

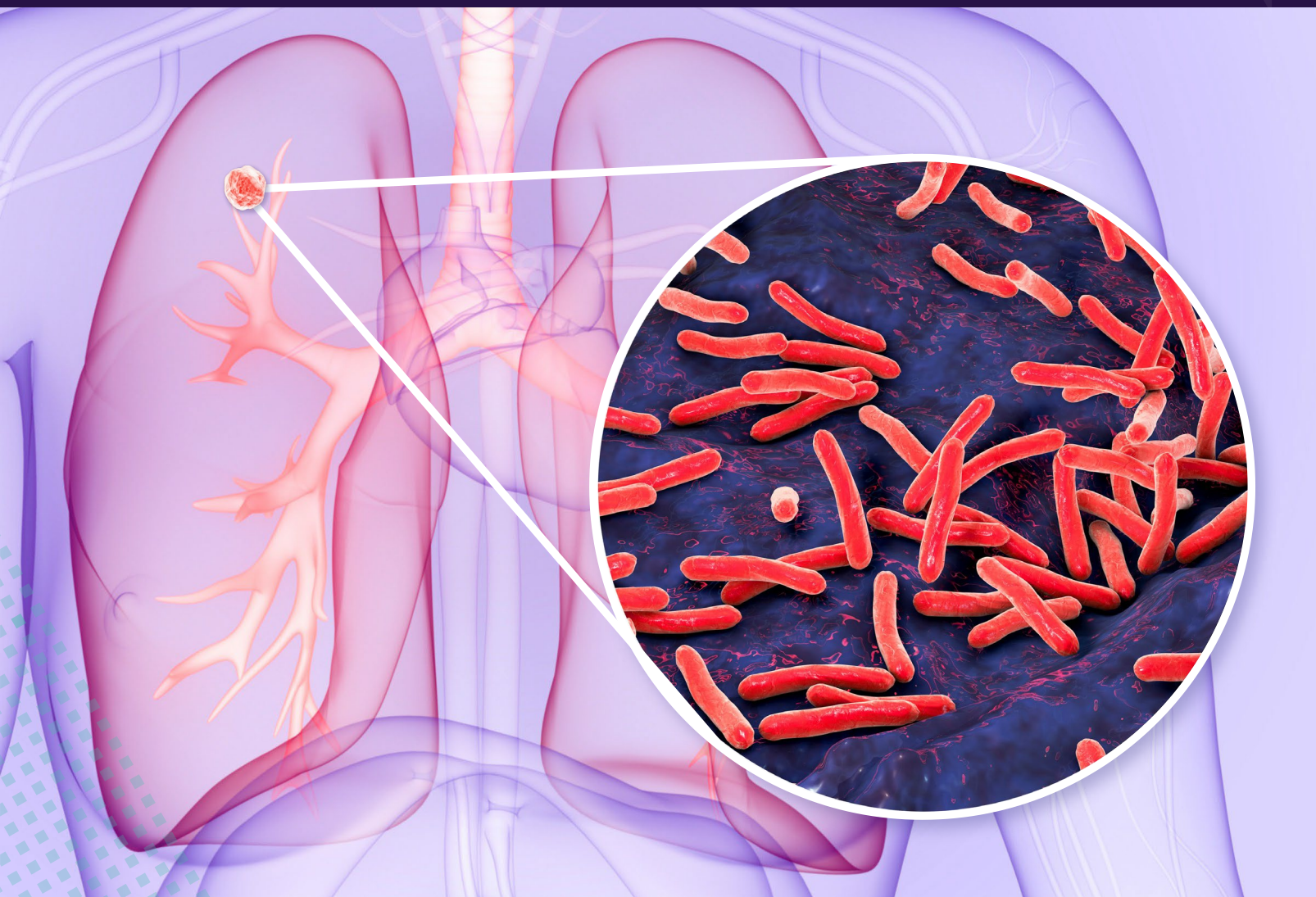
61ST ANNUAL

Denver

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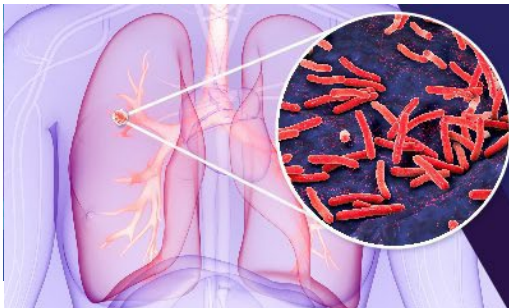
(Hybrid Event)



APRIL 2-4, 2025



National Jewish
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61ST ANNUAL

Denver TB Course

(Hybrid Event)

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61st Annual Denver TB Course

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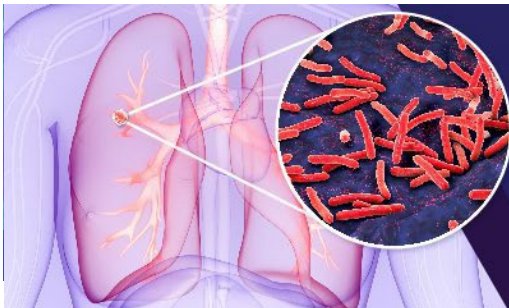
17.25 CME/CNE

Day 1 - Wednesday, April 2 (3.5 CME/CNE)

1:30–2 p.m. MDT	Registration	
2–2:10 p.m. MDT	Welcome	Michelle Haas, MD
2:10–2:40 p.m. MDT	History of National Jewish Health & TB	Jared Eddy, MD
2:40–3:25 p.m. MDT	Epidemiology	Amy Beeson, MD
3:25–4:10 p.m. MDT	Immunopathogenesis	Edward Chan, MD
4:10–4:30 p.m. MDT	Break	
4:30–6 p.m. MDT	Transmission of M. Tuberculosis and Infection Control Workshop	David Griffith, MD Jared Eddy, MD

Day 2 - Thursday, April 3 (6.5 CME/CNE)

7:30–8 a.m. MDT	Breakfast	
8–8:30 a.m. MDT	Challenging Clinical Scenarios	Hermione Hurley, MD
8:30–9:20 a.m. MDT	Diagnosis of LTBI: Tuberculin Skin Test & IGRA	Michelle Haas, MD
9:20–10:10 a.m. MDT	Treatment of LTBI/BCG Vaccination	Stephanie Wienkers, PharmD
10:10–10:30 a.m. MDT	Break	
10:30–11:20 a.m. MDT	Laboratory Services	Reeti Khare, PhD
11:20 a.m.–12:05 p.m. MDT	CXR Interpretation	Tilman Koelsch, MD



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12:05–1:10 p.m. MDT	Lunch	
1:10–2 p.m. MDT	Treatment of TB	Michelle Haas, MD
2–2:50 p.m. MDT	Drug Side Effects/Toxicity	David Griffith, MD
2:50–3:05 p.m. MDT	Break	
3:05–4:05 p.m. MDT	Michael D. Iseman Lectureship	Adithya Cattamanchi, MD
4:05–5:15 p.m. MDT	<i>Optional Lab Tour</i>	

Day 3 - Friday, April 4 (7.25 CME/CNE)

7:30–8 a.m. MDT	Breakfast	
8–9 a.m. MDT	Management of Nontuberculous Mycobacterial Infections	Shannon Kasperbauer, MD
9–9:45 a.m. MDT	TB and HIV Co-Infection	Michelle Haas, MD
9:45–10 a.m. MDT	Break	
10–10:50 a.m. MDT	Extra-Pulmonary TB	Shannon Kasperbauer, MD
10:50–11:50 a.m. MDT	Pediatric Tuberculosis	Richard Broadhurst, MD
11:50 a.m.–1:05 p.m. MDT	Lunch <i>Optional Lab Tour</i>	
1:05–2 p.m. MDT	Management of MDR-TB	Charles Daley, MD
2–3:45 p.m. MDT	Contact Investigation/Public Health Workshop	Robert Belknap, MD; Amy Beeson, MD Ana Araiza; Karen Castillo
3:45–4 p.m. MDT	Break	
4–4:45 p.m. MDT	Ask the Experts	Denver TB Course Faculty
4:45 p.m. MDT	Closing Comments	

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Wi-Fi

Turn on your Wi-Fi and look for network **NJH-Guest**. You'll see a pop-up window and will need to enter your email address.

Presentation Slides

During the conference and for 2 weeks after, the presentation slides will be available online. The slides can be downloaded but may not be edited, printed or distributed.

www.njhealth.org/TB2025slides

Polling

Some presentations will include polling using PollEverywhere. To ensure you can participate, please follow the instructions below:

1. Scan this QR code on your mobile device:



OR

Go to this website from your computer or mobile device:

<https://pollev.com/professionaleducationnationaljewishhealth910>

2. You have now joined. You do not need to do anything else until we begin polling.

3. When we ask a polling question, the poll will appear on your screen and you will be able to submit your response.

Credit Claiming

In order to receive your certificate at the end of the conference, you must complete the final conference evaluation to attest to which lectures you attended. The evaluation will be available to complete at the end of the conference at the link below.

Evaluation link: <https://redcap.link/61stTBeval>

After completing the final conference evaluation, you will be prompted to download your certificate. Credit will be awarded based on participation.

Registered nurses seeking nursing contact hours must attend an entire conference segment (Wednesday evening, Thursday or Friday) to receive contact hours. Nursing contact hours will be prorated based on the number of segments attended.

Contact Us

If you have questions throughout the conference, please visit the Registration Desk or call the on-site contacts:

Meghan Brenner – 303.249.8096
Bryce Chitanavong – 785.430.0165
Laniecia Demmer – 720.232.6174

Questions after the conference can be directed to proed@njhealth.org or 303.398.1000.



Accreditation Statement

National Jewish Health is accredited by the Accreditation Council for Continuing Medical Education (ACCME) to provide continuing medical education for physicians.

Designation Statement

National Jewish Health designates this live activity for a maximum of 17.25 *AMA PRA Category 1 Credits™*. Physicians should claim only the credit commensurate with the extent of their participation in the activity.

Nursing Continuing Education Accreditation Statement

Provider approved by the California Board of Registered Nursing, Provider Number 12724, for 17.25 contact hours.

Participant attendance throughout an entire conference segment (Wednesday evening, Thursday, or Friday) is required to receive contact hours. Nursing contact hours will be prorated based on the number of segments attended.

Disclosure of Financial Relationships for Individuals in Control of Content

In accordance with the Accreditation Council for Continuing Medical Education (ACCME), National Jewish Health requires that all program faculty, content developers, reviewers, and others in a position to control the content of this activity disclose to learners the presence or absence of any relevant financial relationships with an ACCME-defined ineligible company within the preceding 24 months of the activity. The ACCME defines an “ineligible company” as one whose primary business is producing, marketing, selling, re-selling, or distributing healthcare products used by or on patients.

Our goal is to ensure that there is no compromise in the ethical relationship that exists between those in a position to control the content of the activity and those participating in the activity and their respective professional duties. All accredited education activities offered by National Jewish Health are reviewed to ensure a balanced and evidence-based presentation.

All relevant financial relationships among individuals in a position to control the content of this activity have been identified and mitigated according to the Standards of Integrity and Independence in Accredited Continuing Education.

61st Annual Denver TB Course

April 2-4, 2025 | Denver, CO

Program Co-Chairs

Charles Daley, MD

Chief and Professor of Medicine
Division of Mycobacterial and Respiratory Infections
National Jewish Health

Michelle Haas, MD

Associate Professor of Medicine
Division of Mycobacterial and Respiratory Infections
National Jewish Health

Educational Program Faculty Presenters

Ana Araiza

Disease Intervention Specialist
Denver Health

Jared Eddy, MD, MPhil, MSc

Assistant Professor of Medicine
Division of Mycobacterial and Respiratory Infections National
Jewish Health

Amy Beeson, MD

Assistant Professor
University of Colorado School of Medicine

David Griffith, MD

Professor of Medicine
Division of Mycobacterial and Respiratory Infections
National Jewish Health

Robert (Bob) Belknap, MD

Executive Director, Public Health Institute at Denver Health
Associate Professor of Medicine
Division of Infectious Disease
Denver Health
University of Colorado

Michelle Haas, MD (Program Co-Chair)

Associate Professor of Medicine
Division of Mycobacterial and Respiratory Infections
National Jewish Health

Richard (Rob) Broadhurst, MD, MPH

Assistant Professor of Internal Medicine and Pediatrics
University of Colorado School of Medicine
Denver Tuberculosis Clinic

Hermione Hurley, MBChB

Associate Professor
Division of Infectious Disease
University of Colorado

Karen Castillo

Denver Health

Shannon Kasperbauer, MD

Associate Professor of Medicine
Division of Mycobacterial and Respiratory Infections
National Jewish Health

Adithya Cattamanchi, MD

Professor of Medicine, Public Health and Chief
Division of Pulmonary Diseases and Critical Care Medicine
University of California Irvine

Reeti Khare, PhD

Director, Infectious Disease Laboratory
Associate Professor
Advanced Diagnostic Laboratories
National Jewish Health

Edward Chan, MD

Staff Physician
National Jewish Health
Pulmonologist, Rocky Mountain Regional VA Medical Center

Tilman Koelsch, MD

Clinical Associate Professor
New York University

Charles Daley, MD (Program Co-Chair)

Chief and Professor of Medicine
Division of Mycobacterial and Respiratory Infections
National Jewish Health

Stephanie Wienkers, PharmD, BCACP

Ambulatory Clinical Pharmacist
Denver Health

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April 2-4, 2025, | Denver, CO

Faculty Presenter Disclosures

Ana Araiza has no relevant financial relationships to disclose.

Amy Beeson, MD has no relevant financial relationships to disclose.

Robert Belknap, MD has no relevant financial relationships to disclose.

Richard Broadhurst, MD has no relevant financial relationships to disclose.

Karen Castillo has no relevant financial relationships to disclose.

Adithya Cattamanchi, MD has no relevant financial relationships to disclose.

Edward Chan, MD has no relevant financial relationships to disclose.

Charles Daley, MD declares the following relevant financial relationships:

Advisory Board: Insmmed, AN2, Hyfe, MannKind, Monoghan, Nob Hill, Paratek, Shionogi, Spero

Consultant: Insmmed, AN2

Investigator: Insmmed, AN2, MannKind, Paratek, Juvabis, Bugworks

Data Monitoring Committee: Otsuka

Stock Options: Nob Hill

Jared Eddy, MD, MPhil, MSc has no relevant financial relationships to disclose.

David Griffith, MD declares the following relevant financial relationships:

Advisory Board: AN2, Insmmed, Paratek

Investigator: Insmmed, Paratek

Consultant: AN2, Insmmed, Paratek

Michelle Haas, MD has no relevant financial relationships to disclose.

Hermione Hurley, MBChB has no relevant financial relationships to disclose.

Shannon Kasperbauer, MD declares the following relevant financial relationships:

Advisory Board: AN2, Insmmed, Zambon

Investigator: Insmmed

Consultant: Insmmed

Reeti Khare, PhD declares the following financial relationships:

Investigator: Illumina

Tilman Koelsch, MD has no relevant financial relationships to disclose.

Stephanie Wienkers, PharmD, BCACP has no relevant financial relationships to disclose.

All relevant financial relationships among individuals in a position to control the content of this activity have been identified and mitigated according to the Standards of Integrity and Independence in Accredited Continuing Education.

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Planner Disclosures

Charles Daley, MD declares the following relevant financial relationships:

Advisory Board: Insmmed, AN2, Hyfe, MannKind, Monaghan, Nob Hill, Paratek, Shionogi, Spero

Consultant: Insmmed, AN2

Investigator: Insmmed, AN2, MannKind, Paratek, Juvabis, Bugworks

Data Monitoring Committee: Otsuka

Stock Options: Nob Hill

Michelle Haas, MD has no relevant financial relationships to disclose.

Meghan Brenner, MA has no relevant financial relationships to disclose.

Bryce Chitanavong, MBA has no relevant financial relationships to disclose.

Laniecia Demmer has no relevant financial relationships to disclose.

Andrea Harshman, MHA, CHCP, CMP-HC has no relevant financial relationships to disclose.

Reviewer Disclosures

Edward Chan, MD has no relevant financial relationships to disclose.

Michelle Haas, MD has no relevant financial relationships to disclose.

Sherstin T. Lommatzsch, MD has no relevant financial relationships to disclose.

Ann Mullen, RN, CNS, CDE has no relevant financial relationships to disclose.

Zulma Yunt, MD discloses the following relevant financial relationships:

Speaker: Boehringer Ingelheim

All relevant financial relationships among individuals in a position to control the content of this activity have been identified and mitigated according to the Standards of Integrity and Independence in Accredited Continuing Education.

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Faculty Biographies

Amy Beeson, MD attended the University of Colorado School of Medicine and completed a combined residency in Internal Medicine and Pediatrics in Colorado. Prior to residency, she was an intern with the World Health Organization's Stop TB department. She worked for the nonprofit organization Partners in Health in Lima, Peru, for one year, and was a Doris Duke International Clinical Research Fellow through Yale University in Tugela Ferry, South Africa, where she trained and supported community health workers providing community-based screening and linkage to care for HIV, TB, and non-communicable diseases.

After residency, Dr. Beeson joined CDC's Epidemic Intelligence Service, a two-year post-doctoral training program in epidemiology. She was assigned to the Division of Vector-Borne Diseases, Bacterial Diseases Branch in Fort Collins, CO, where her work focused on plague, tularemia, Lyme disease, soft tick relapsing fever, and *Bartonella quintana*, with activities including disease investigation, epidemiologic analyses, and on-call consultation for U.S. states and territories. During a deployment to CDC's 2022 Multi-National Mpox Response, she co-led the clinical guidance team. She led the development of initial guidelines for pediatric mpox treatment and prevention and provided consultation for many public health jurisdictions as they experienced their first mpox cases. In 2023, she deployed to Asunción, Paraguay, as part of a two-person CDC delegation to provide technical assistance during a large outbreak of chikungunya virus disease.

Since residency, Dr. Beeson has maintained clinical work at Denver Health, working part-time in the urgent care and primary care clinics and precepting medical students and Med-Peds residents. Since 2023, she has also worked in the TB Clinic at Denver Health, and in November of 2024, she became the medical director of the TB Clinic. In her work with the Public Health Institute at Denver Health, she has also provided Chief Medical Officer (CMO) consulting services to Jefferson County Public Health since April of 2024.

Robert (Bob) Belknap, MD is the Executive Director of the Public Health Institute at Denver Health and an Infectious Diseases physician. He has worked in the Tuberculosis (TB) Clinic at Denver Health since 2003 and was the Medical Director from 2013-2021. He previously chaired the Department of Health and Human Services Advisory Council for the Elimination of Tuberculosis (ACET) and served as president of the U.S. National Tuberculosis Coalition of America (NTCA) and the National Society for TB Clinicians (NSTC). He is a Principal Investigator for CDC's Tuberculosis Trials Consortium and Tuberculosis Epidemiologic Studies Consortium.

Richard Broadhurst, MD MPH is an internist and pediatrician at Denver Health and cares for adults and children with tuberculosis at the Denver Metro TB Clinic. His research interests are in implementation science and public health practice, and he is a part of the Tuberculosis Epidemiologic Studies Consortium through the CDC.

Adithya Cattamanchi, MD is a Professor of Medicine and Public Health and Chief of the Division of Pulmonary Diseases and Critical Care Medicine at the University of California Irvine. His research focuses on the development and evaluation of tuberculosis diagnostics and the implementation of evidence-based care for tuberculosis in high burden countries. He is a principal investigator of multiple NIH-

funded studies, including a multi-country platform study to evaluate novel tuberculosis screening, diagnostic and drug resistance tests.

Ed Chan, MD was born in Burma and emigrated to Colorado. After his medical training in NYC, he served in the USAF before completing his pulmonary fellowship in Denver, CO. His clinical and research interests are in mycobacterial diseases.

Charles L. Daley, MD (Program Co-Chair) is Chief of the Division of Mycobacterial and Respiratory Infections at National Jewish Health (NJH) and Professor of Medicine at NJH, the University of Colorado School of Medicine, and Icahn School of Medicine at Mount Sinai. Dr. Daley has served on and chaired expert panels for the World Health Organization (WHO), Centers for Disease Control and Prevention (CDC), Infectious Diseases Society of America and American Thoracic Society. He has participated on multiple guideline panels for these organizations including guidelines that address diagnosis, treatment (drug-susceptible and drug resistant) and prevention of TB. He recently Chaired the revision of the multi-society sponsored NTM Treatment Guideline. For his work with MDR-TB he was awarded the World Lung Health Award by the American Thoracic Society. He was previously Associate Editor for the American Journal of Respiratory and Critical Care Medicine and The European Respiratory Journal. His academic interests include TB global health policy and clinical and translational research related to TB, NTM infections and bronchiectasis.

Jared J. Eddy, MD, MPhil, MSc is Assistant Professor of Medicine in the Division of Mycobacterial and Respiratory Infections at National Jewish Health (NJH), where he primarily treats patients with mycobacterial disease but also other infections. He is also Director of the Antibiotic Stewardship Program and Infection Prevention Officer at NJH and director of infection prevention and control at St. Joseph Hospital, Denver. He received his primary medical degree at Johns Hopkins University School of Medicine. He trained in internal medicine and infectious diseases at Boston Medical Center where he also completed a research fellowship focusing on various aspects of tuberculosis including drug-resistant tuberculosis in Massachusetts, the influence of latent tuberculosis infection on HIV infection, and airborne isolation for infectious tuberculosis. He also holds an MPhil in Classics from the University of Cambridge, UK, where he studied tuberculosis in ancient Rome, as well as an MSc in Epidemiology from the Boston University School of Public Health. Dr. Eddy's research interests include the history of infectious diseases, nontuberculous mycobacterial infections, bronchiectasis, and tuberculosis.

David Griffith, MD is currently Professor of Medicine at National Jewish Health (NJH) in Denver Colorado. Prior to joining NJH, he worked for 34 years at UT Health, Tyler, TX where he retired as Professor of Medicine in 2019. He held the William A. and Elizabeth B. Moncrief Distinguished Professorship for 17 years at UT Health. He is an Overseas Fellow of the Royal Society of Medicine and Fellow of the American Thoracic Society and American College of Chest Physicians

Dr. Griffith was Chief of Tuberculosis Services at UT Health for 15 years. He was Medical Director for the Center for Pulmonary Infectious Disease (CPIDC) at UT Health, which provided free TB consultations for the State of Texas, for 17 years. He was the Assistant Medical Director for the Heartland National TB Center in San Antonio, Texas for 12 years and Medical Director for the Texas State Inpatient TB facility, the Texas Center for Infectious Disease (TCID) for 19 years.

Dr Griffith was a member of the writing committee for the American Thoracic Society (ATS) 1997 Guidelines for Diagnosis and Treatment of Nontuberculous Mycobacteria (NTM) and the chair of the writing committee for the ATS and Infectious Diseases Society of America (IDSA) 2007 Guidelines for

Diagnosis, Treatment, and Prevention of NTM) Diseases. He was a member of the international multi-society committee that revised the NTM guidelines in 2020. He also serves as a member of the board of directors of the NTM Information and Research Foundation. Dr Griffith has authored or co-authored many manuscripts, reviews and book chapters related to NTM disease. He recently edited a book dedicated to the diagnosis and treatment of NTM infections.

Michelle Haas, MD Dr. Michelle Haas is an Infectious Diseases physician within the Division of Mycobacterial and Respiratory Infections at National Jewish Health. She is also an Associate Professor of Medicine within the Division of Infectious Diseases at the University of Colorado-Anschutz Medical Campus.

Dr. Haas has cared for people with TB since 2009, initially in Botswana for 2 years after completing her ID fellowship and for 11 years in the United States at the Denver TB Program. She served as the associate director of the Denver TB Program for 5 years and then briefly served as the interim director of the Denver TB Program while at Denver Health before transitioning to her current position at National Jewish Health in August of 2023. In her current role at National Jewish Health, she continues to provide consultative support for providers caring for people with mycobacterial infections and is the Director of Education for the Division of Mycobacterial and Respiratory infections. Dr. Haas is also a member of the Curry International Tuberculosis Center Warmline faculty, providing expert consultation for providers caring for people with TB since 2017. Her clinical and research interests are in optimizing care for people with mycobacterial infections, focusing on maximizing tolerability of treatment and mitigating health disparities in access to care.

Hermione Hurley, MBChB is an Associate Professor at University of Colorado, working at Denver Health as a Physician of Infectious Disease and Addiction Medicine. Her interest in providing low barrier care was prompted after observing poor health outcomes for people released from incarceration as they transitioned back into the community. Her position is supported by the departments of Psychiatry, Public Health and Medicine enabling integrated treatment of infection in opioid treatment programs, and substance use treatment for people living with HIV, and expansion of treatment into rural communities.

Shannon Kasperbauer, MD (Program Co-Chair) is an Associate Professor of Infectious Diseases at National Jewish Health and the University of Colorado Health Sciences Center. She is the director of education for the infectious disease division and manages the fellowship program. She has directed the Denver TB Course since 2007. Dr. Kasperbauer earned her medical degree at Wright State University School of Medicine in Dayton, OH. She completed her internship and residency in internal medicine at the University of Colorado, followed by her fellowship in infectious disease, also at the University of Colorado.

Dr. Kasperbauer has written many abstracts, and has several publications, including book chapters and journal articles. She has given many presentations on infectious diseases, both nationally and internationally.

Dr. Kasperbauer's areas of interest include Chronic Respiratory Infections, General Infectious Diseases, Nontuberculous Mycobacterial Infections and Tuberculosis.

Reeti Khare, PhD, D (ABMM) is the Infectious Disease Laboratory Director at National Jewish Health. She earned her doctorate in Virology and Gene Therapy from the Mayo Clinic Graduate School. She completed a post-doctoral fellowship at the University of Washington and returned to Mayo Clinic for a clinical microbiology fellowship, after which she became a diplomate of the American Board of Medical Microbiology. Prior to National Jewish Health, she served as the Director of Microbiology at Northwell

Health in New York. She has written several chapters, a book titled “Guide to Clinical and Diagnostic Virology” and has co-authored numerous articles in peer-reviewed journals. In her free time, she likes to spend time with her family, read, and go biking.

Tilman L. Koelsch, MD is a cardiothoracic radiologist and Clinical Associate Professor at NYU Grossman School of Medicine. Prior to joining NYU, he spent over nine years at National Jewish Health, where he served as the radiology liaison to the Division of Infectious Diseases. Dr. Koelsch earned his medical degree from the University of Nebraska Medical Center in Omaha, Nebraska. He completed his residency training at Maricopa Medical Center in Phoenix, Arizona, followed by a cardiothoracic radiology fellowship at National Jewish Health and the University of Colorado Health Sciences Center.

His professional interests include imaging of thoracic and extrathoracic infections, interstitial lung disease, CT dose reduction, and cardiovascular imaging.

Stephanie Wienkers, PharmD, BCACP is an ambulatory care clinical pharmacy specialist at Denver Health Federico F. Peña Southwest Family Health Center. She completed her undergraduate and doctorate in pharmacy at the University of Wisconsin-Madison, her pharmacy residency PGY1 at Virginia Garcia Memorial Health Center in Oregon and PGY2 at Denver Health. She serves as the PharmD champion of a large-scale, CDC grant-funded intervention to improve latent tuberculosis screening and treatment in Denver Health's 17 primary care clinics.