

# SepTec

## Rapid Detection of Sepsis

### INTRODUCTION

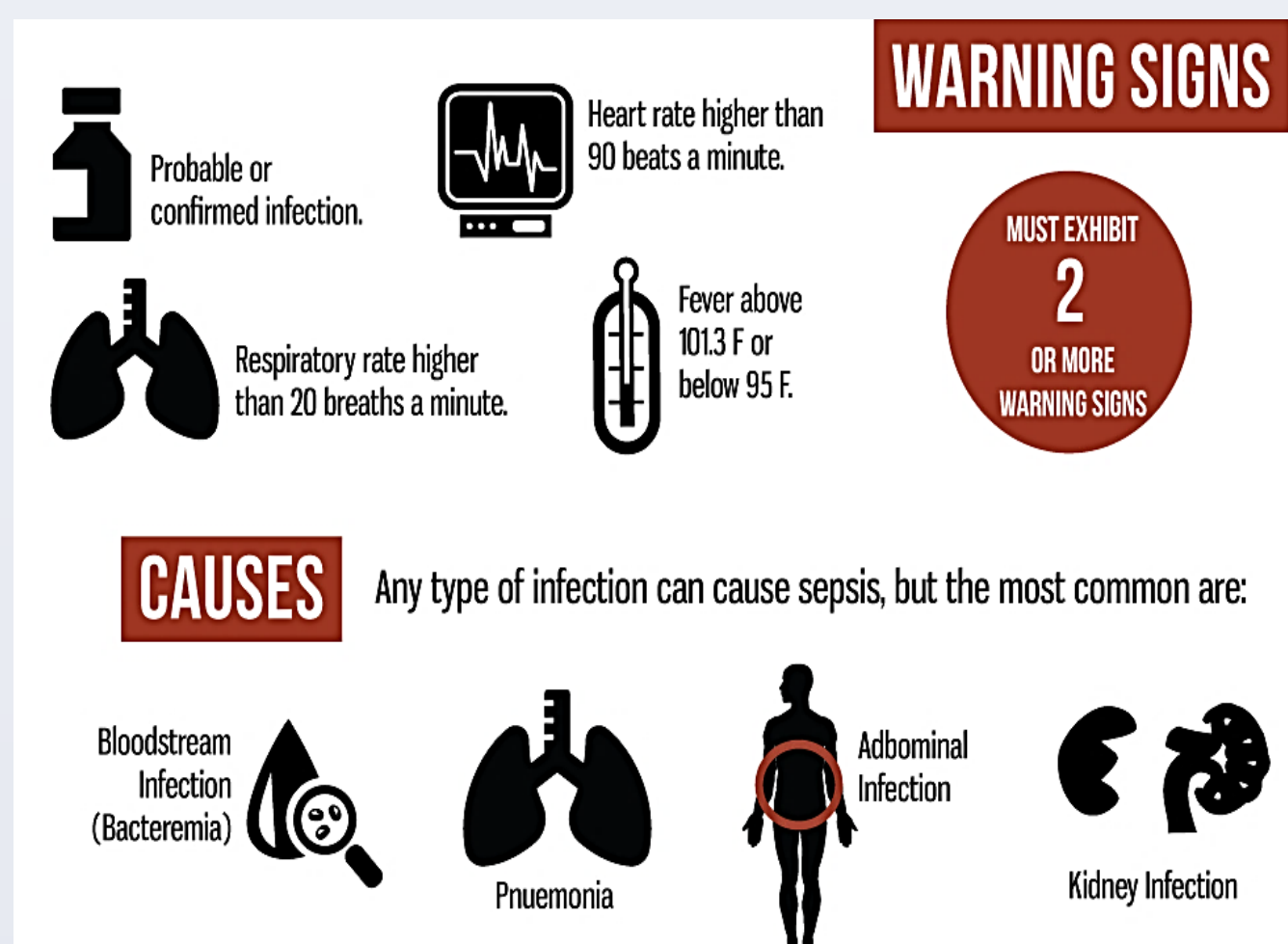
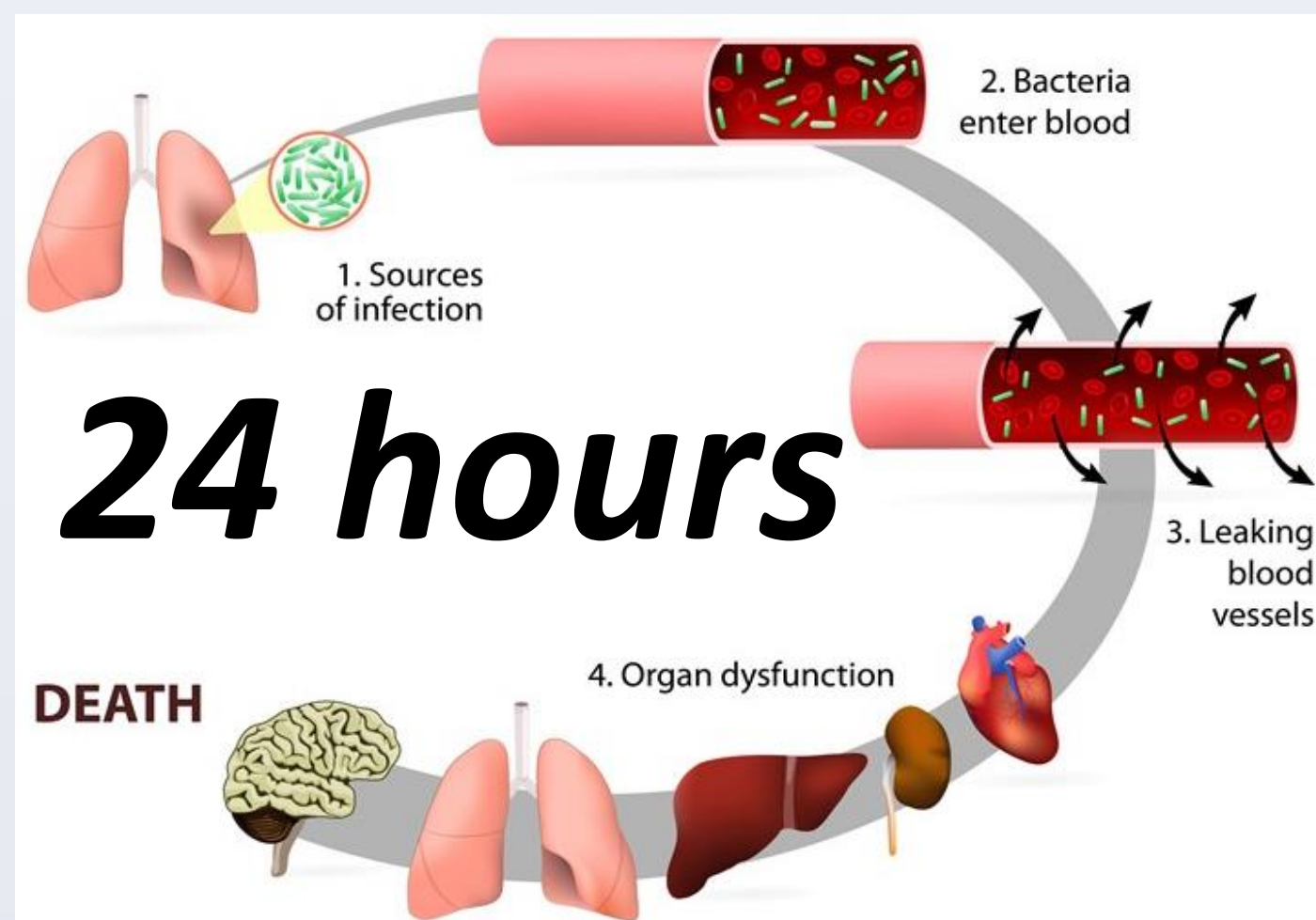
EVERY THREE  
HEARTBEATS

SOMEONE DIES  
OF SEPSIS



Each year Sepsis kills more people than  
**AIDS, breast cancer and prostate cancer**  
COMBINED.

50K  
40K  
30K



### THE PROBLEM?



**TIME!** Every hours delay raises mortality by 8%



Sepsis Diagnosis is Often  
Delayed:

**Clinical Symptoms**  
(raised temperature, increased pulse  
or breathing rate, white blood cell  
count, etc.) are  
**not specific**

**Clinical Diagnosis**  
of sepsis relies on pathogen  
detection, e.g., blood culture which  
can take up to  
**several days**

### Untimely, Uncertain Sepsis Diagnosis:

To reduce risk, doctors must start treatment without test results

### THE CONSEQUENCES:

Overuse of antibiotics and rising resistance (superbugs):

Antibiotic resistance costs the E.U. €1.5B  
each year and is a major contribution to  
hospital acquired infections (HAIs)



Longer Hospital Stays and more complications and procedures:

Length of stay for non-sepsis patient: 3-4 days  
Length of stay for sepsis patient: 7+ days



An ICU bed costs approx. €2,225 per day  
(even higher in HAI cases)

### THE SOLUTION!

**SepTec**

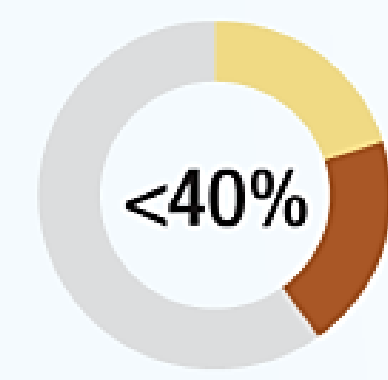
Speed Through Sensitivity

#### Today's Challenges of Sepsis Diagnosis

Traditional Sepsis Diagnosis:  
Pathogen Detection & Identification

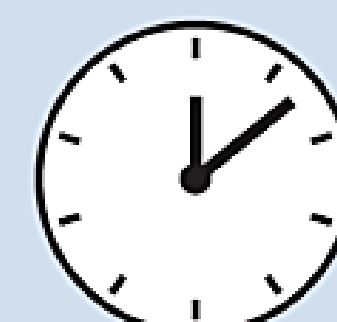


Time: Blood culture has  
been used to diagnose  
sepsis for over half a  
century, but is  
**Slow and inaccurate**  
As long as 48 hours



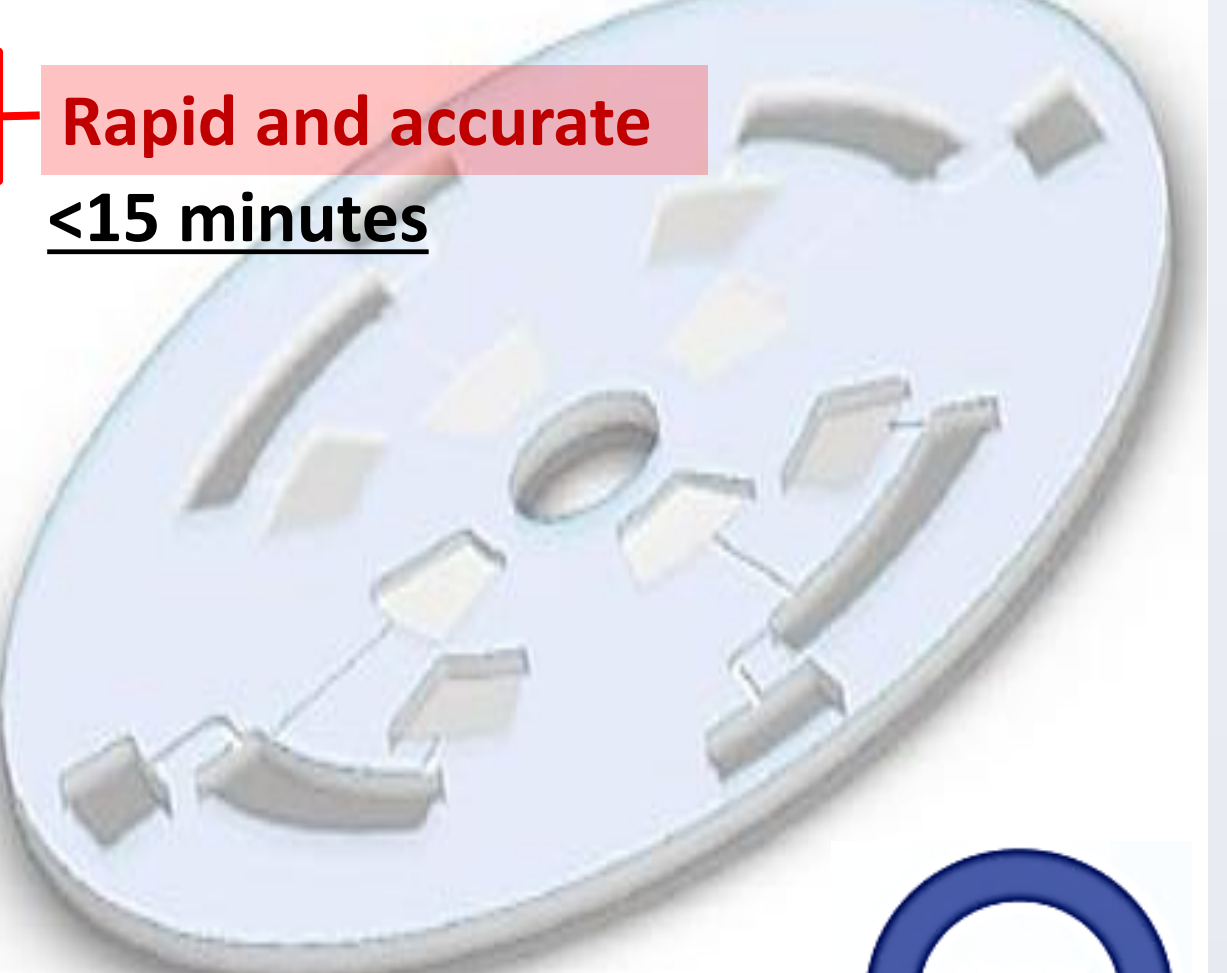
**RESULTS:** Informative  
results in 20% to 40%  
of cases

TIME IS  
CRITICAL



#### Future: How SepTec Can Aid Sepsis Diagnosis

Solution: Centrifugal Platform  
Pathogen Detection & Identification



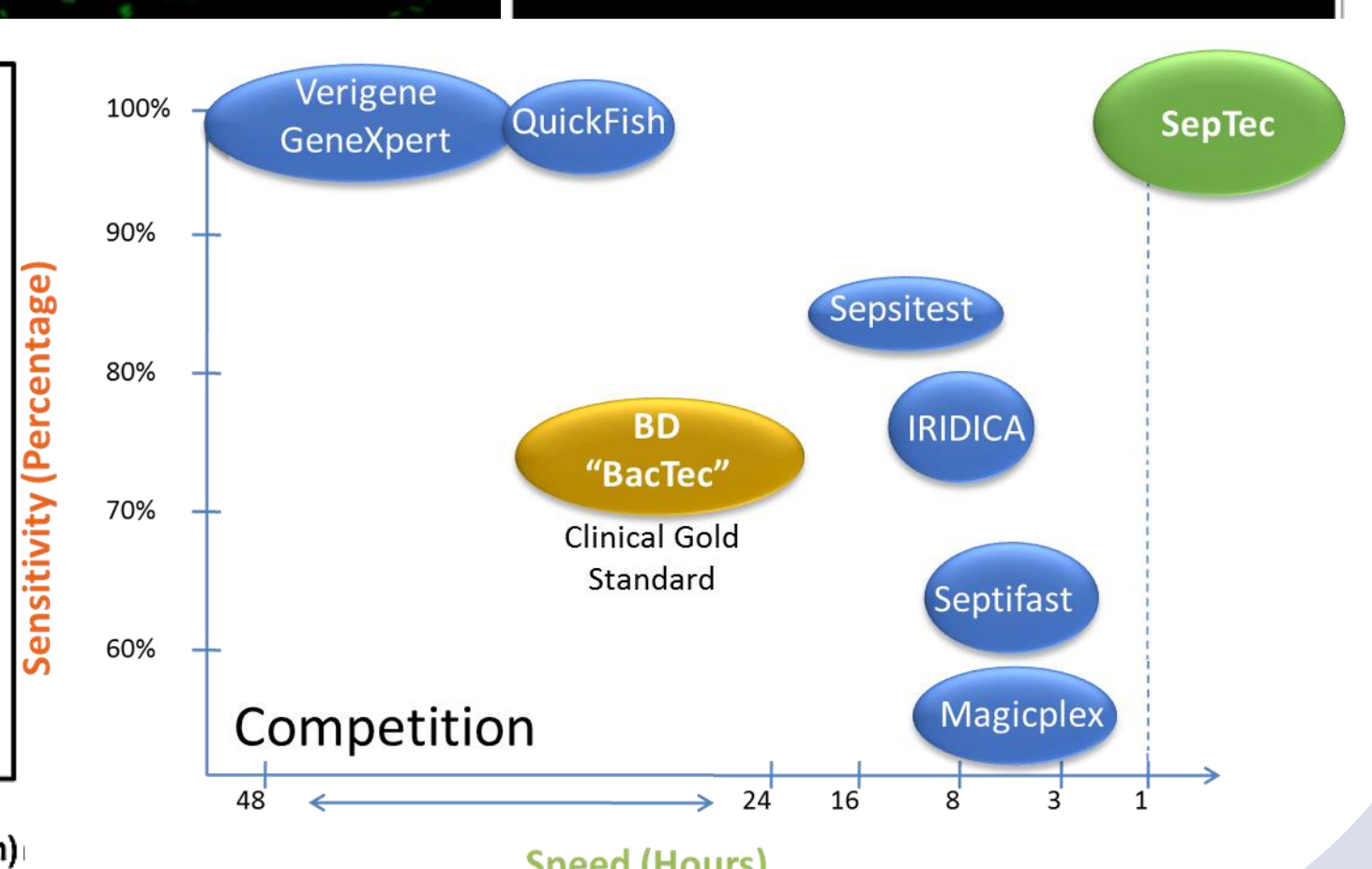
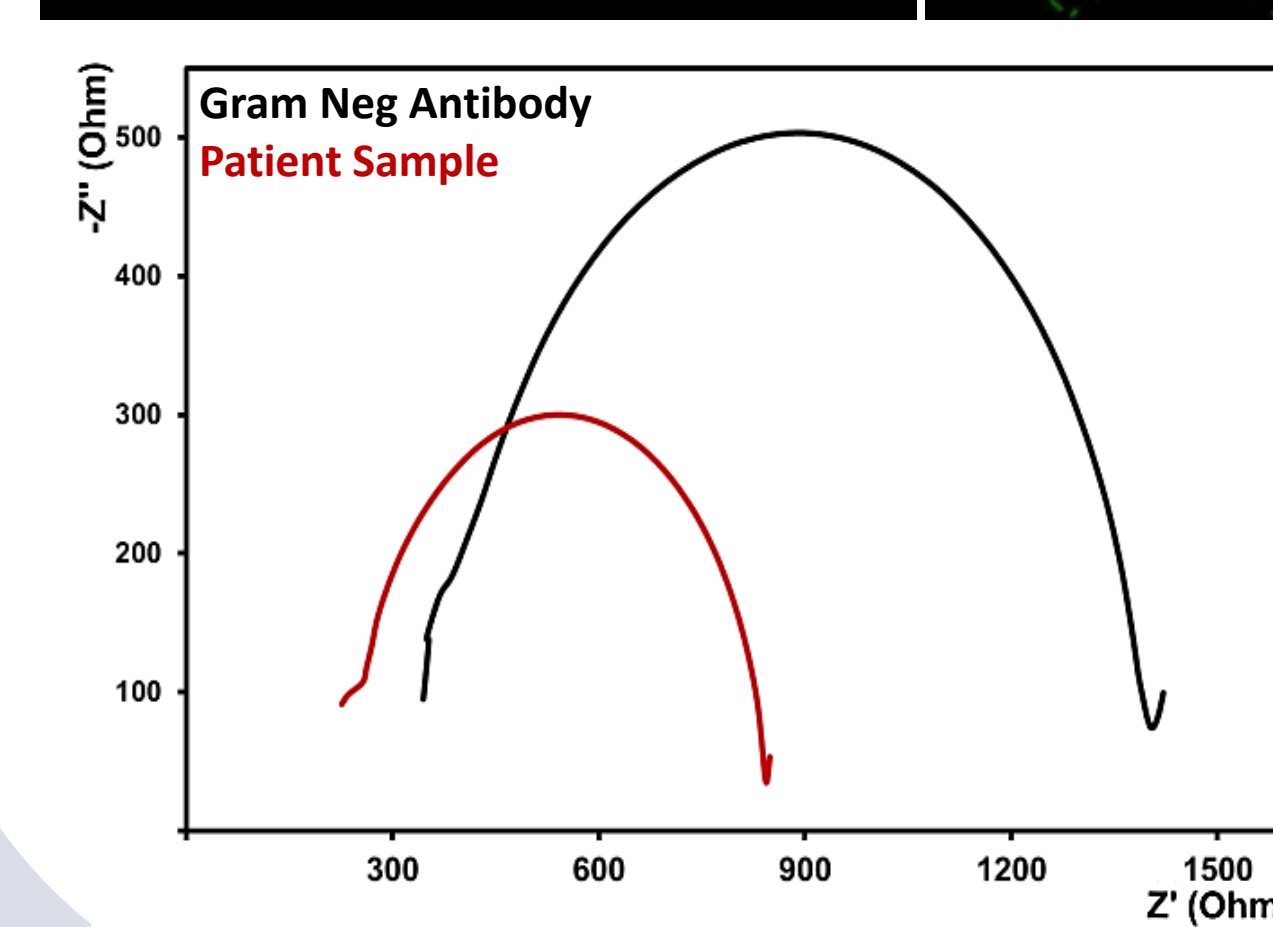
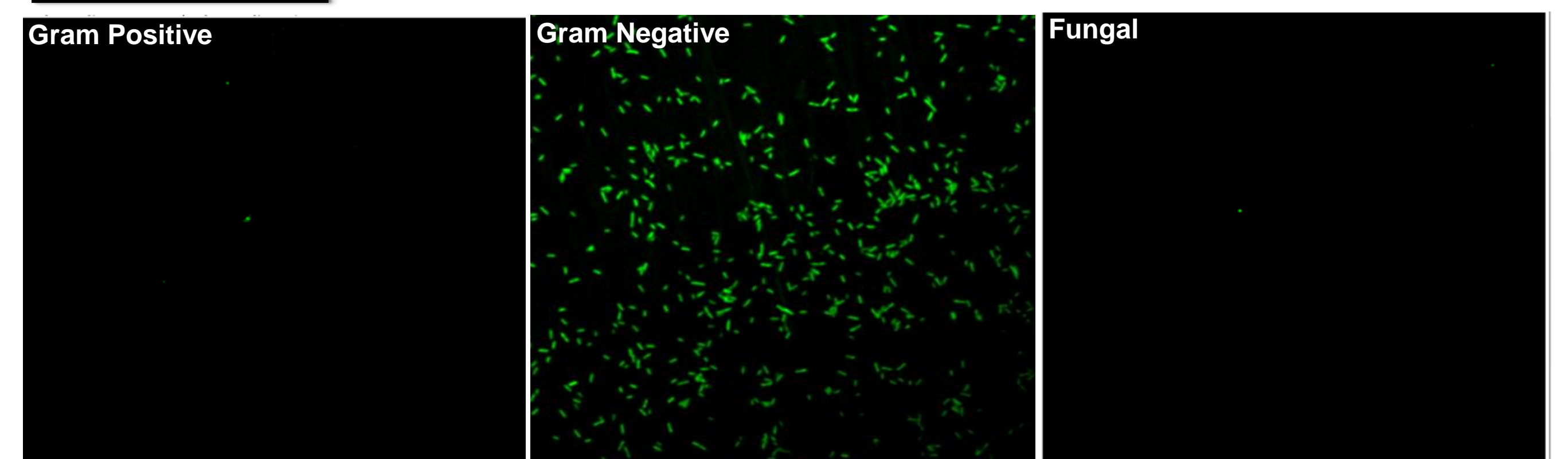
**Rapid and accurate**  
**<15 minutes**

**RESULTS:** Informative  
results in 100% of cases



Detection from 2mL Whole Patient Blood using 10 minute incubation time  
and 2 Minute Read Time.

- ✓ **Detect pathogens** in whole blood at a very low concentrations:  
**<10 CFU**
- ✓ Definitively identify if Gram positive, Gram negative or Fungal in  
**<15 minutes**



### THE TEAM