

3<sup>rd</sup>

# WORLD BRONCHIECTASIS CONFERENCE

**FINAL PROGRAM**

COURSE CHAIR:

**Anne E. O'Donnell, MD**

MedStar Georgetown University Hospital  
Georgetown University Medical Center  
Washington, D.C.

COURSE CO-CHAIR:

**Timothy R. Aksamit, MD**

Mayo Clinic  
Rochester, MN

**JULY 12-14, 2018**  
GEORGETOWN UNIVERSITY  
WASHINGTON, D.C.

**WorldBronch.com**



MedStar Georgetown  
University Hospital



**BRONCHIECTASIS AND NTM**  
RESEARCH REGISTRY  
A COPD Foundation Initiative



**EMBARC**

The European Bronchiectasis Registry

# 3<sup>rd</sup> WORLD BRONCHIECTASIS CONFERENCE

## WELCOME TO THE 3<sup>RD</sup> WORLD BRONCHIECTASIS CONFERENCE!

On behalf of MedStar Georgetown University Hospital and our prestigious faculty, we are delighted to welcome you to the **3<sup>rd</sup> World Bronchiectasis Conference 2018 (WBC)**! With over 300 participants from around the world, WBC 2018 will be the most successful program to date! We have created a dynamic agenda and have selected expert faculty in their fields that will provide you with opportunities to expand your network and enhance your knowledge over the next three days.

WBC aims to provide a forum for healthcare professionals, innovators, and researchers to explore the recent advances in the treatment and management of bronchiectasis and NTM. This year, we hope to continue that platform as well as provide an important opportunity for patients and healthcare providers to come together in discussion and interaction during our Saturday afternoon Patient Session.

Over the next few days, we encourage you to network with colleagues and build new relationships. We invite you to examine the material covered and discuss your own approach to patient care. We are confident that the knowledge and expertise shared throughout the conference will be resourceful and yield stronger care in your practice.

We would like to thank all members of our planning committee, abstract committee, faculty, panels, and of course you the attendees. Without your participation, this conference would not continue to grow year over year and provide important educational updates to the healthcare team globally.

Sincerely,



**Anne E. O'Donnell, MD**  
MedStar Georgetown University Hospital  
Georgetown University Medical Center  
Washington, D.C.



**Timothy R. Aksamit, MD**  
Mayo Clinic  
Rochester, MN

# Plan Your WBC 2018 Experience

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### KEY

*GUHCC: Georgetown University Hotel and Conference Center*



# General Information

## Registration Desk Hours

Thursday, July 12

Friday, July 13

Saturday, July 14

*West Lobby, GUHCC*

5:00 p.m. – 8:30 p.m.

7:30 a.m. – 5:00 p.m.

7:30 a.m. – 4:00 p.m.

## Exhibit Hall Hours

Thursday, July 12

Friday, July 13

Saturday, July 14

*Salon H, GUHCC*

5:00 p.m. – 10:00 p.m.

7:30 a.m. – 6:00 p.m.

7:30 a.m. – 5:00 p.m.

## Abstract Poster Viewing Hours

Thursday, July 12

Friday, July 13

Saturday, July 14

*South Gallery, GUHCC*

8:30 p.m. – 10:00 p.m.

7:30 a.m. – 6:00 p.m.

7:30 a.m. – 11:45 a.m.

## MODERATED POSTER VIEWING

Friday, July 13

11:45 a.m. – 1:30 p.m.

3:45 p.m. – 5:00 p.m.

# Meals and Breaks

*Salon H, GUHCC*

## Thursday, July 12

Opening Reception

8:30 p.m. – 10:00 p.m.

## Friday, July 13

Breakfast

Morning Coffee Break

Lunch

Afternoon Coffee Break

7:30 a.m. – 8:30 a.m.

9:30 a.m. – 9:45 a.m.

11:45 a.m. – 1:30 p.m.

2:30 p.m. – 2:45 p.m.

## Saturday, July 14\*

Breakfast

Patient Session Coffee Break

7:30 a.m. – 8:30 a.m.

2:30 p.m. – 2:45 p.m.

\* Please note that lunch is not provided on Saturday, July 14. The Leavey Center, connected with the Georgetown University Hotel & Conference center, has a Chick-Fil-A and Starbucks that will be open during this time. Epicurian Restaurant, which is a short walk from the hotel, will also be open.

Food and beverage are not permitted in Lohrfink Auditorium.

GUHCC: Georgetown University Hotel and Conference Center

# Attendee Resources



## HOW TO OBTAIN CE CREDITS AFTER THE CONFERENCE

Within two business days of the conference, you will receive an email containing a link to complete the online evaluation and attest to your CE hours. Once your evaluation has been completed and you select "Submit" you will be able to view and print your CE Certificate and/or MedStar CE Transcript.

Please complete the evaluation by August 14, 2018 in order to access your certificate. You may access your MedStar CE certificates and transcripts anytime at [medstar.cloud-cme.com](http://medstar.cloud-cme.com). Please select "My CE", and then "Evaluations & Certificates".

For additional questions regarding CE, please contact [medstarcme@gmail.com](mailto:medstarcme@gmail.com) or 202-780-1655.



## PRESENTATIONS

Presentations from the 3<sup>rd</sup> World Bronchiectasis will be emailed to attendees by July 20.



## INTERNET ACCESS

Free Wi-Fi/Internet Access will be available throughout the conference area.

NETWORK: guestnet  
*No passcode required*

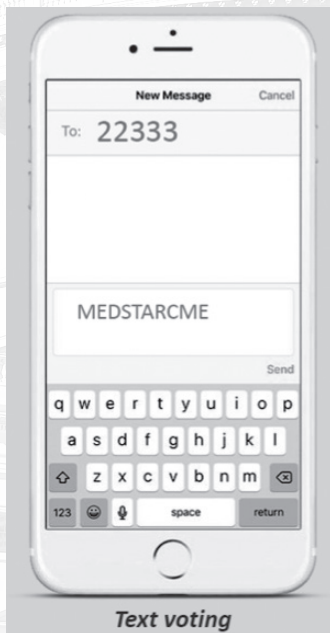
## RESPIRATORY CEU CERTIFICATES

*Attendees seeking Respiratory CEUs must visit the registration desk at the start of each day and prior to the Patient Session to record your attendance. Respiratory CEU certificates will be issued on-site at the conference.*

## Poll Everywhere

Before we begin the program, we will administer a pre-conference survey. You may participate by text message by following the below instructions

- Start a new text message and in the phone number or "to" line, type in 22333.
- Type medstarcme (all one word; not case sensitive) as the message and hit send.
- You will receive a text message saying that you've joined the session.
- When the question appears on the projection screen, the moderator will read each question aloud. Simply type your response (A, B, C, D, E, or F) and then hit send.



# Course Chair

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Georgetown University Medical Center  
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# Course Co-Chair

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Mayo Clinic  
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## Abstract Committee

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*\*Faculty is also a member of the Abstract Committee*



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Portland, OR

**Conroy Wong, MD**

Middlemore Hospital  
Auckland, NEW ZEALAND

*\*Faculty is also a member of the Abstract Committee*

# Agenda

## THURSDAY JULY 12

- 7:00 p.m. **Welcome Remarks**  
Timothy R. Aksamit, MD;  
Anne E. O'Donnell, MD  
*Lohrfink Auditorium, Hariri Building*
- 7:15 p.m. **Opening Address: Current State of Bronchiectasis and NTM**  
Kevin Winthrop, MD, MPH  
*Lohrfink Auditorium, Hariri Building*

- 8:00 p.m. **Advancing the Understanding and Care of Patients with Bronchiectasis**  
Alan F. Barker, MD  
*Lohrfink Auditorium, Hariri Building*

- 8:30 p.m. **Opening Reception with Exhibitors**  
*Salon H, GUHCC*

## FRIDAY JULY 13

- 7:30 a.m. **Breakfast and Visit the Exhibits**  
*Salon H, GUHCC*
- 8:30 a.m. **Breakthrough Therapies for Bronchiectasis**  
Session Chairs: Alan F. Barker, MD;  
Anthony De Soyza, MD, PhD  
Speakers: Charles Haworth, MD;  
Mark L. Metersky, MD  
*Lohrfink Auditorium, Hariri Building*

- 9:30 a.m. **Break and Visit the Exhibits**

- 9:45 a.m. MORNING  
BREAKOUT SESSIONS

**BREAKOUT 1:**  
**How to Evaluate Your Patient**  
M. Leigh Anne Daniels, MD, MPH  
*Salon E, GUHCC*

**BREAKOUT 2:**  
**Implementing a Comprehensive Airway Clearance Program**  
Pamela J. McShane, MD  
*Lohrfink Auditorium, Hariri Building*

**BREAKOUT 3:**  
**Medication Therapy and Pharmacogenetics: A PharmD's Perspective**  
Eric T. Matey, PharmD, RPH, MBA  
*Salon G, GUHCC*

- 10:45 a.m. **Microbiology and the Microbiome in Bronchiectasis and the Impact of Macrolides**  
Session Chairs: Patrick A. Flume, MD;  
Conroy Wong, MD  
Speakers: Josje Altenburg, MD, PhD;  
J. Stuart Elborn, MD  
*Lohrfink Auditorium, Hariri Building*

- 11:45 a.m. **Lunch and Moderated Abstract Poster Viewing**  
*South Gallery and Salon H, GUHCC*

- 1:30 p.m. **Update on Imaging and Diagnosing/Phenotyping in Bronchiectasis**  
Session Chairs: Pieter Goeminne, MD, PhD;  
Michal Shteinberg, MD, PhD  
Speakers: Stefano Aliberti, MD;  
Peter J. Bergquist, MD  
*Lohrfink Auditorium, Hariri Building*

- 2:30 p.m. **Break and Visit the Exhibits**

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## FRIDAY JULY 13 *(continued)*

2:45 p.m.

### AFTERNOON BREAKOUT SESSIONS

#### **BREAKOUT 1: How to Evaluate Your Patient**

Gregory Tino, MD  
*Ballroom E, GUHCC*

#### **BREAKOUT 2: Implementing a Comprehensive Airway Clearance Program**

Peadar G. Noone, MD  
*Lohrfink Auditorium, Hariri Building*

#### **BREAKOUT 3: Medication Therapy and Pharmacogenetics: A PharmD's Perspective**

Eric T. Matey, PharmD, RPh, MBA  
*Salon G, GUHCC*

3:45 p.m.

### **Moderated Abstract Poster Viewing** *South Gallery, GUHCC*

5:00 p.m.

### **Inflammation and Infection in Bronchiectasis**

Session Chairs: Doreen J. Addrizzo-Harris, MD;  
Eva Polverino, MD, PhD  
Speaker: James Chalmers, MBChB, PhD  
*Lohrfink Auditorium, Hariri Building*

## SATURDAY JULY 14

### NTM SESSION

*Lohrfink Auditorium, Hariri Building*

7:30 a.m.

### **Breakfast and Visit the Exhibits** *Salon H, GUHCC*

8:30 a.m.

### **Epidemiology and Environmental Factors in NTM**

Session Chair: Anne E. O'Donnell, MD  
Speakers: Gwen A. Huitt, MD;  
Kenneth N. Olivier, MD, MPH

9:30 a.m.

### **Management of NTM Infections: Now and the Future**

Session Chairs: David E. Griffith, MD;  
Kozo Morimoto, MD  
Speakers: Charles L. Daley, MD;  
Won-Jung Koh, MD

10:30 a.m.

### **Panel Discussion: A Spectrum of NTM Cases**

Moderators: Kevin P. Fennelly, MD, MPH;  
David E. Griffith, MD; Won-Jung Koh, MD  
Panelists: Shannon Kasperbauer, MD;  
Marc Margolis, MD; Julie V. Philley, MD;  
Kevin Winthrop, MD, MPH

11:45 a.m.

### **Closing Remarks**

Timothy R. Aksamit, MD;  
Anne E. O'Donnell, MD

*Please note that lunch is not provided on Saturday, July 14, 2018. Please see the bottom of page 4 for more details on local lunch options.*

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## SATURDAY JULY 14

### PATIENT SESSION

Salon G, GUHCC

12:00 p.m. **Patient Session Registration\***  
*West Lobby, GUHCC*

1:00 p.m. **Overview of Bronchiectasis and NTM**  
Pamela J. McShane, MD

1:30 p.m. **Why Do I Need Airway Clearance and Pulmonary Rehab?**  
M. Leigh Anne Daniels, MD, MPH

2:00 p.m. **What Can I Do About My Environment?**  
Anne E. O'Donnell, MD

2:30 p.m. **Break**

2:45 p.m. **I Have an NTM Infection (MAC/M. Abscessus): What are My Options?**  
Julie V. Philley, MD

3:15 p.m. **I Have Pseudomonas Infection: What Are My Options?**  
Gregory Tino, MD

3:45 p.m. **Joint Patient/Healthcare Provider Panel Discussion**  
Moderator: Anne E. O'Donnell, MD  
Panelists: Christy Heuple;  
Shannon Kasperbauer, MD;  
Isabelle LeClerc, RN;  
Kenneth N. Olivier, MD, MPH;  
Kevin O'Neil, MD, MHA

4:45 p.m. **Closing Remarks**  
Timothy R. Aksamit, MD;  
Anne E. O'Donnell, MD

*\*Those registered for the full three-day conference do not need to visit the registration desk again prior to the Patient Session.*

GUHCC: Georgetown University Hotel and Conference Center



## TOP ABSTRACT AWARD

**B-1      **Pregnancy Zone Protein (PZP) is Released from Neutrophils During Chronic Airway Inflammation in Bronchiectasis****

*Presenting Author: Simon Finch, MD;  
Additional Authors: Diane Cassidy; James D. Chalmers, MD, PhD; Holly R. Keir; Amelia Shoemark, PhD*

## YOUNG INVESTIGATOR AWARD

**B-2      **Neutrophil Extracellular Traps and the Lung Microbiome in Bronchiectasis****

*Presenting Author: Holly R. Keir  
Additional Authors: James D. Chalmers, MD, PhD; Alison Dicker, PhD; Christopher Fong, MD; Brandon Tan*

## ABSTRACTS BY CATEGORY

### GENERAL BRONCHIECTASIS

**A-1      **Effect of Inhaled Liposomal Ciprofloxacin on Severe Pulmonary Exacerbations in Patients with Bronchiectasis and Chronic Pseudomonas Aeruginosa Lung Infections****

*James Chalmers, MBChB, PhD; Angela Davis, MD; Juergen Froehlich, MD; Igor Gonda, MD; Charles Haworth, MD; Anne E. O'Donnell, MD*

**A-2      **The Clinical Features of Bronchiectasis Associated with Alpha-1 Antitrypsin Deficiency, Common Variable Immunodeficiency, and Primary Ciliary Dyskinesia****

*Doreen J. Addrizzo-Harris, MD; Timothy R. Aksamit, MD; Alan F. Barker, MD; Radmila Choate, MPH; Charles L. Daley, MD; M. Leigh Anne Daniels, MD, MPH; Angela DiMango; Edward Eden; Kevin Fennelly, MD, MPH; David E. Griffith, MD; Margaret Johnson; Michael Knowles; Mark L. Metersky, MD; Peadar G. Noone, MD; Anne E. O'Donnell, MD; Kenneth Olivier, MD, MPH; Matthias Salathe; Andreas Schmid; Byron Thomashow; Gregory Tino, MD; Kevin Winthrop, MD, MPH*

**A-3      **Pulmonary Rehabilitation in Bronchiectasis – Program Components, Outcomes and Insurance Billing Codes****

*Shane S. Blake; Gerilynn A. Connors, BS; James Lamberti, MD; Kimberly Palczynski*

**A-4      **The Comparison of Bronchiectatic Lung Disease in Different Ages****

*Adi Dagan, MD; Ori Efrati, MD; Amir Onn, MD*

**A-5      **A Passport for Patients with Non-Cystic Fibrosis Bronchiectasis: A Qualitative Investigation of Patients' Beliefs and Expectations****

*Anthony De Soya, MD, PhD; Paul McCallion, PT*

**A-6      **A Pilot Study of Vitamin D3 Supplementation in Adults with Non-CF Bronchiectasis****

*Jim Bartley; Benjamin A. Diggins; Jeff Garrett; Alain Vandal, OTR; Conroy Wong, MD*



- A-7 Longitudinal Analysis of Pulmonary Exacerbations: Results from Orbit-3 and Orbit-4 Trials of Ard-3150 in Patients with Non-Cystic Fibrosis Bronchiectasis and Chronic Infection With *Pseudomonas Aeruginosa***  
*David Cipolla, MD; Angela Davis, MD; Juergen Froehlich, MD; Igor Gonda, MD; Bruce Thompson, MD*
- A-8 Safety and Tolerability of Ard-3150, Inhaled Liposomal Ciprofloxacin, in Patients with Bronchiectasis and Chronic *Pseudomonas Aeruginosa* Lung Infection: Results from Two Phase 3 Trials**  
*Angela Davis, MD; Juergen Froehlich, MD; Igor Gonda, MD; Charles Haworth, MD; Anne E. O'Donnell, MD; Sanjay Sethi, MD*
- A-9 Comparative Risks of Non-Acute Inhaled Corticosteroids or Macrolide Monotherapy in U.S. Medicare Bronchiectasis Patients**  
*Emily Henkle, PhD; Alexandra L. Quittner, PhD; Greg Ranches, MD; Kevin L. Winthrop, MD, MPH*
- A-10 Clinical, Functional and Microbiologic Characteristics of Patients with Co-Existence COPD And Bronchiectasis: Comparison to COPD or Bronchiectasis Alone**  
*Katerina Dimakou, MD, PhD; Georgios Drivas, MD; Georgios Hillas, MD, PhD; Maria Kaponi, MD, MBA; Sofia Koukidou, MD*
- A-11 The Clinical Impact of Self-Reported Symptoms of Chronic Rhinosinusitis in Adults with Bronchiectasis**  
*Janet L. Bondarenko, PT; Brenda M. Button, PhD; Annemarie L. Lee, PhD; Caroline H. Nicolson*
- A-12 Parental Perception of Quality of Life in Children with Bronchiectasis**  
*Narelle S. Cox, PhD; Anne B. Chang, PhD; Annemarie L. Lee, PhD*
- A-13 Inhaled Steroids Improve Quality of Life Only in Those Patients with Bronchiectasis and Peripheral Eosinophilia: A Post-Hoc Analysis of a Randomized Clinical Trial**  
*Stefano Aliberti, MD, PhD; David de La Rosa, MD, PhD; Luis Maiz, MD, PhD; Miguel Angel Martinez-Garcia, MD, PhD; Casilda Oliveira, MD, PhD*
- A-14 "Idiopathic" Bronchiectasis in an Older Patient: Use of Standard Clinical Methods, with Novel Laboratory Techniques to Establish a Specific Diagnosis**  
*Deborah M. Cholon, PhD; Martina S. Gentzsch, PhD; Matthew S. McCravy, MD; Peadar G. Noone, MD; Nancy L. Quinney*
- A-15 Age, Fev1 and Severe Exacerbation Frequency are Major Determinants of Impaired Quality of Life (QOL) for Australians with Bronchiectasis**  
*Anne Chang, MD, PhD; Cameron Hunter, MD; Graeme Maguire, MD, PhD; Peter Middleton, MD, PhD; Dean Mills, PhD; Lucy Morgan, MD, PhD; Enna Stroiil-Salama; Rachel Thomson, MD PhD; Simone Visser, MD; Grant Waterer, MD, PhD*
- A-16 Independent Predictors of Primary Ciliary Dyskinesia as the Etiology of Adult Bronchiectasis: Results from the German Bronchiectasis Registry Prognosis**  
*Roland Diel; Pontus Mertsch, MD; Jessica Rademacher, MD; Felix C. Ringshausen, MD; Tobias Welte, MD*

- A-17 Primary Ciliary Dyskinesia in Adults with Bronchiectasis: Data from the Embarc Registry**  
*Stefano Alberti, MD; F. Blasi; W. Boersma; James Chalmers, MBChB, PhD; Anthony De Soyza, MD, PhD; Katerina Dimakou, MD, J. Stuart Elborn, MD; PhD; Pieter Goeminne, MD, PhD; Charles Haworth, MD; Adam T. Hill; Michael Loebinger, MD; Rosario Menéndez; M. Murris; Eva Polverino, MD, PHD; Felix C. Ringshausen, MD; Amelia Shoemark, PhD; A. Torres; Montserrat Vendrell, MD, PhD; T. Welte; R. Wilson.*
- A-18 A Randomized Controlled Trial of Long Term Airway Clearance with Oscillating Positive End Expiratory Pressure Device Versus Autogenic Drainage in People with Bronchiectasis - 30 Patients Interim Analysis**  
*Yochai Adir, MD, MPH; Lea Bentur, MD; Galit Livnat, MD; Michal Shteinberg, MD, PhD; Naama Yaari, BSN*
- A-19 High Frequency Chest Wall Oscillation Physiotherapy as Part of a Bundle of Care Results in Reduced Hospitalizations and Stability of Lung Function in Non-CF Bronchiectasis**  
*Pownner M. Jordan, DO; Denay P. Kirkpatrick, CRNP; Andrew B. Nesmith; Jessica K. Nichols, BSN; George M. Solomon, MD*
- MARKERS, MECHANISMS, AND MICROBIOLOGY**
- B-3 Comparison Between Culture and Culture Independent Assessment of Bronchoalveolar Lavage Fluid in Bronchiectasis**  
*Doreen Addrizzo-Harris, MD; Shriram V. Alapaty, MD; Leopoldo Segal, MD; Imran Suleiman, MD; Benjamin Wu, MD*
- B-4 Bronchiectasis and Fungal Sensitization - A Marker of Disease Severity But Not Exacerbation Risk**  
*Stefano Alberti, MD; F. Blasi; Rita Boaventura, MD; W. Boersma; James Chalmers, MBChB, PhD; Anthony De Soyza, MD, PhD; Katerina Dimakou, MD, PHD; J. Stuart Elborn, MD; Pieter Goeminne, MD, PHD; Charles Haworth, MD; Adam T. Hill; Michael R. Loebinger, MD; Rosario Menéndez; M. Murris; Eva Polverino, MD, PhD; P. Regis-Burgel; Felix C. Ringshausen, MD; A. Torres; Montserrat Vendrell, MD, PhD; T. Welte; R. Wilson*
- B-5 Markers of Non-Cystic Fibrosis Bronchiectasis Disease Severity and Nutrition in the United States Bronchiectasis Research Registry**  
*Radmila Choate, MPH; M. Leigh Anne Daniels, MD, MPH; Katherine Despotes, MD; Peadar G. Noone, MD*
- B-6 Aspergillus Airway Colonization in Non-CF Bronchiectasis Patients is Not Associated with Disease Severity**  
*Doreen Addrizzo-Harris; Timothy R. Aksamit, MD; Alan Barker, MD; Charles L. Daley, MD; M. Leigh Anne Daniels, MD, MPH; Edward Eden, MD; Radmila Choate, MPH; Angela DiMango, MD; Kevin Fennelly, MD; David E. Griffith, MD; Margaret M. Johnson, MD; Michael R. Knowles, MD; David Mannino, MD; Mark L. Metersky, MD; Peadar G. Noone, MD; Anne E. O'Donnell, MD; Kenneth N. Olivier, MD, MPH; Matthias A. Salathe, MD; Andreas Schmid, MD; Byron Thomashow, MD; Gregory Tino, MD; Kevin L. Winthrop, MD, MPH*
- B-7 Microbial Spectrum of Sputum in Patients with Bronchiectasis in Stable Phase**  
*Kateryna Bogatska, MD; Valeriia Dmytrychenko, MD; Kateryna Gahynova, MD, PhD; Tetyana Kireyeva, MD; Tetyana Pertseva, MD, PhD*
- B-8 Histopathologic Manifestations of Idiopathic Bronchiectasis in an Endobronchial Biopsy Based Series**  
*Sarah E. Gray, MD; Kyle D. Hogarth, MD; Aliya N. Husain, MD; Pamela J. McShane, MD*



**B-9 The Association of Stenotrophomonas Maltophilia with Patient Characteristics and Outcomes in Bronchiectasis**

*Radmila Choate, MPH; Mark Metersky, MD*

**B-10 Potent Activity of a Novel Gyrase Inhibitor (Spr719/Spr720) In Vitro and in a Prolonged Acute Mycobacterium Abscessus Mouse Model of Infection**

*Diane Ordway, PhD; Aileen Rubio, PhD*

**B-11 Autoimmunity to Bactericidal/Permeability-Increasing Protein in Chronic Airway Infection of Bronchiectasis and Cystic Fibrosis Patients**

*Sladjana S. Gardner, PhD; Rachel E. Meagher; William F. Rigby, MD; Jomkuan Theprungsirikul, BS; Kevin L. Winthrop, MD, PhD*

## NTM

**C-1 Clinical Significance of Serum Anti-Glycopeptidolipid-Core IgA Antibody in Patients Newly Diagnosed with Mycobacterium Avium Complex Lung Disease**

*Takanori Asakura, MD, PhD; Hajime Goto, MD, PhD; Naoki Hasegawa, MD, PhD; Shuichi Matsuda, MD; Kozo Morimoto, MD, PhD*

**C-2 High-Dose Inhaled Nitric Oxide as a Potential Therapy Against Mycobacterium Abscessus Lung Infection in Cystic Fibrosis**

*Kristijan Bogdanovski; Abdi A. Ghaffari, PhD; Joas L. da Silva, Kenneth Olivier, MD, MPH, PhD; Adrian M. Zelazny, PhD*

**C-3 Health-Related Quality of Life in Bronchiectasis Patients with Nontuberculous Mycobacterial Disease**

*Kieren C. Brown, MBBS; Lucy Burr, MD; Lucy C. Morgan, MD, PhD; Enna Stroil-Salama; Rachel Thomson, MD, PhD*

**C-4 Colonization with Pseudomonas Aeruginosa as a Predictor of Future Nontuberculous Mycobacteria Isolation**

*Timothy R. Aksamit, MD; Amanda E. Brunton, MPH; Sarah A. Siegel, MPH; Kevin L. Winthrop, MD, MPH*

**C-5 Antimicrobial Peptides Against Mycobacterium Abscessus**

*Joas DaSilva, PhD; Kevin P. Fennelly, MD; Kenneth N. Olivier, MD, MPH; Adrian M. Zelazny, PhD*

**C-6 Randomized Phase 3 Trial of Amikacin Liposome Inhalation Suspension (ALIS) for Treatment-Refractory Nontuberculous Mycobacterial Lung Disease Caused By Mycobacterium Avium Complex (MAC-LD) in Adult Patients**

*Doreen J. Addrizzo-Harris, MD; Timothy R. Aksamit, MD; Paola F. Castellotti, MD; Gina Eagle, MD; Stephen K. Field, MD; Patrick A. Flume, MD; David E. Griffith, MD; Naoki Hasegawa; Adam T. Hill; Michael R. Loebinger, MD; Theodore K. Marras, MD; Lucy C. Morgan, MD, PhD; Kozo Morimoto, MD; Jim P. Nezamis, PhD; Anne E. O'Donnell, MD; Felix C. Ringshausen, MD; Stephen J. Ruoss, MD; Rachel M. Thomson, MD, PhD; Kevin L. Winthrop, MD; Jae Joon Yim, MD*

**C-7 Psychometric Analyses of the NTM Module: First Patient-Reported Reported Outcome Measure for Pulmonary Nontuberculous Mycobacterial Disease**

*Emily Henkle, PhD; Alexandra L. Quittner, PhD; Greg Ranches, MD; Kevin L. Winthrop, MD, MPH*



- C-8 Lady Windermere's Dudemere? Pulmonary NTM in Men**  
*Jennifer Ku, MPH; Gregory Ranches, MD; Sarah A. Siegel, MPH; Kevin L. Winthrop, MD, MPH*
- C-9 Long-Term Natural History of Non-Cavitary Nodular Bronchiectatic Nontuberculous Mycobacterial Lung Disease**  
*Charles L. Daley, MD; Kyeongman Jeon, MD; Byung Woo Jhun, MD; Won-Jung Koh, MD; Seong Mi Moon, MD*
- C-10 Treatment of Refractory Mycobacterium Abscessus Lung Infection with Inhaled Intermittent Nitric Oxide**  
*Sandra D. Macdonald, RN; Kenneth N. Olivier, MD, MPH; Ann M. Peterson, PhD; Mark V. Rimkus, RT; Chevalia J. Robinson, RN*
- C-11 Vitamin D Deficiency Increases the Risk of Pulmonary Nontuberculous Mycobacteria in Cystic Fibrosis**  
*Keira A. Cohen, MD; Mark T. Jennings, MD; Matthew N. Santos; Aniket Sidhaye, MD; Yuqing Sun, PhD*
- C-12 Perception for Risk and Disease Severity of NTM Lung Disease - Physician Survey in Germany, UK, Italy, France and The Netherlands**  
*Marko Obradovic, PhD; Roald van der Laan, PhD; Jakko van Ingen, MD, PhD; Dirk Wagner, MD, PhD*
- C-13 Screening for NTM Lung Disease in Adult Non-CF Bronchiectasis Patients - Physician Survey in Germany, UK, Italy, France and The Netherlands**  
*Marko Obradovic, PhD; Roald van der Laan, PhD; Jakko van Ingen, MD, PhD; Dirk Wagner, MD, PhD*
- C-14 Six-Minute Walk Test (6MWT) Performance in Adult Patients Receiving Amikacin Liposome Inhalation Suspension (ALIS) for Treatment-Refractory Nontuberculous Mycobacterial (NTM) Lung Disease Caused by Mycobacterium Avium Complex (MAC)**  
*Doreen J. Addrizzo-Harris, MD; Timothy R. Aksamit, MD; Luigi R. Codecasa, MD; Gina Eagle, MD; Stephen K. Field, MD; Patrick A. Flume, MD; David E. Griffith, MD; Naoki Hasegawa; Adam T. Hill; Michael R. Loebinger, MD; Theodore K. Marras, MD; Lucy C. Morgan, MD, PhD; Kozo Morimoto, MD; Jim P. Nezamis, PhD; Anne E. O'Donnell, MD; Felix C. Ringshausen, MD; Stephen J. Ruoss, MD; Rachel M. Thomson, MD, PhD; Kevin L. Winthrop, MD; Jae Joon Yim, MD*
- C-15 Rate of All-Cause Hospitalization Between Treatment Groups Following Diagnosis of Nontuberculous Mycobacterial Lung Disease in a US National Managed Care Plan**  
*Engels Chou, MS; Gina Eagle, MD; Theodore Marras, MD; Mehdi Mirsaeidi, MD, MPH; Ping Wang, PhD; Raymond Zhang, MS; Quanwu Zhang, PhD*

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## What could be worse than having NTM? **Not knowing you have NTM.**

Nontuberculous mycobacterial (NTM) lung disease is a chronic, debilitating condition that can significantly increase patient **morbidity and mortality**<sup>1-5</sup>

- Approximately **2/3 of NTM patients** have moderate to severe NTM by the time they are diagnosed<sup>6,7</sup>
- Host susceptibility factors that **increase risk** for NTM include bronchiectasis, COPD, asthma, and other conditions or specific genetic disorders that cause structural lung damage and impaired clearance<sup>8-10</sup>
  - Patients with susceptibility factors, such as these underlying conditions, who present with pulmonary (eg, chronic cough) and nonspecific systemic symptoms (eg, malaise or fever) **should be assessed for NTM**<sup>9,11</sup>

Visit **NTMFacts.com** for more information.

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