

# Portable Multi-pathogen DX and AST Solutions for Austere Environments

## Supports Warfighter Health and Bio-Threat Management

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Rugged, transportable, AC DC Battery



### Rapid Multi-Pathogen Detection

#### Human and Agriculture Disease & Bio-Threat

Panels in Test

<p><b>BIO-THREAT</b></p> <p><i>Y. pestis</i> <i>R. typhi</i> <i>F. tularensis</i> <i>Burkholderia</i> spp. Dengue Influenza A Chikungunya Lassa Fever CCHF</p>	<p><b>Wound/UTI</b></p> <p><i>E. coli</i> <i>Klebsiella</i> spp. <i>Enterobacter</i> spp. <i>Proteus</i> spp. <i>P. aeruginosa</i> <i>Enterococcus</i> spp. <i>A. baumannii</i> <i>S. saprophyticus</i> <i>S. lugdunensis</i> <i>S. aureus</i> <i>S. agalactiae</i></p>	<p><b>Invasive Fungal</b></p> <p><i>Aspergillus fumigatus</i> <i>Fusarium</i> spp. including <i>F. verticilloides</i> <i>F. facifrome</i> <i>F. solani</i> <i>F. oxysporum</i> <i>Scedosporium</i> spp. including <i>S. prolificans</i> <i>S. apiospermum</i> Order Mucorales including <i>M. circinelloides</i> <i>M. irregularis</i> <i>R. oryzae</i> <i>R. arrhizus</i> <i>R. microsporus</i> <i>R. pusillus</i></p>	<p><b>Food Security</b></p> <p>Aflatoxin producers: <i>Aspergillus flavus</i> <i>Aspergillus parasiticus</i></p> <p><i>Aeromonas hydrophila</i> <i>Edwardsiella ictaluri</i> <i>Flavobacterium columnare</i></p>
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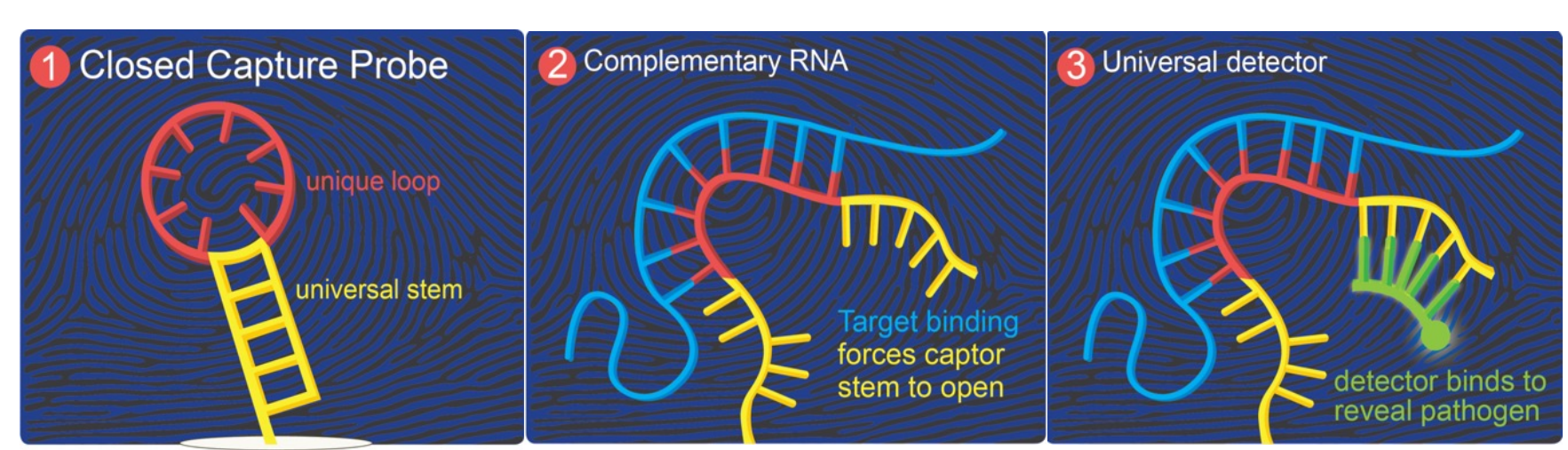


30% of battlefield wounds lead to infections which then becomes the Number 1 cause of loss of life and limb. [Military Infectious Disease Program 2019]

**Results in 1 Hour**  
Direct Sample to Answer  
Blood, Urine, Swab, Synovial



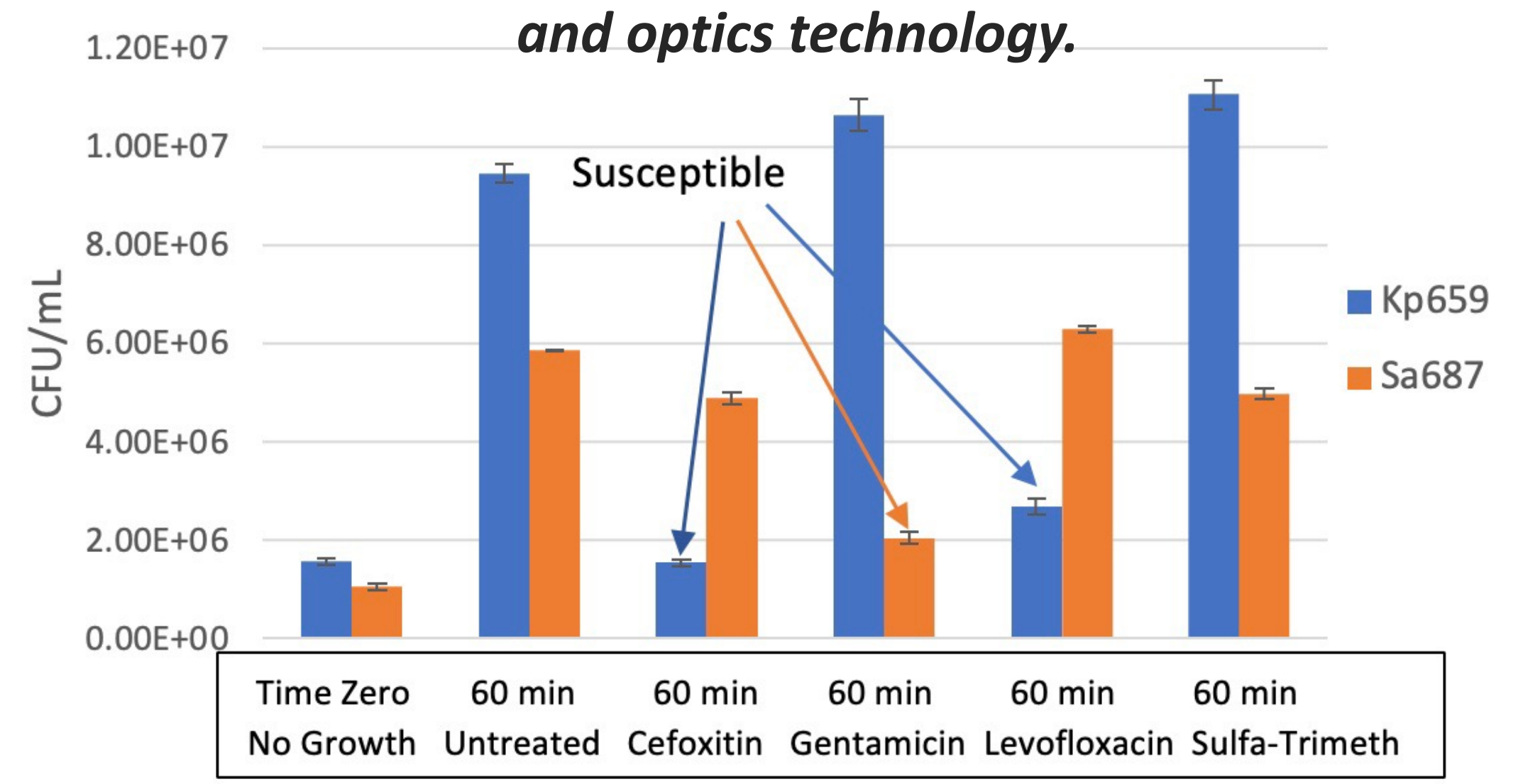
Table-Top and Handheld  
Cartridge provides Sample Prep and Genetic Signature  
in less than 1 hour – No Refrigeration



ID based on Direct RNA Hybridization  
And One-Step Amplification for Low Level Viruses

### Rapid Multi-Pathogen AST

Mixed pathogen sample of *K. pneumoniae* and *S. aureus*. AST results reported after 60 minutes based on cytometry, labelling and optics technology.



Pathogen ID		
Pathogen	Detected	Quantitative Range, CFU/mL
<i>E. coli</i>	Y	100,000 < 500,000
<i>Klebsiella</i> spp	N	
<i>Enterobacter</i> spp	N	
<i>Proteus</i> spp	N	
<i>Pseudo aeruginosa</i>	N	
<i>Enterococcus</i> spp	Y	10,000 < 50,000
<i>Streptococcus agalactiae</i>	N	
<i>Staphylococcus aureus</i>	N	
<i>Staphylococcus lug</i>	N	
<i>Staphylococcus sap</i>	N	

Antibiotic Susceptibility	
Pathogen	Susceptibility
<i>E. coli</i>	Y
<b>Antibiotic</b>	<b>Susceptibility</b>
Nitrofurantoin	NS
Ampicillin	NS
Cefazoline	S
Ceftriaxone	S
Sulfa-Trimeth.	NS
Levofloxacin	NS



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