



Mary Hayden, MD

The James Lowenstine Professor
of Internal Medicine

Advancement of Medicine

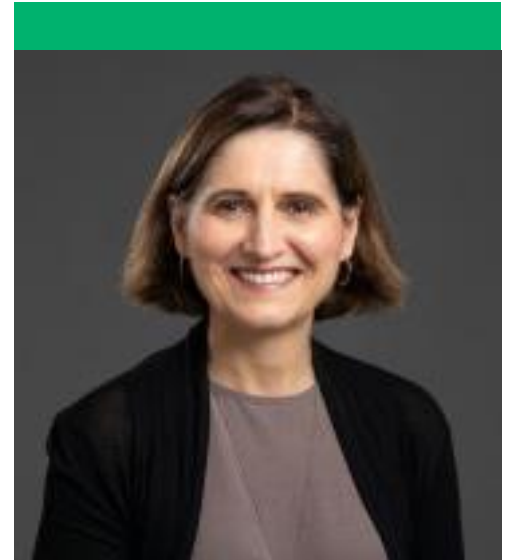
In 2024, I continued to serve as chief of the Division of Infectious Diseases in the Department of Internal Medicine and director of the Division of Clinical Microbiology in Rush Medical Laboratories. As division chief, I oversee and mentor 36 faculty members, including 21 who care for inpatients and outpatients at

Rush University Medical Center. **Your generous gift has allowed us to support directors for the Section of General Inpatient Infectious Diseases and the Section of Transplant and Oncologic Infectious Diseases.** These sections have worked to improve quality of care related to *Staphylococcus aureus* bacteremia, infective endocarditis and hepatitis B infection. In addition, proceeds from the endowment have been used to help launch a new quality initiative in February 2026 to manage Complex Outpatient Parenteral and Oral Antibiotic Therapy.

Research and Education

I continue to conduct research in the areas of health care-associated infections and antibiotic resistance. I have research funding from the Centers for Disease Control and Prevention, or CDC, and the National Institutes of Health, or NIH. I remain one of two principal investigators for the Regional Innovative Public Health Laboratory at Rush, or RIPHL. RIPHL provides advanced molecular diagnostic and surveillance capacity to the Chicago Department of Public Health, or CDPH. RIPHL is funded through a grant from CDC to CDPH. Over the past year, we have conducted surveillance and aided outbreak investigations for SARS-CoV-2, mpox, *Candida auris* and invasive Group A Streptococcal infection.

The generous endowment from the Lowenstine family has enabled me to mentor three early-stage physician-scientists. **Sarah Sansom, DO**, the most advanced of the three, was recently awarded a KL2 Mentored Career Development Award from the NIH.





I published nine peer-reviewed publications 2025, including a paper in the journal *Nature* on which I am senior author and a paper in *JAMA* on which I am co-author. **The support of this endowment was instrumental in these successes.**

Honors and Awards

I received the Research Mentor of the Year Award from Rush University.

Academic Service

- I served as a member of the World Health Organization Panel on Pandemic Preparedness, Rapid Antigen Detection for Pathogen X.
- I continue to serve on the Diagnostic Stewardship Committee of the Society for Healthcare Epidemiology of America.
- I continue to serve as a member of the Scientific Advisory Committee for the American Lung Association.
- I serve on the Quality Assurance Committee, Rush Medical Laboratories.

Speaking Engagements

- I was an invited speak at the Japanese Society for Infection Control and Prevention, Yokohama, Japan, and was a visiting professor at Science Tokyo and Kyorin University, Tokyo.
- I was an invited symposium speaker at the inaugural Interdisciplinary Meeting on Antimicrobial Resistance and Innovation, sponsored jointly by the American Society for Microbiology and the Infectious Diseases Society of America.
- I was a senior author on five abstract presentations at IDWeek 2025, Atlanta, Georgia, and at SHEA Spring, Champions Gate, Florida. IDWeek and SHEA Spring are the premier U.S. scientific conferences for infectious diseases and infection prevention, respectively.

Publication Highlights — Abbreviated

- **Hayden MK**, Sansom SE, Snitkin ES. Genome sequencing for prevention of healthcare-associated infections: surveillance, detection and response. *Nature Reviews Microbiology*, ePub ahead of print November 10, 2025.

- Barbian HJ, Lie L, Kittner A, Harrington A, Carson J, Frias M, Slade DH, Kim DY, Black S, Parada JP, **Hayden MK**. *Candida auris* outbreak response and epidemiologic response in a burn intensive care unit, Illinois, USA, 2021-2023. *Emerging Infectious Diseases* 2025 Mar; 31(3):438-447. PMID:40023787.
- Proctor DM, Sansom SE, Deming C, Conlan S, Blaustein RA, Atkins TK, NISC Comparative Sequencing Program, Dangana T, Fukuda C, Thotapalli L, Kong HH, Lin MY, **Hayden MK***, Segre JA*. Clonal *Candida auris* and ESKAPE pathogens on the skin of residents of nursing homes. *Nature* 2025 Mar;639(8056):1016-1023. PMID: 40011766. *These authors contributed equally.
- Bobrovska S, Newcomer E, Gottlieb M, McSorley VE, Kittner A, **Hayden MK**, Green S, Barbian HJ. Hospital air sampling enables surveillance of respiratory virus infections and genomes. *Science of the Total Environment*, 2025 May 15;977:179346.
- Poretzky R, Sanchez Gonzalez D, Horton A, Schoeny M, Lin C-Y, Lamin Jarju M, Secreto M, Chau C, Gough E, Newcomer E, Chaudhary A, Duffner L, Undevia N, Coulliette-Salmond A, Lyons AK, Whitehill F, **Hayden MK**, Green SJ, Lin MY. Establishing a practical approach to sewer monitoring for antimicrobial resistance genes and organisms at healthcare facilities. medRxiv doi: <https://doi.org/10.1101/2025.03.16.25324079>. Preprint. *J Infect Dis*, in press.
- Woodworth M, Babiker A, Prakash-Asrani R, Mehta C, Steed D, Ashley A, Koundakjian D, Acharya A, Grooms L, Bower D, Suchindran D, Trehan T, Halpin A, Walter MS, Reddy S, Samore M, Roghmann M-C, **Hayden MK**, Van Riel J, Burd EM, Lohsen S, Satola S, Fridkin S. Microbiota transplantation in long-term care – the Sentinel REACT Nonrandomized clinical trial. *JAMA Network Open*, 2025 Jul 1;8(&):e2522740. PMID: pending.
- Kim JJ, Hernandez Guarin LN, Contreras J, **Hayden MK**, Won SY. A data-driven financial justification for an outpatient infectious diseases pharmacist. *ASHE* 2025, 5(1):e155. doi: 10.1017/ash.2025.10051. eCollection 2025. PMID: 40666137.
- Barbian HJ, Walblay KA, Kittner A, Zelinski C, Newcome E, Adil H, Green SJ, Valley A, Kim DY, Black SR, **Hayden MK**. Transmission patterns of *Candida auris* among regional healthcare facilities revealed by genomic epidemiology and patient transfer data. *Microbial Genomics* 2025 Sep; 11(9), ePub ahead of print Sept 9. 2025.



- Sansom SE, King M, Froilan MC, Lucky CW, Thotapalli L, Rusie LK, Medernach R, Cochran RL, **Hayden MK**. Mixed-methods assessment of barriers to *Candidozyma auris* prevention among frontline healthcare providers in long-term acute care hospitals. *Infection Control and Hospital Epidemiology*, Nov 18, 2025 ePub ahead of print.
- Gohil SK, Septimus E, Kleinman K, Varma N, Sands KE, Avery TR, Slijivo MA, Rahm R, Roemer K, Cooper WS, McLean LE, Nickolay NG, Poland RE, Wenstein RA, Fakhry SM, Guy J, Moody J, Coady MH, Smith KN, Beador B, Froman A, Eibensteiner K, **Hayden MK**, Kubiak DW, Burks C, Burgess LH, Calderwood MS, Perlin JB, Platt R, Huang SS. *JAMA Surgery* 2025; 160:733-43.
- Sundermann AJ, Rosa R, Harris PNA, Snitkin E, Jafaid W, Moore NM, **Hayden MK**, Allen K, Rodino K, Peacock SJ, Abbo, LM, Harrison LH. Pathogen genomics in healthcare: Overcoming barriers to proactive surveillance. *Antimicrob Agents Chemother* 2025 69(1):e0147924. doi: 10.1128/aac.01479-24. PMID: 39636107

The Year Ahead: 2026 and Beyond

I plan to prioritize completing ongoing projects that are aimed at reducing health care-associated infections, including publication of manuscripts. I plan to apply for new federal funding in this area.

With Gratitude

I would like to thank the Lowenstine family for their generosity in supporting the work described here. I am most grateful!