



# ***Nontuberculous Mycobacteria***

*Expanding NO into the home market for lung infections*

# Home Market: Nontuberculous Mycobacteria (NTM)

NTM is an FDA disease area of focus with limited treatment options

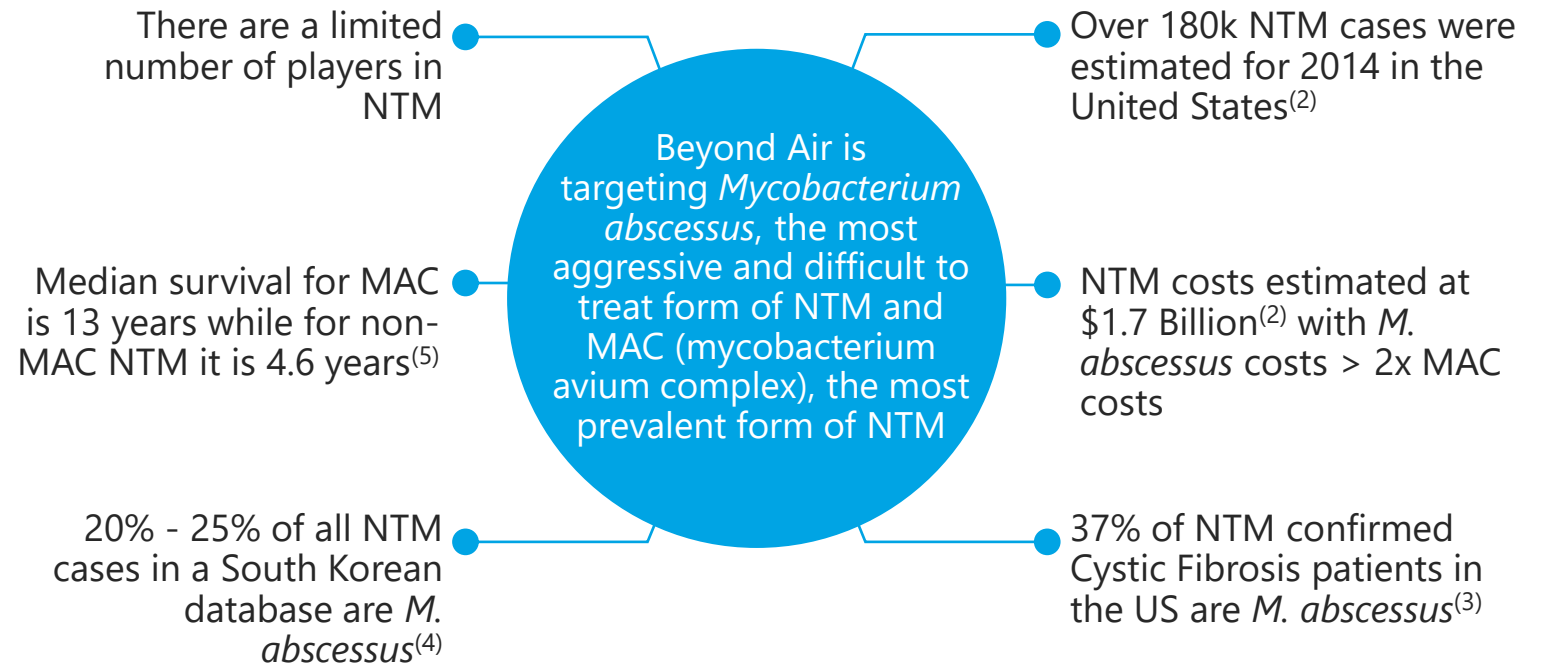
## How is NTM acquired?<sup>(1)</sup>

- Acquired by inhalation from the environment
- Water thought to be the main source
- Warmer climates have higher infection rates
- Patient to patient transmission possible

## Who is at risk?<sup>(1)</sup>

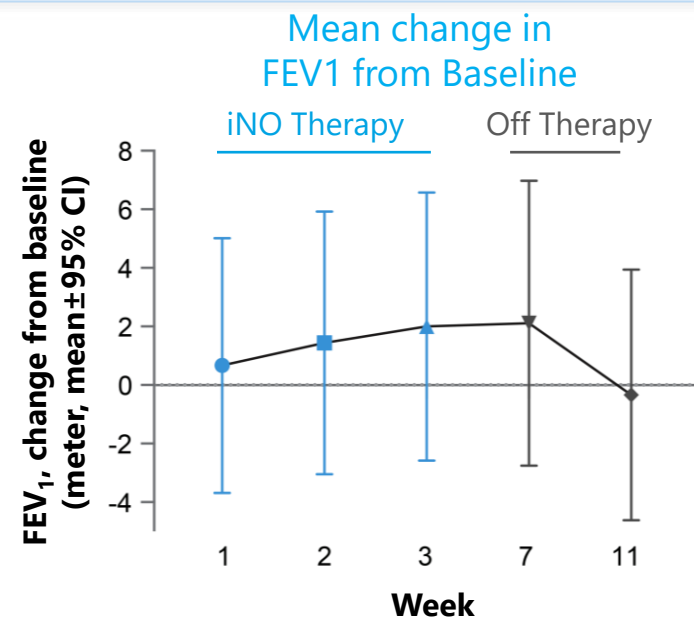
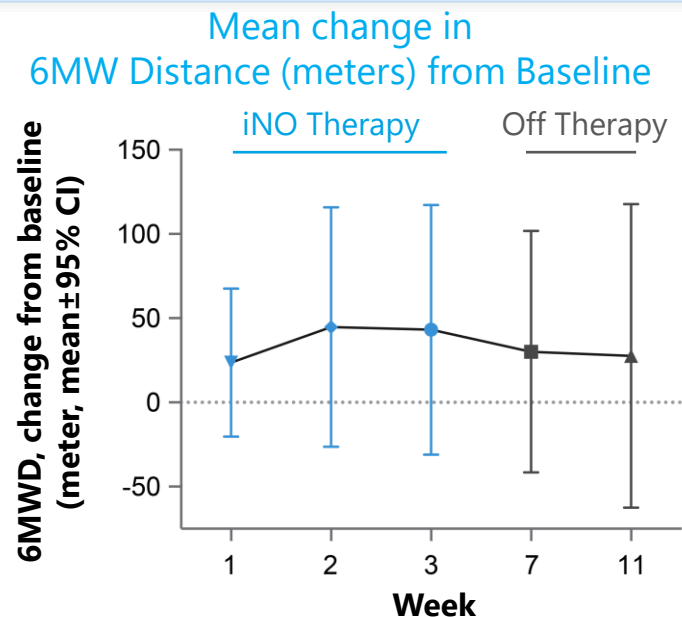
- Underlying lung disease and/or genetic predisposition
- Cystic Fibrosis (CF)
- COPD (chronic obstructive pulmonary disease)
- Bronchiectasis
- Receiving immunosuppressive therapy

## NTM Market Dynamics



# Pilot Study in NTM infected CF Patients Demonstrates Safety and Efficacy

Single arm study with 160 ppm NO showed a reduction in bacterial load and improvements in quality of life  
Data Published in the Journal of Cystic Fibrosis (Bentur et al., 2019)



- 9 CF patients with refractory MABSC were treated at 3 centers in Israel with NO added to background antibiotic therapy
  - 160 ppm NO was given via mask for 30 min 5x/day for 14 days and 3x/day for 7 days
  - Primary endpoint of safety was met, with no NO-related serious adverse events (SAEs) observed
  - Bacterial load, as measured by qPCR showed a 65% reduction at day 81 versus baseline
    - » One patient was culture negative at Day 51 and Day 81, two others had one negative culture
  - Quality-of-Life data showed positive trends on relevant questions
- 4 patients treated under compassionate use experienced similar results
  - 1 treated at NIH with LungFit™, 1 treated safely with 250 ppm NO, 1 culture conversion

# Pilot LungFit™ NTM Study Protocol Summary

- Open label pilot study with 12 weeks of treatment and 12 weeks of observation
- Approximately 20 subjects >18 years of age with NTM lung infection refractory to antibiotic therapy
  - Both MAC (Mycobacterium avium complex) and *Mycobacterium abscessus* will be included in CF and non-CF patients
- Study start fourth quarter 2020 with interim results expected late 2Q21 and final results in 2H21
- Four doses of NO per day for 14 days followed by two doses of NO per day for 70 days (all patients will remain on background antibiotic therapy)
  - Each dose lasts 40 minutes and are 4-5 hours/at least 9 hours apart
  - Subjects will be titrated from 150 ppm up to 250 ppm in hospital with all subsequent administrations at home
- Primary endpoint is safety
- Key Secondary endpoints
  - Culture conversion/bacterial load
  - Quality of Life
  - Respiratory function
  - Physical function (activity tracker, 6MWT, etc.)