



MICROBIOLOGY LABORATORY

Thammasat University Hospital

Microbiology Laboratory



Location

• Kittiwattana building, 3rd floor



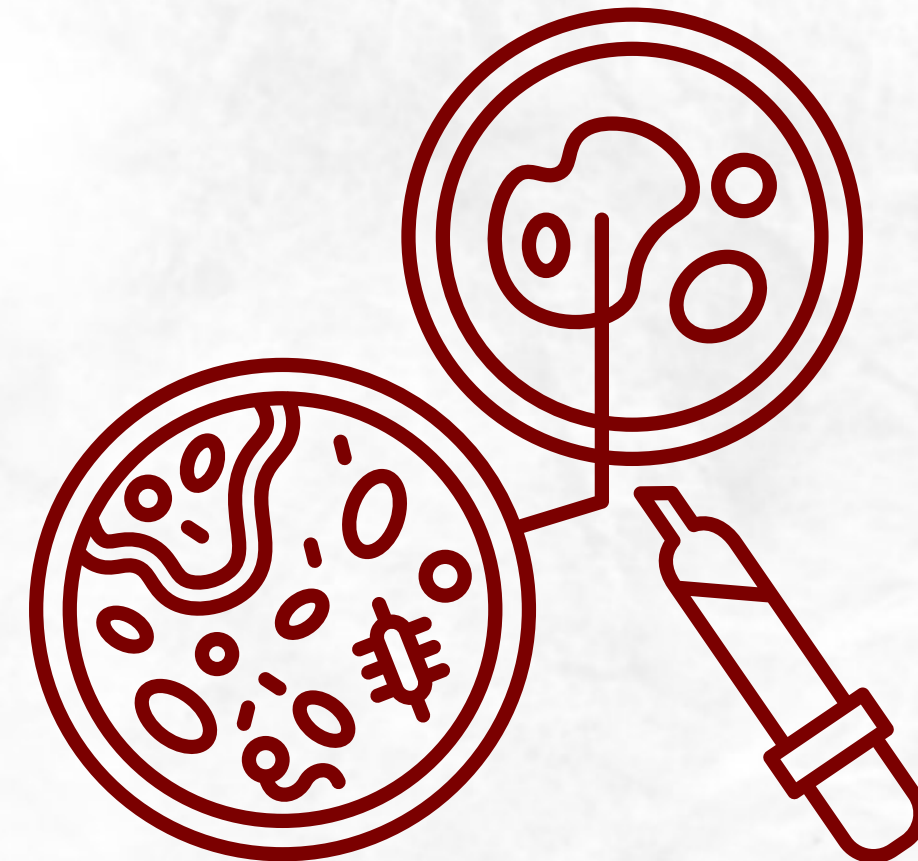
contact us

Tel. 02-9269460
02-9268802



Office hour

• Service 24 hours, everyday





Scope of work

- 01 To assist in the diagnosis of infectious diseases
- 02 Service for bacteriology and mycology
- 03 Culture ; Aerobic bacteria , Fungal , Mycobacterium (TB)
- 04 Susceptibility test
- 05 Microscopic exam ; Gram stain , Acid fast stain ,
Modified acid fast stain , KOH
- 06 PCR for TB

CULTURE

HEMOCULTURE

Adult



Pediatric



Fungus/TB



CULTURE

Specimens

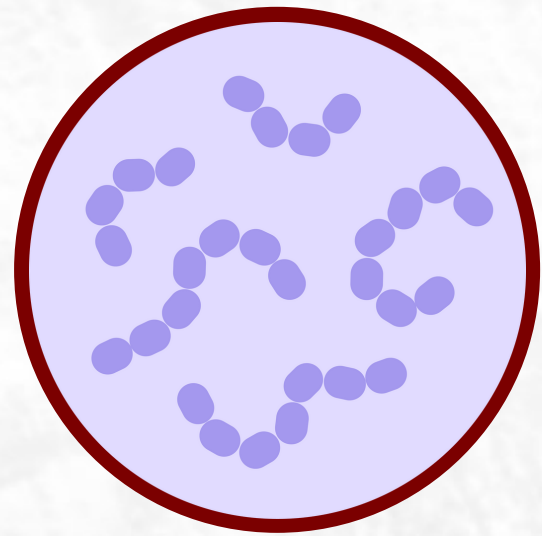


Hemoculture

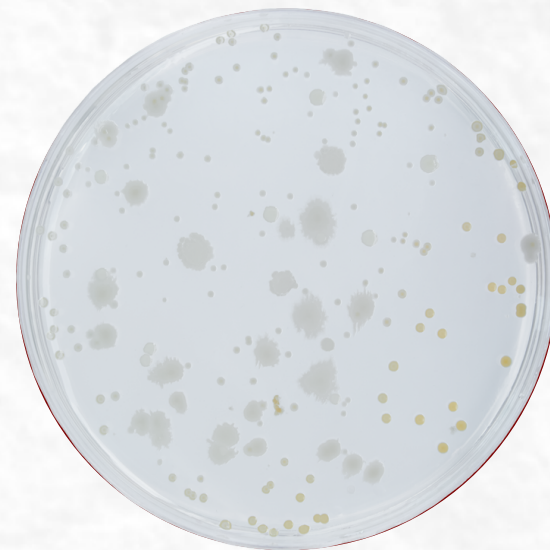
- Automate
- CO₂ detection (aerobic bacteria)
- O₂ detection (Fungus / TB)
- Every 12 min. detection
- **POSITIVE** notification



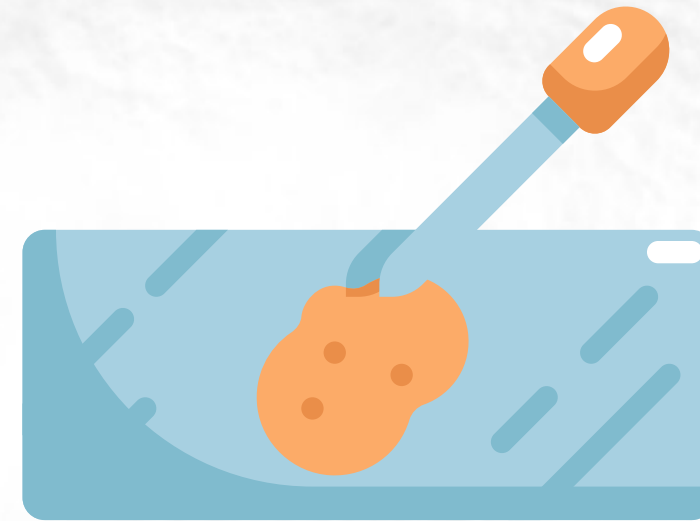
Hemoculture



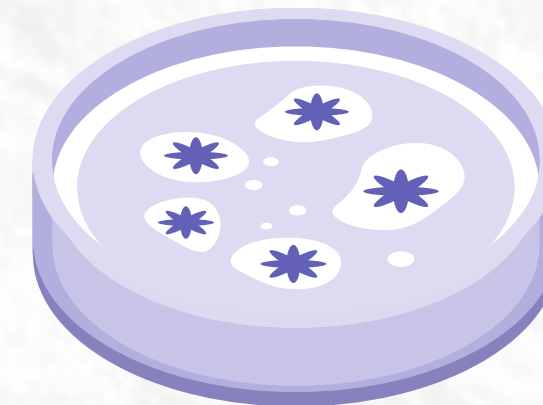
**Hemoculture
POSITIVE**



**Hemoculture
Negative**



**Gram stain
in 1 hour**



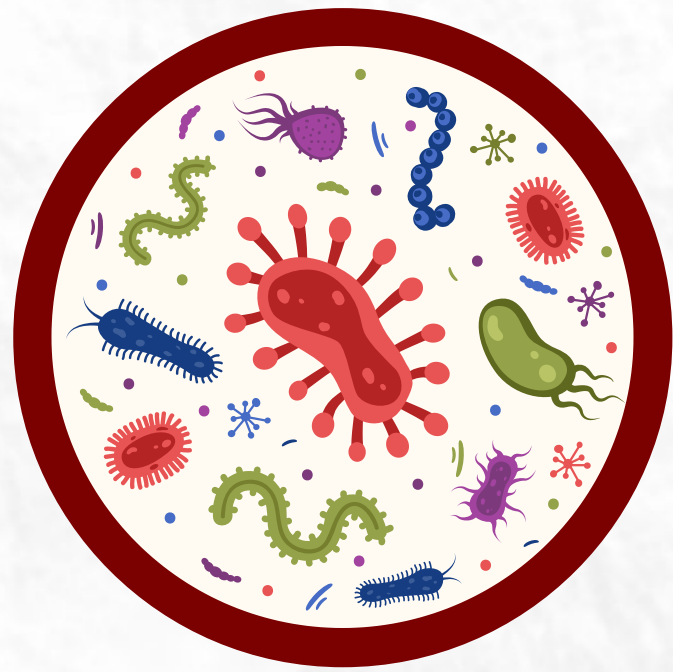
Subculture



**Identify &
Susceptibility**

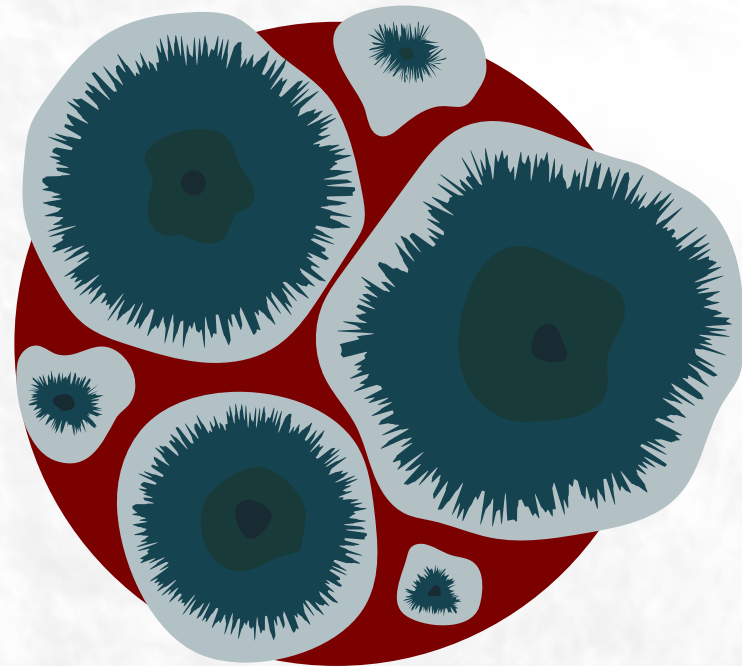
Hemoculture report

Bacteria



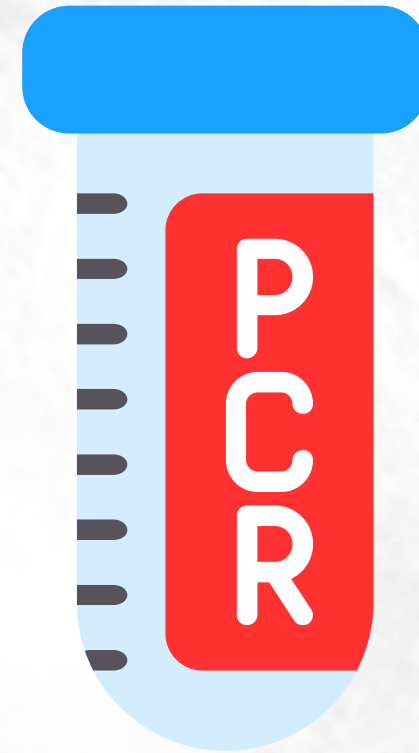
5 days

Fungus



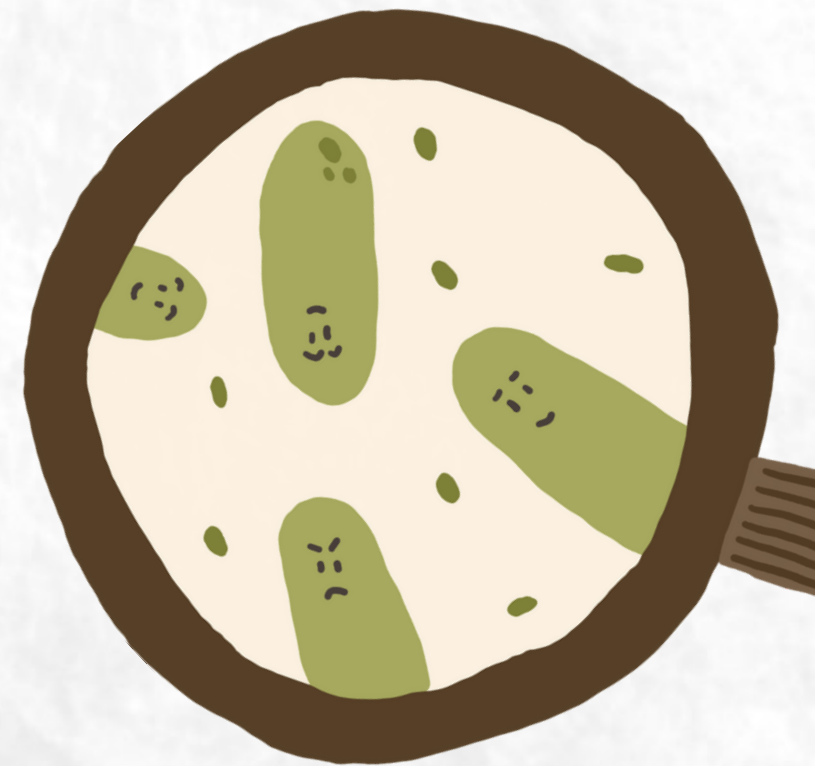
30 days

PCR for TB



5 days

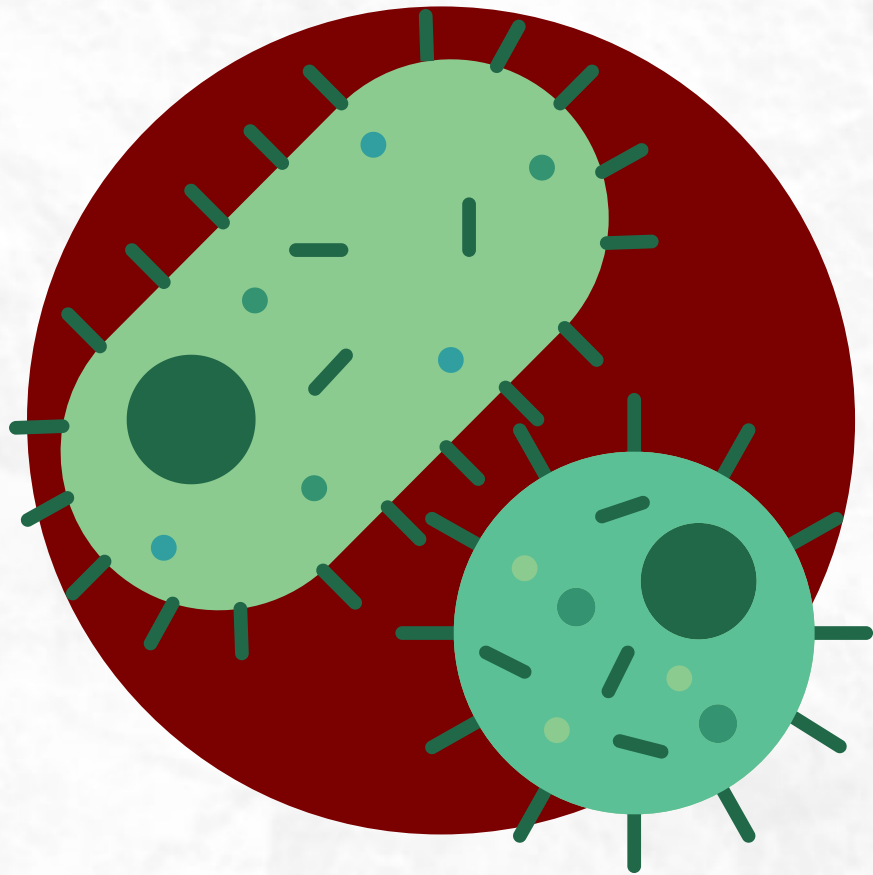
TB



42 days

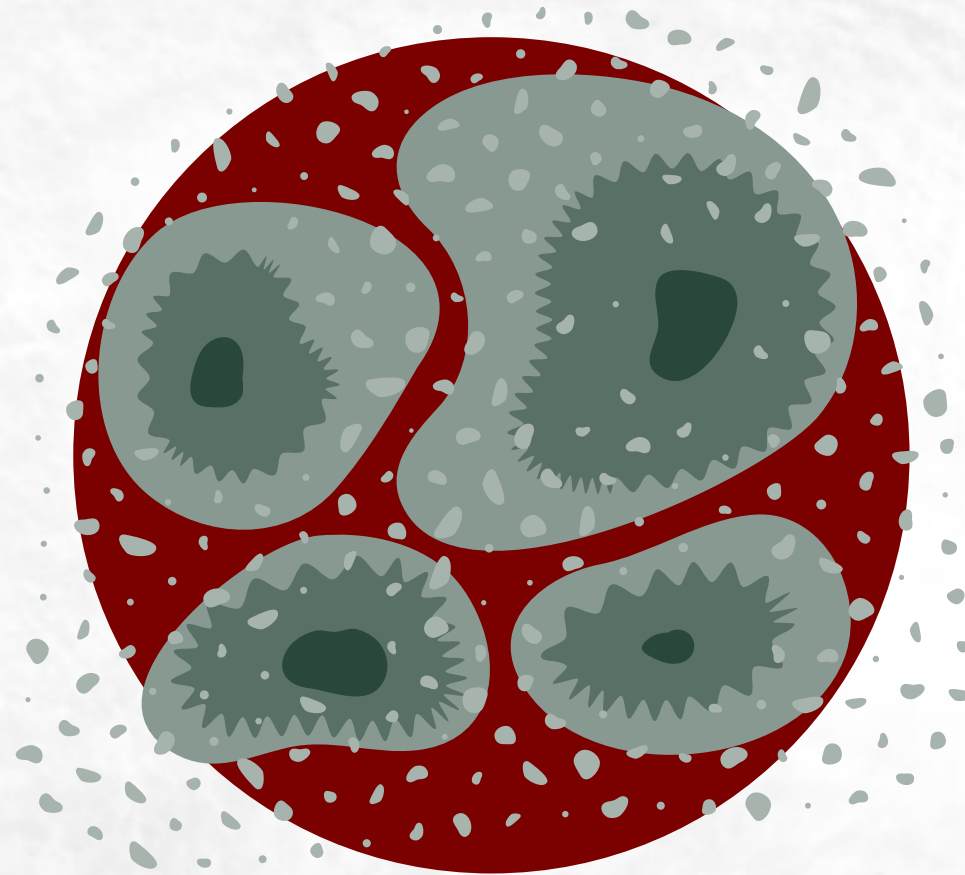
Culture report

**Aerobic bacteria
(BA,CA,MAC)**



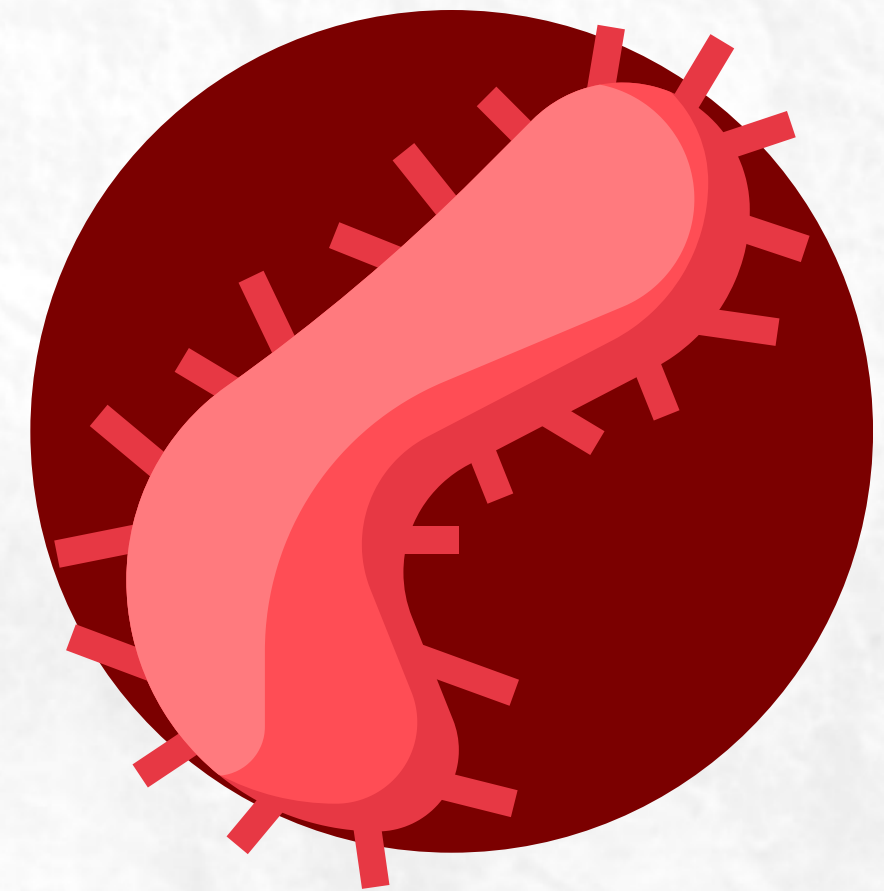
1-3 days

Fungus (SDA)



1-4 weeks

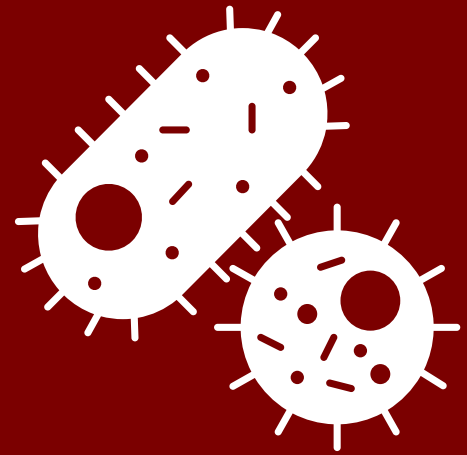
**Mycobacterium
(LJ media)**



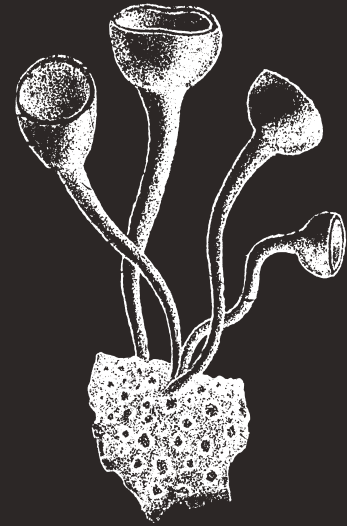
2-8 weeks

IDENTIFICATION

MALDI-TOF



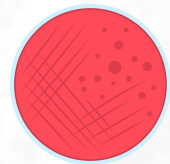
Bacteria



Yeast



Mycobacterium

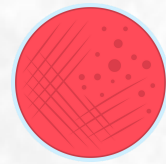


Culture

1-3 day



Identify

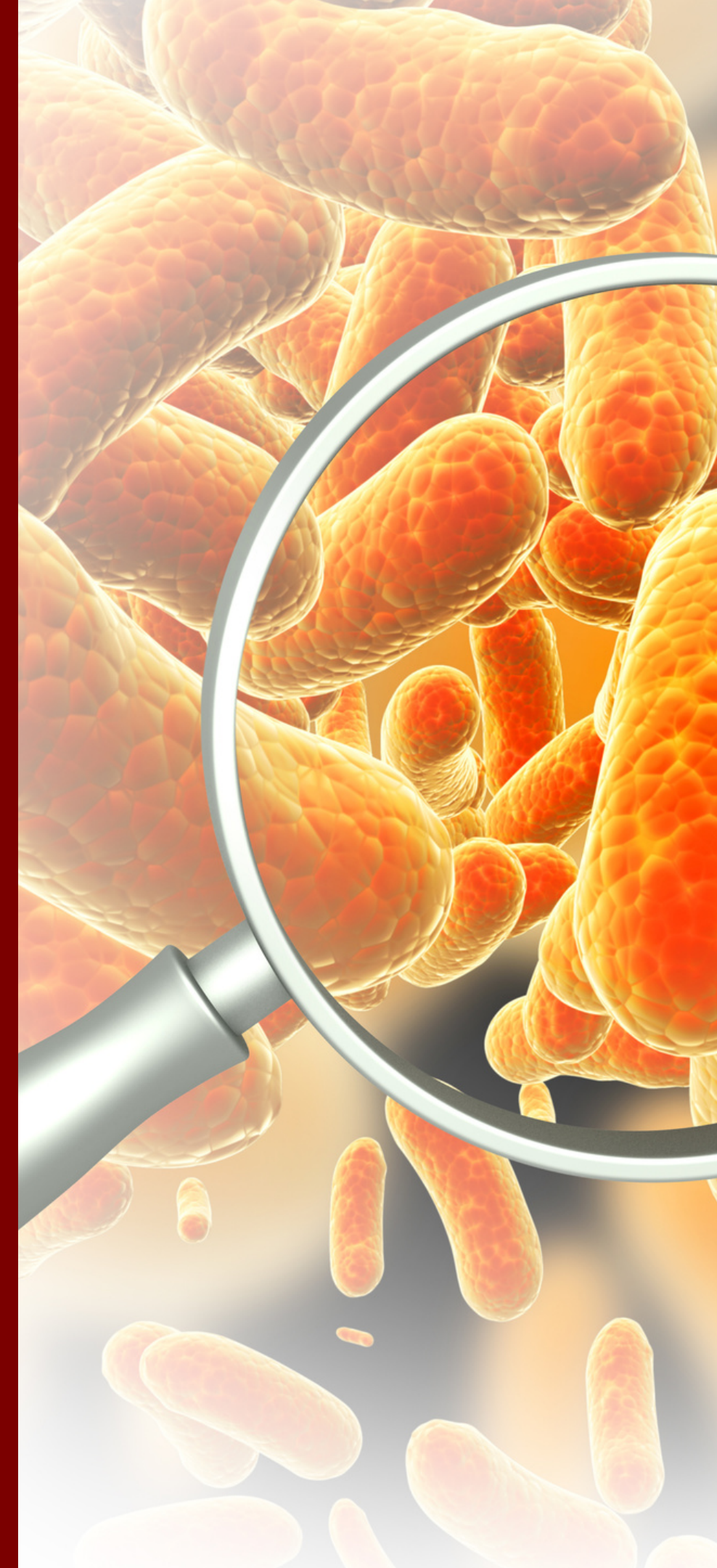


Culture

1-8
weeks

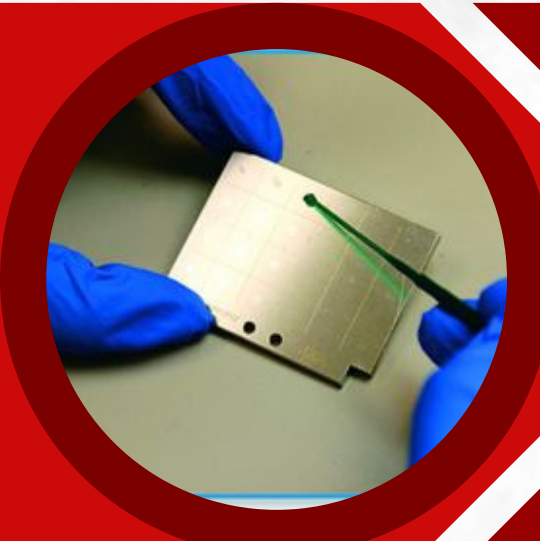


Identify

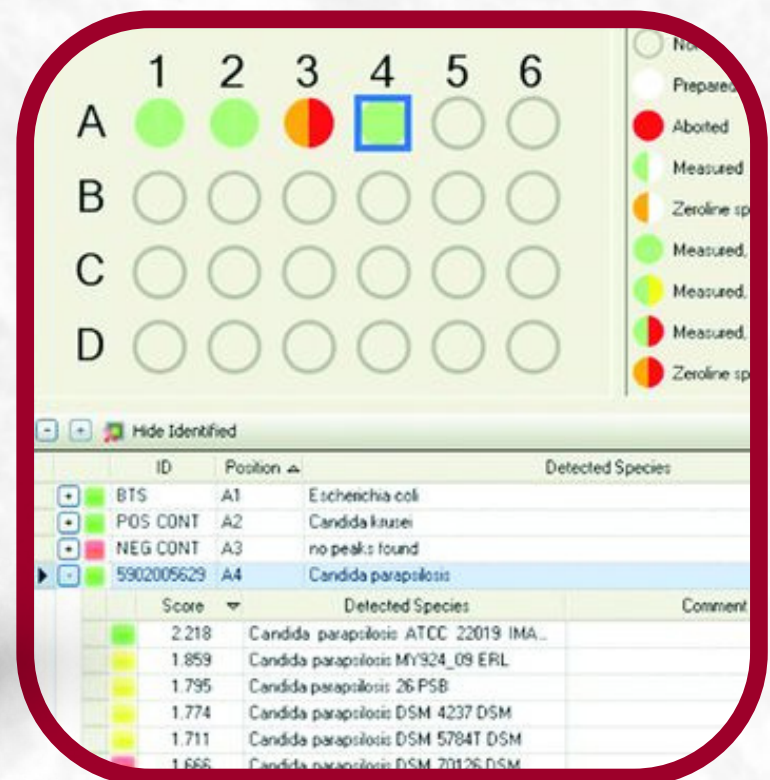


IDENTIFICATION

MALDI-TOF



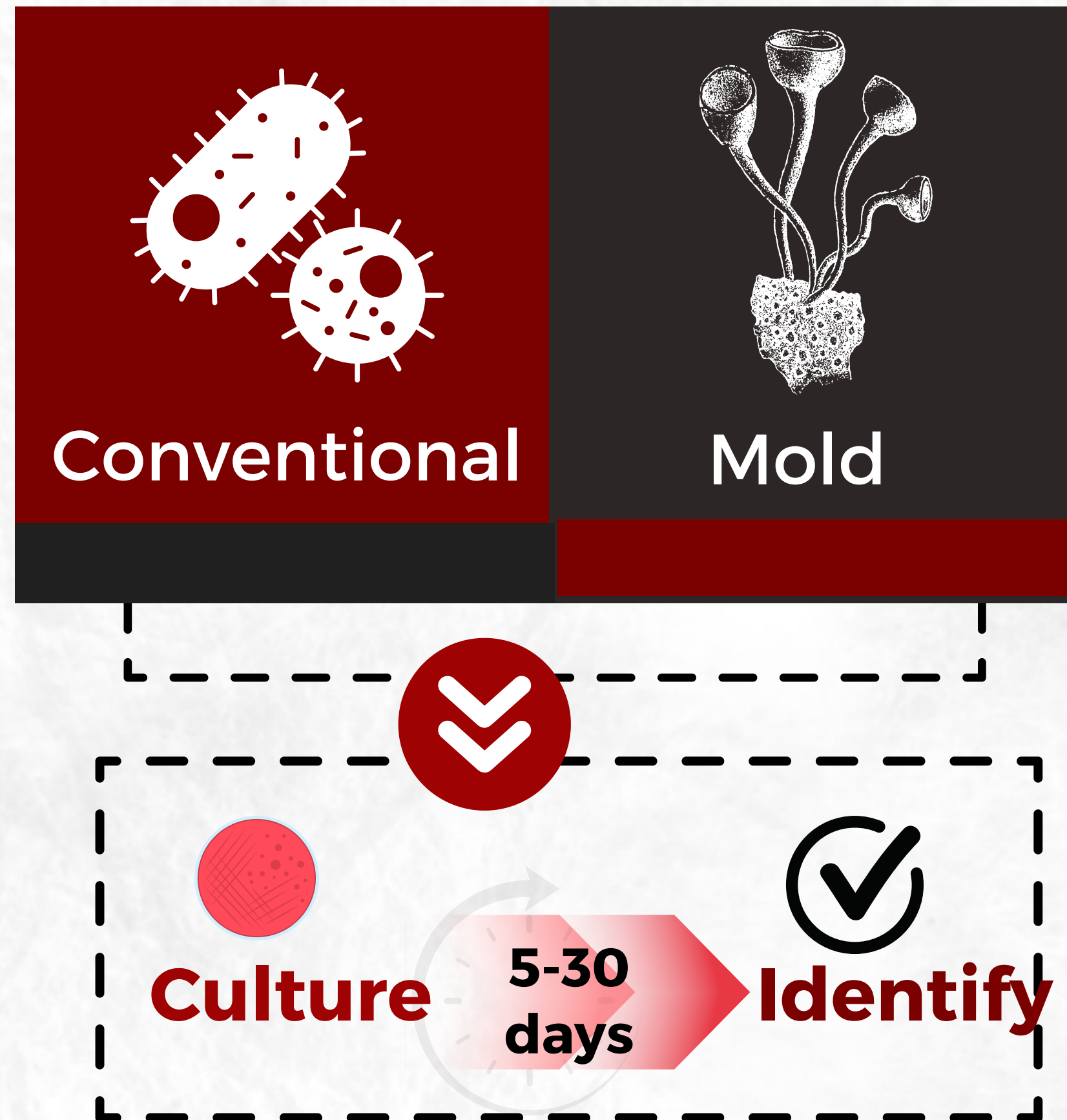
add
formic acid
and matrix
and dry



Mayo Clinic Laboratory Services Report				
MICROBIOLOGY				
Fungal Culture, Routine	FINAL	07/25/2012	14:42	MCR
CANDIDA PARAPSILOSIS Many				
Identified by mass spectrometry.				
MCR Mayo Clinic Dept. of Laboratory Medicine and Pathology, 200 First Street SW, Rochester, MN 55905 Franklin R. Cockerill, M.D., Lab Director				

IDENTIFICATION

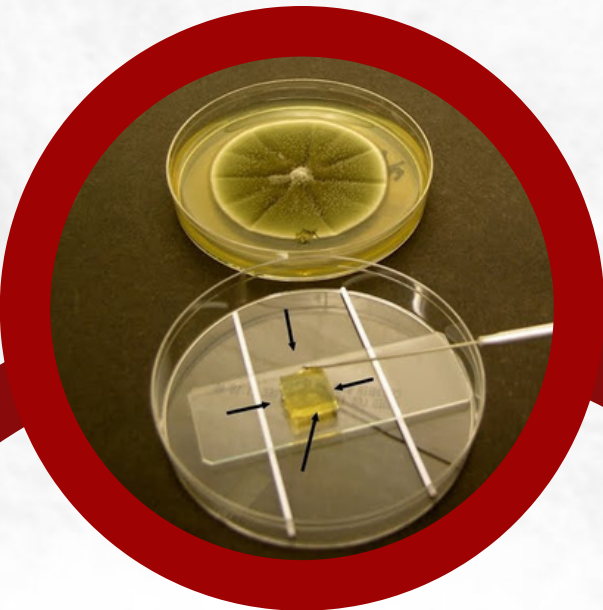
MALDI-TOF



IDENTIFICATION

MALDI-TOF

Fungus growth
(3-7 days)



Scotch Tape Technique:
Day 1



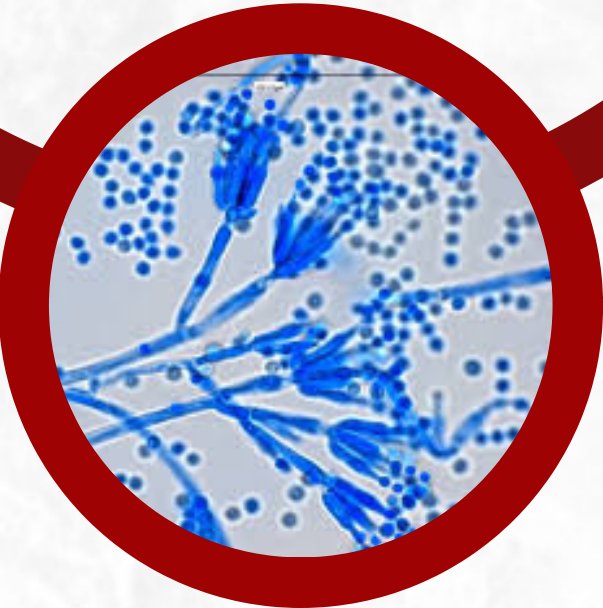
Fungus



Culture

5-30
days

Identify

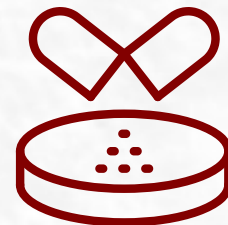


Slide Culture Technique:
Day 3,7,14

Susceptibility Testing



Bacteria



MIC sensitizer



Follow CLSI, EUCAST guideline

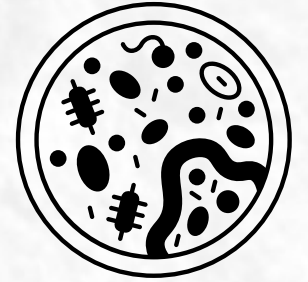


Report 1-2 days after isolate organism

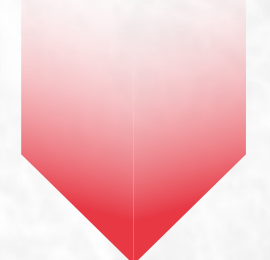


Disk diffusion: S/I/R

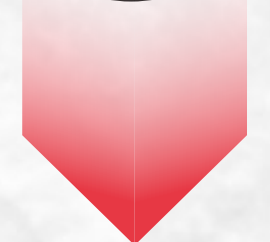
3-5 days



Culture



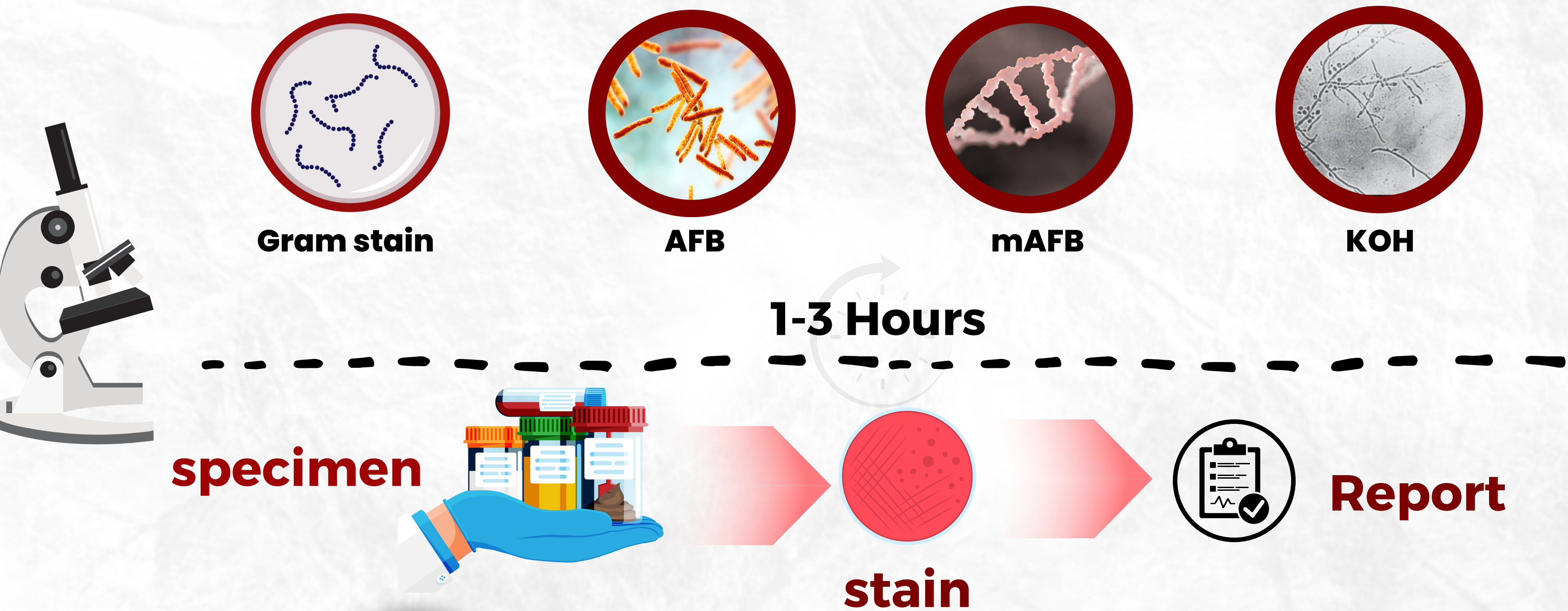
Identify & Susceptibility



Report



Microscopic Examination



THANK YOU

**SCAN
ME**

