SESSION: CLINICAL DEVELOPMENT OF NEW TB VACCINES

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Virtual Global Forum
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PROGRESS!

• 1921 – BCG first used in infant

• 2018 – BCG revaccination results announced at 5th Global Forum
  45% VE (95%CI: 6.4, 68.1) against sustained IGRA conversion in M.tb-uninfected adolescents

• 2019 – M72 Ph2b results published
  50% VE (95%CI: 2.1, 74.2) against TB disease in HIV(-), QFT+ adults with 3 years follow-up
TAKEAWAYS FROM RECENT EFFICACY TRIALS

- Improved TB vaccines are feasible
- BCG revaccination: Potential new use of BCG - protecting high risk, uninfected populations from *M. tb* infection
- M72/AS01E POC: Subunit vaccines (expressing as few as 2 *M. tb* antigens) can be protective and vaccines can be used to protect people with LTBI (QFT+) from developing active TB
- Empiric product development still has a role; human efficacy data are crucial for advancing TB vaccine development
- Clinical and upstream research should be conducted in parallel, continuously informing each other
- Beware of dog(ma)!
GLOBAL CLINICAL PIPELINE OF TB VACCINE CANDIDATES

- **Phase 1**
  - **AdHu5Ag85A**
    - McMaster, CanSino
  - **AEC/BC02**
    - Anhui Zhifei Longcom

- **Phase 2a**
  - **RUTI**
    - Archivel Farma, S.L
  - **MTBVAC**
    - Biofabri, TBVI, Zaragoza, Aeras/IAVI
  - **TB/FLU-04L**
    - RIBSP
  - **ChAdOx185A/MVA85A**
    - (ID/IM/Aerosol)
    - Univ of Oxford

- **Phase 2b**
  - **DAR-901**
    - Dartmouth, GHIT
  - **M72/AS01E**
    - GSK, IAVI, Gates MRI
  - **BCG Revaccination**
    - Gates MRI
  - **H56: IC31®**
    - SSI, Valneva, IAVI
  - **ID93 + GLA-SE**
    - IDRI, Wellcome Trust, Quintiles
  - **GamTBvac**
    - MoH Russia

- **Phase 3**
  - **VPM 1002**
    - SIPL/VPD
  - **Immuvac**
    - Cadila, ICMR

**POI = Prevention of Infection; POD=Prevention of Disease; POR = Prevention of Recurrence; HHC = household contact(s); LTBI+ = TST+ or IGRA+**

**Viral Vector**  
**Protein / Adjuvant**  
**Mycobacterial – Killed or Lysate**  
**Mycobacterial – Live attenuated**

N.B. Information self-reported by vaccine sponsors
THANK YOU