduate Education
PhD, Microbiology and Immunology
Wake Forest University School of Medicine, Winston-Salem, NC

*Undergraduate Education*Wake Forest University, Winston-Salem, NC

Certification

2010 – present American Board of Medical Microbiology

Hospital Appointments

2018 – present	Director of Clinical Microbiology, VCU Medical Center, Richmond, VA
2016 – present	Consultant Director of Clinical Microbiology, Veterans Administration Hospital, Richmond, VA
2013 – 2017	Associate Director of Clinical Microbiology, VCU Medical Center, Richmond, VA
2010 – 2013	Director of Clinical Microbiology, Children's Medical Center of Dallas, Dallas, TX

Academic Appointment History

2018 – present	Affiliate appointment as Associate Professor of Pediatrics at Virginia Commonwealth University Medical Center on the Medical College of Virginia Campus, Richmond, VA
2018 – present	Associate Professor of Pathology at Virginia Commonwealth University Medical Center on the Medical College of Virginia Campus, Richmond, VA
2013 – 2018	Assistant Professor of Pathology at Virginia Commonwealth University Medical Center on the Medical College of Virginia Campus, Richmond, VA
2010 – 2013	Assistant Professor of Pathology with a joint appointment in Pediatrics at the University of Texas Southwestern Medical Center, Dallas, TX (Clinical Tenure Track)

Visiting Professorships

2021	PennState Health, Milton S. Hershey Medical Center, Hershey, PA
2012	Washington University School of Medicine, St. Louis, MO
2014	University of Pennsylvania, Children's Hospital of Philadelphia, Philadelphia, PA

VCU Service

Year(s)	Name of Committee	Institution/Organization
2022	Laboratory Utilization Committee – Co-chair	VCU Medical Center
2021	Sangeeta Sastry – Promotion and Tenure Committee	VCU Medical Center
2021	CAUTI Working Group	VCU Medical Center
2020	EPIC Microbiology Integration Committee Chair	VCU Medical Center
2020	Julie Reznicek – Promotion and Tenure Committee	VCU Medical Center
2020 – 2022	COVID-19 Task Force	VCU Medical Center
2017 – 2019	Co-Chair – Clinical Pathology Research Committee	VCU Medical Center Pathology
2018	Associate Director for Microbiology Position Search Committee	VCU Medical Center Pathology

Professional Organizations

American Society for Microbiology

Southwestern Association for Clinical Microbiology

Professional Service (current)

2020 – present Virginia COVID-19 Testing Committee, Co-chair; Virgini	
	Health and Hospital Association (VHHA)
2020 – present	Virginia Governor's COVID-19 Testing Advisory Council, Member

2020 – present	Virginia Governor's COVID-19 Testing Advisory Council Testing Technology Subcommittee, Co-chair
2020 -present	Virginia Governor's COVID-19 Testing Advisory Council Analytics and Reporting Subcommittee, Co-chair
2020 – present	Virginia Governor's COVID-19 Testing Advisory Council – Testing Capacity Subcommittee, Co-chair
2019 – present	Antibacterial Resistance Leadership Group (ARLG), Pediatric Working Group
2019 – present	Antibacterial Resistance Leadership Group (ARLG), Diagnostics Committee
2015 – present	American Board of Medical Microbiology Board, Member; American Society for Microbiology
2015 – present	CLSI M02-M07 Document revision committee, Recording Secretary; Clinical and Laboratory Standards Institute
2014 – present	CLSI M58 MALDI-TOF MS Working Group, Member; Clinical and Laboratory Standards Institute
2012 – present	Clinical Laboratory Practices Committee, Member; American Society for Microbiology
2011 – present	Clinical Chemistry Trainee Council Executive Board, Member; American Association of Clinical Chemistry

Recent Invited Presentations

2022	Introduction to Diagnostic Stewardship, Webinar ASM Webinar Series on Diagnostic Stewardship
2022	Controversial Topics In Clinical Microbiology Symposium New York City ASM Annual Meeting, New York City, NY

2021	Update on Blood Culture Contamination Symposium Magnolia Medical: National Sales Meeting Virtual
2021	Diagnostic Stewardship in Clinical Microbiology Symposium Next Generation Diagnostic Summit, Annual Meeting Virtual
2021	Diagnostic Clinical Cases, Expert Panel, Infectious Disease Society of America (IDSA) Annual Meeting (ID Week) Virtual
2021	Test Your Clinical Laboratory Smarts: Question of the Day Returns! - Part 1 and Part 2 Symposium, World Microbe Forum – ASM Annual Meeting Virtual
2021	Micro-management: Using Diagnostic Stewardship to Improve Pediatric Care, Symposium, Pediatric Academic Societies Annual Meeting Virtual
2020	Diagnostic Clinical Cases, Expert Panel; Infectious Disease Society of America (IDSA) Annual Meeting (ID Week) Virtual
2019	Battle of the Brains: Clinical Microbiology and ID Trivia Competition, Symposium; Microbe – ASM Annual Meeting, San Francisco, CA
2019	Moderator: Understanding Changes in Multiplex Testing Reimbursement: The Ship has sailed, how do we move forward? Symposium; Microbe – ASM Annual Meeting, San Francisco, CA
2019	Connecting Industry to the Clinical Laboratory for Improved Patient Care, Symposium; Microbe – ASM Annual Meeting, San Francisco, CA
2019	Phenotypic Antibiotic Susceptibility Testing: From Monte-Carlo to the Bedside, Symposium; Next Generation Diagnostics Summit, Washington, DC
2019	Diagnostic Clinical Cases, Expert Panel; Infectious Disease Societ of America (IDSA) Annual Meeting (ID Week), Washington, DC

Regional/Local

2023	New Year's Resolutions from Pathology: Update on COVID-19 testing, Blood Culture Diagnostics, and Laboratory Utilization, VCUHS Internal Medicine Grand Rounds
2022	Microbiology State of the Union 2022: Where we've been and where we're going, VCU Infectious Diseases, Grand Rounds, Richmond, VA
2022	Worldwide Testing Fiasco: The VCUHS Story of Diagnosing COVID-19 VCUHS Oral Pathology Grand Rounds, Richmond, VA
2022	Things we do, but shouldn't: Top 5 List of Useless Microbiology Practices and how we can do better Symposium 14th Annual Next Generation Summit, Washington, D.C.
2021	Update on Blood Culture Contamination Symposium Magnolia Medical: National Sales Meeting. Virtual
2021	Diagnostic Stewardship in Clinical Microbiology Symposium Next Generation Diagnostic Summit, Annual Meeting, Virtual
2021	Diagnostic Clinical Cases Expert Panel Infectious Disease Society of America (IDSA) Annual Meeting (ID Week), Virtual
2021	Test Your Clinical Laboratory Smarts: Question of the Day Returns! Part 1 Symposium World Microbe Forum – ASM Annual Meeting, Virtual
2021	Test Your Clinical Laboratory Smarts: Question of the Day Returns! Part 2 Symposium World Microbe Forum – ASM Annual Meeting, Virtual
2021	Micro-management: Using Diagnostic Stewardship to Improve Pediatric Care Symposium Pediatric Academic Societies Annual Meeting: Virtual

2020	COVID-19: What we learned: Supply Chain and Laboratory Services; Symposium, Central Virginia Healthcare Executive Group, Virtual Event
2020	Microbiology Update: COVID-19 Testing and Future Directions; Grand Rounds, VCU Infectious Diseases, Grand Rounds, Richmond, VA
2020	COVID-19 Testing at VCUHS; Grand Rounds, Community Memorial Hospital, South Hill, VA
2019	Diagnostic Stewardship: Because you can't do everything for everyone, all the time; Symposium, Southwestern Association for Clinical Microbiology, Oklahoma City, OK
2019	Diagnostic Stewardship: Because you can't do everything for everyone, all the time; Symposium, Southeastern Association for Clinical Microbiology, Myrtle Beach, SC

Recent Publications

Peer Reviewed Publications

Simner PJ, Bard JD, **Doern C**, Johnson JK, Westblade L, Yenokyan G, Patel R, Hanson KE; ARLG. REPORTing of Antimicrobial Resistance from Blood Cultures (REPORT-ABC), an ARLG Survey Summary: Resistance Marker Reporting Practices from Positive Blood Cultures. 2022. Clin Infect Dis. Online ahead of print.

Doern CD, Miller MB, Alby K, Bachman MA, Brecher SM, Casiano-Colon A, Couturier MR, Johnson JK, Kirby JE, McElvania E, Newton DW, Nolte FS, Pancholi P, McNult P, Dharmarha V, Dunbar S: ASM Clinical and Public Health Microbiology Committee and the ASM Corporate Council. Proceedings of the Clinical Microbiology Open 2018 and 2019 - a Discussion about Emerging Trends, Challenges, and the Future of Clinical Microbiology. 2022. 60(7).

Pierce J, Hill A, Godwin M, Dalton J, Stevens M, **Doern CD**, Bryson A. 28-year old with organism extracted from the eyelid. 2021. Clinical Infectious Diseases. Jun 1. 72(11).

Point-Counter Point – Should clinical microbiology laboratories report vancomycin MICs? 2021. Revolinski S, **Doern CD**. J Clin Microbiology. Mar 19. 59(4).

Sann KZ, Vissichelli NC, Bryson AL, **Doern CD**, Mochel MC, Bearman G, Sastry S. Diffuse skin nodules in an oyster farmer: Disseminated Mycobacterium marinum. 2021. Am J Med. Jan. 134(1)

Doll ME, Pryor R, Mackey D, **Doern CD**, Bryson A, Bailey P, Cooper K, Godbout E, Stevens MP, Bearman G. Utility of retesting for diagnosis of SARS-CoV-2/COVID-19 in hospitalized patients: Impact of the interval between tests. 2020. Infect Control Hosp Epideiol. July. 41(7)

Lau AF, Walchak RC, Miller HB, Slechta ES, Kamboj K, Riebe K, Robertson AE, Gilbreath JJ, Mitchell KF, Wallace MA, Bryson AL, Balada-Llasat JM, Bulman A, Buchan BW, Burnham CD, Butler-Wu S, Desai U, **Doern CD**, Hanson KE, Henderson CM, Kostrzewa M, Ledeboer NA, Maier T, Pancholi P, Schuetz AN, Shi G, Wengenack NL, Zhang SX, Zelazny AM, Frank KM. Multicenter Study Demonstrates Standardization Requirements for Mold Identification by MALDI-TOF MS. 2019. Front Microbiol. Sep 20. 10:2098

Bryson AL, Hill EM, **Doern CD**. Matrix-Assisted Laser Desorption/Ionization Time-of- Flight: The Revolution in Progress. Clin Lab Med. 2019. 39 (3): 391-404

Osei-Bonsu K, Masroor N, Cooper K, **Doern C**, Jefferson KK, Major Y, Adamson S, Thomas J, Lovern I, Albert H, Stevens MP, Archer G, Bearman G, Doll M. Alternative doffing strategies of personal protective equipment to prevent self-contamination in the health care setting. 2019. Am J Infect Control. 47(5). 534-539

Abbas S, Bernard S, Lee KB, Pakyz A, **Doern CD**, Doll M, Bearman G, Stevens MP. Rapid Respiratory Panel Testing: Impact of Active Antimicrobial Stewardship. 2019. Am J Infec Control. 47(2), 224-225

Gomez EJ, Roberts AL, Robinson DP, Alby K, Ledeboer NA, **Doern CD**, Lander DW, Bearman G, Sullivan KV. 2107. Impact of Organism Identification Method on Central Line- Associated Bloodstream Infection Designation. Infect Control Hosp Epidemiol. Aug; 38(8)

Doll M, Masroor N, Major Y, **Doern C**, Stevens M, Flemming M, Cooper K, Bearman

2017. Patient level risk factors for Carbapenem-Resistant Enterobacteriacee at a low prevalence tertiary care center in the United States. Int J of Infect Dis. December; 53

Nottingham M, Peterson G, **Doern C**, Doll M, Masroor N, Sanogo K, Stevens M, Bearman

2017. Ultraviolet-C light as a means of disinfecting anesthesia workstations. American Journal of Infection Control. April. In press

Campigotto A, Richardson SE, Sebert M, McElvania TeKippe E, Chakravarty A, **Doern CD**. 2016. Low Utility of the Pediatric Isolator Blood Culture System for the Detection of Fungemia in Children: A Ten Year Review. J Clin Microbiol. Sep;54(9):2284-7

Brown MK, Forbes BA, Stitley K, **Doern CD**. 2016. Defining the Clinical Significance of Alloscardovia omnicolens in the Urinary Tract. J Clin Microbiol. Jun;54(6):1552-6

Park JY, Dunbar KB, Mitui M, Arnold CA, Lam-Himlin DM, Valasek MA, Thung I, Okwara C. Coss E. Cryer B. **Doern CD**. 2016. Helicobacter pylori clarithromycin resistance and treatment failure are common in the United States. Digestive Diseases and Sciences. Aug;61(8):2373-80

Doern CD, Park JY, Gallegos M, Alspaugh D, Burnham CD. 2016. Investigation of Linezolid Resistance in Staphylococci and Enterococci. J Clin Microbiol. May;54(5):1289-94

Editorials, Reviews, Commentaries, Invited Published Papers in Peer Reviewed Journals

Doern CD. 2022. An infection from nature's ultimate fish tank. Clinical Microbiology Newsletter. 44(7).

Doern CD. 2022. Are you a pathogen? I don't know...Amoeby. 43(23).

Doern CD. 2022.Group A Streptococcus (S. pyogenes): The most interesting pathogen in the world. Clinical Microbiology Newsletter. Submitted.

Doern CD. 2021. If you want to stay alive, don't get dengue a second time. Clinical Microbiology Newsletter. 43(10).

Doern CD. 2021. Beta know your Haemophilus resistance mechanisms. Clinical Microbiology Newsletter. 43(15).

Doern CD. 2021. A bloody problem. Clinical Microbiology Newsletter. 43(1).

Doern CD. 2021. Review of AmpC Beta-Lactamases in the Enterobacterales – Answers to Common Questions

Doern CD. 2019. Fosfomycin Susceptibility Testing. Clinical Microbiology Newsletter. 42(4)

Doern CD. 2019. Implementation of Disk Diffusion Susceptibility Testing for Novel Antimicrobials. ASM Clinical Laboratory Practices Committee White Paper Kraft A, Wiles A, **Doern CD**. 2018. Acid-Fast Bacteria in Disguise: Mycobacterium avium Complex in Purulent Exudate; Ultrasound Correlation. AJSP: Reviews and Reports. 23: 194-196

Doern CD. 2018. The Slow March Toward Rapid, Phenotypic, Antimicrobial Susceptibility Testing: Are we there yet? J. Clin Microbiol. Feb 7. [Epub ahead of print]

Stultz JS, **Doern CD**, Godbout, E. 2016. Antibiotic Resistance in Pediatric Urinary Tract Infections Current Infectious Disease Reports. Dec;18(12):40

Doern CD. 2016. The Confounding Role of Antimicrobial Stewardship Programs in Understanding the Impact of Technology on Patient Care. Journal of Clinical Microbiology. 54(10), 2420-2423

Doern CD, Dunn JJ, McAdam AJ. 2016. Pediatric Clinical Microbiology: It's the Little Things. J Clin Microbiol. Jun;54(6):1412-3

Doern CD and Butler-Wu SM. 2016. Emerging and Future Applications of MALDI- TOF Mass Spectrometry in the Clinical Microbiology Laboratory: A Report of the Association for Molecular Pathology. Journal of Molecular Diagnostics. Nov;18(6):789-802

Published Abstracts or Proceedings

Direct-from-Urine AST: A comparison of MH and MacConkey Agars for Cefazolin, Nitrofurantoin, Trim-Sulfa, and Ciprofloxacin. M. Ribbon, J. Randolph, S. Hedrick, N. Taylor, L. Matthews, A. L. Bryson, **C. D. Doern**. ASM Microbe. San Francisco, CA, 2019

Evaluation of Microbiology Workflow without TLA: Bench Arrangement, Incubation Times, and Weekend Workflow. **C. D. Doern**, A. Ellis, K. Wieditz, H. Bateman, N. Taylor, A. L. Bryson. ASM Microbe. San Francisco, CA, 2019

Differentiating Non-Lactose Fermenting E. coli and Shigella spp. by XLD, Motility, and Lysine Decarboxylase Broth. N. Taylor, G. Weldearegay, E. Hill, C. Bender, **C. Doern**, A. Bryson. ASM Microbe. San Francisco, CA, 2019

Evaluation of Management Changes Associated with Direct Viral Respiratory Pathogen Panel Testing in Chronic Respiratory Diseases. Krones A, Vissichelli N, **Doern CD**, Orndahl C, Sima A, De La Cruz, O. Annual Chest Meeting. October 2018

Evaluating the Utility of Repeat Testing of Multiplex Respiratory Pathogen Panels from Nasopharyngeal Swabs: What is An Appropriate Cutoff? C. Salmon, C. Bender, **Doern CD.** 118th ASM Microbe Meeting. Atlanta, GA, 2018

Performance Evaluation of the Stomacher for Automated Grinding of Tissues for Bacterial and Fungal Culture. C. Muhumuza, A. Hill, **Doern CD**, R. Reed-Warren, S. Kannady, B. Forbes. 118th ASM Microbe Meeting. Atlanta, GA, 2018

Does the Antimicrobial Susceptibility Profile Change in Gram-Negative Bacteria Recovered from Patients Who Have Repeatedly Positive Blood Cultures? W. Lainhart, I. Shyu, C-A. D. Burnham, **Doern CD**. 118th ASM Microbe Meeting. Atlanta, GA, 2018

Books, Book Chapters & Monographs

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

Doern CD, Humphries RM, Van Belkum A. 2022. Synergy Testing: Broth Microdiliution and Broth Macrodilution Checkerboard Methods. Clinical Microbiology Procedures Handbook, 4th edition. ASM Press.

Doern CD. Classification of Medically Important Bacteria. 2023. Molecular Medical Microbiology. In press. Elsevier – Textbook chapter

McElvania E, **Doern CD**, Culbreath K. 2023. Automation and Laboratory Design. Manual of Clinical Microbiology 13th Edition. ASM Press. Pages 44-53. Edited by Carroll K, Pfaller MA, Landry ML, McAdam AJ, Patel R, Richter SS, Warnock DW. ASM Press. – Textbook chapter

Doern CD, Holfelder M. 2018. Automation and Laboratory Design. Manual of Clinical Microbiology 12th Edition. ASM Press. Pages 44-53. Edited by Carroll K, Pfaller MA, Landry ML, McAdam AJ, Patel R, Richter SS, Warnock DW. ASM Press. – Textbook chapter

Doern CD. 2018. The Pocket Guide to Clinical Microbiology: 4th Edition. ASM Press. Pending publication

Doern CD Revell P. 2017. The Dark Art of the Blood Culture Textbook: Chapter: Pediatric Blood Cultures. ASM Press. Pending publication.

Doern CD and Forbes BA. 2016. Fundamentals of Bacteriology. Tietz Textbook of Clinical Chemistry and Molecular Diagnostics, 6th edition. Chapter 74. Pending publication.

Doern CD, Jerris RC, Gonzalez MD. 2016. Matrix Assisted Laser Desorption Ionization Time-of-Flight Mass Spectrometry for the Clinical Laboratory. MALDITOF in Microbiology and Molecular Biology. Pages 9-31. Horizon Scientific Press and Caister Academic Press.

Lay Press Interviews or Publications

2021 – VCU News VCU Medical Center lab testing for new strain of COVID-19

- 2020 NBC12 VCU Health develops test for COVID-19
- 2020 CBS6 News VCU Health develops test for COVID-19
- 2020 ABC8 News VCU Health develop in-house COVID-19 test
- 2020 Newsleader VCU independently develops COVID-19 test
- 2020 The Daily Progress <u>UVA</u>, <u>VCU</u> on front line of virus testing expansion in <u>Virginia</u>, but lack of supplies a hurdle
- 2020 Virginia Business VCU Health develops COVID-19 test kit
- 2020 The Commonwealth Times <u>VCU Health administering in-house</u> independently developed COVID-19 test
- 2020 VCUHealth News VCU Health develops in-house test for COVID-19
- 2020 VCU Health News Video
- 2020 NBC12 Virginia Strong Video
- 2020 Virginia Mercury <u>In the race to develop coronavirus testing, Virginia</u> universities are stuck on hold