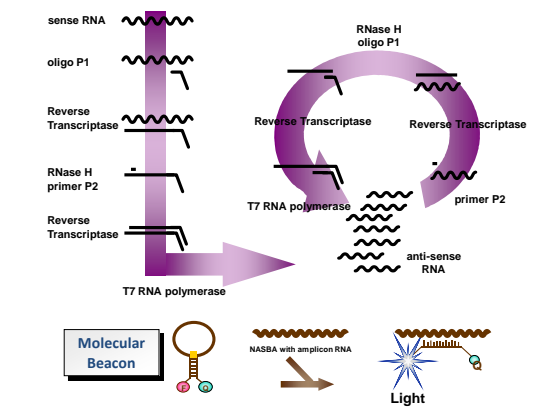
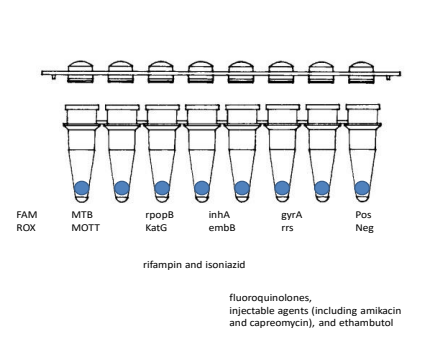
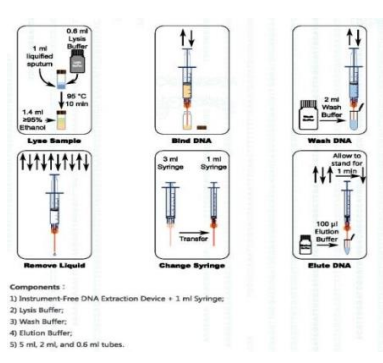


PO-i-CT (Point-of- I-care-test) Consortium 2
BioVisible, Dr. M.E. van der Rest, B.V., Christophorus-Kliniken Coesfeld, Prof. dr. med. Lutz von Müller, Universitair Medisch Centrum Groningen (UMCG), Dr. J. Rossen

Objectives and activities

- Make a POC test available to perform "on site" rapid assessment of possible health hazards.
- Method; Isothermal Nucleic acid sequence based amplification, NASBA in combination with a portable amplification and detection device.
- Target; RNA. This enables viability detection + increased sensitivity of the test due to high target number per cell, tmRNA 1000 copies per cell.
- Applications; Tuberculosis risks of newly arriving and/or border crossing refugees. TB discharge from hospital after treatment. On site *Legionella* detection

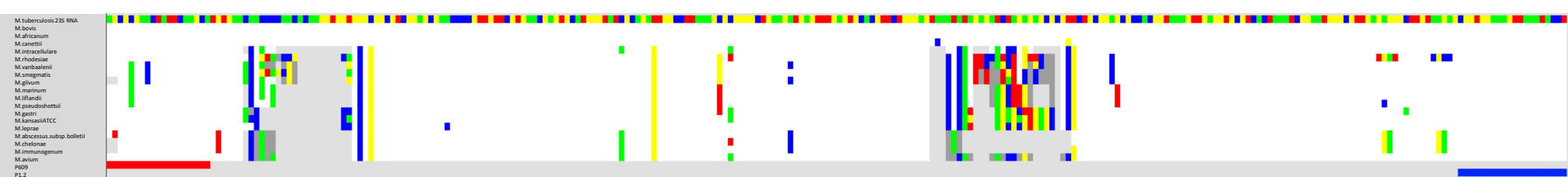


Nucleic acid isolation

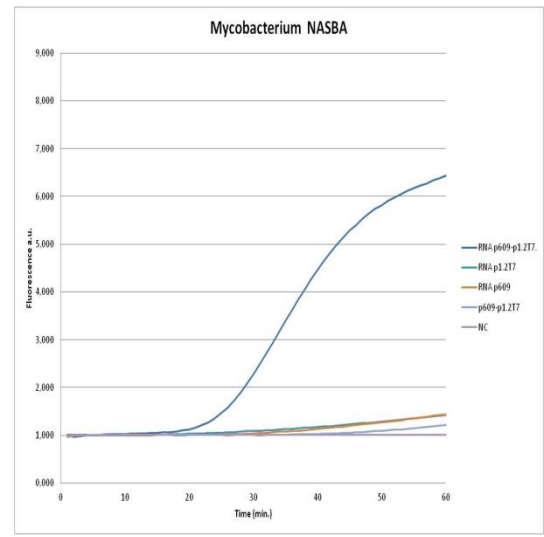
8 tube test format

NASBA

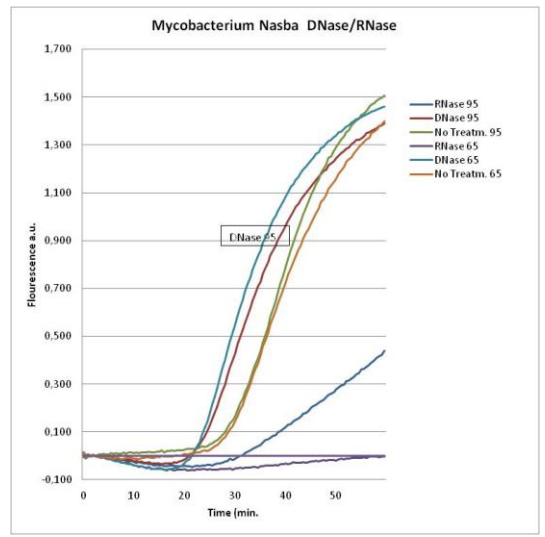
Amplification & detection



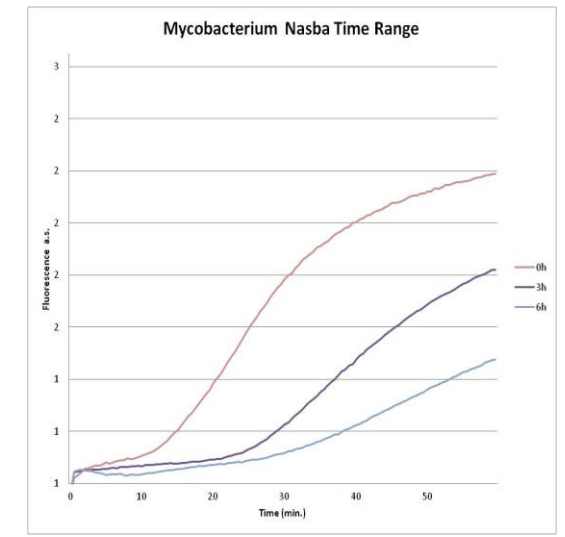
Mycobacterium 23S RNA, white space indicates identical residues.



23S RNA amplification



No DNA amplification



Rapid RNA breakdown

Outlook

- Design tests for TB tmRNA, multiple drug resistant genes, *Mycobacteria* other than MTC, *Legionella* tmRNA
- Production probe-primer accuserspheres and dedicated 8 tube tests
- RNA preservation and isolation protocol
- Collect TB samples from patients during and following treatment
- Collect *Legionella* samples from contaminated location before and after treatment