

 HaystackAnalytics

Reimagining Genomics

CORE TEAM: Diverse Expertise to Solve A Real Problem



Dr. Anirvan Chatterjee
Co-founder and CEO



Prof. Kiran Kondabagil
Co-founder and CSM



Gaurav Srivastava
Co-founder and COO



Priyanku Konar
CTO



30+ Years of Cumulative Research Experience from Ivy League and Top World Universities

100+ High Impact Research Publications

2000+ Research Citations



15+ Years of Infectious Genomics, AMR and Virus Discovery Experience as a researcher

25+ Years in Evolutionary Biology, Protein Interactions & Genomics

Ex-COO in a Unicorn
20+ cities operations
500+ team managed
\$20M+ fund raised
\$100 M + fund managed



15+ years in Finance, Technology & 0 to 1 growth journeys as an entrepreneur

30+ Keystone enterprise projects across Travel, healthcare & BFSI
Mentored & built agile teams



15+ years of experience in Software Design and Architecture

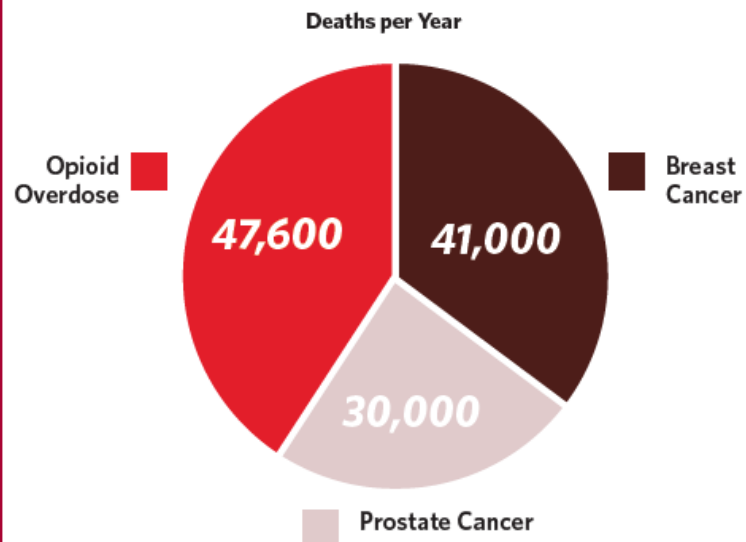
Infections: The Greatest Threat To Human Health

SEPSIS: 270,000 Deaths per Year

(Source: Sepsis Alliance. Numbers are approximate, as of Sept. 2019.)

The Leading Cause of Death in the U.S.

Each year in the United States, sepsis causes more deaths than opioids, breast cancer, and prostate cancer combined. Learn the signs and symptoms – it could save a life.



30 New Infectious Agents Have Emerged In The Last 35 Years

Globally,
14 billion infections each year
49 million critical infections
11 million deaths due to critical infections

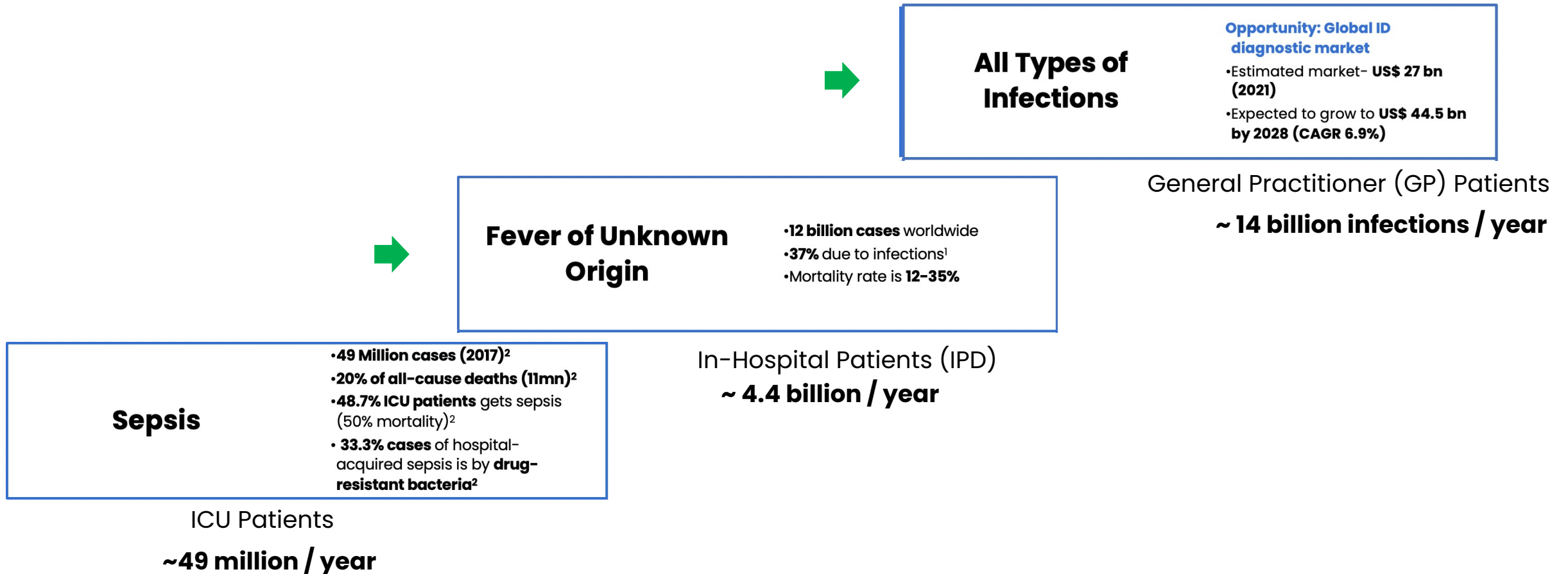
By 2050,
50 million deaths due to AMR
USD 100 trillion: Cost of AMR

*AMR: antimicrobial resistance

COVID-19 Exposed The A Global Health System Ill Prepared for Handling Infectious Disease

Even Pre-COVID-19, It Was Known That Only 37% of Sepsis Cases Were Rightly Diagnosed In The First 4 Days Of Entering The Healthcare System

Solve a Real, Really Big Problem



Current Day Diagnostics Don't Work

Genome Sequencing

Solves for detection of **1200+ pathogens** & provides **comprehensive ARGs** in the **least turnaround time (TAT)** in **a Single Test**

But Current Genomics Can Not Scale

Microbiological Tests

Not Scalable
Limited by '**Culture-ability**'

TAT
1 day presumptive
2-10 days confirmed

Molecular Tests

Very Limited Expansion
Multiple Panels Required

TAT
4 hrs

Haystack's Innovation: Distributed Scalable Genomics



- Small footprint
- 1/10th Capex of sequencing
- Easy to set-up
- Easy to implement

Universal-ID Platform With Nanopore Sequencer: A \$4K Deployment, Upgrading PCR Labs To Genomics



Nanopore & Haystack U-ID Platform Makes The Lab Genomics Ready

One Time CapEx: \$4k



Our Kit Makes Genomics Workflow Fit Into The Current Molecular (PCR) Workflow.

OpEx: \$50-60 per test



Our Software Makes Clinical Genomic Reporting A One Click Outcome

Universal ID

We Would be Scaling in 2022

1st deployment done @ Aster Hospital Calicut (10th June 22)

- > Enabling Screening for All Bacteria, Fungi & Parasite Within 12 Hours Making U-ID The Best Solution For Sepsis
- > AMR Reporting for Enabling Antibiotic Stewardship & Right Treatment

Final Cost to Patients (via Partners): <\$100 per Test

The Universal ID Test: A Genomic Solution

A direct-from-sample, single-test genomic solution for detecting pathogens and antimicrobial resistance

Direct-from-sample

TAT of 12 hrs

On-site

1200+ pathogens

**Antimicrobial
susceptibility**

Preventing every Avoidable Epidemic

Antimicrobial Resistance Summary

Antibiotic Class	Antibiotics	Gene	Reads
Betalactamase	Penicillin Cephalosporin Monobactam Carbapenem	blaCTX-M	281

Pathogens Summary

Pathogen Detected	No of Reads	Proportion of Reads
Escherichia coli	1164	93.12

Sample Summary

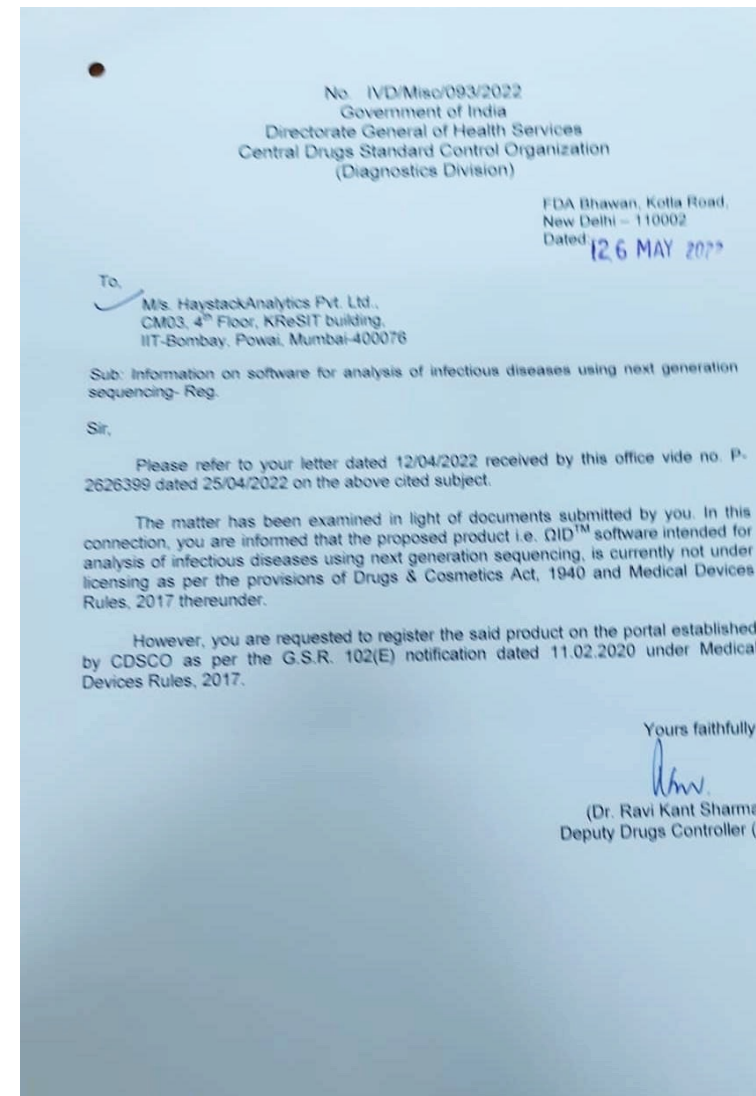
Sample ID	Sample Type	Client ID	Sample Source
Sample37	DNA	Haystack	Culture

Genome Sequence Summary

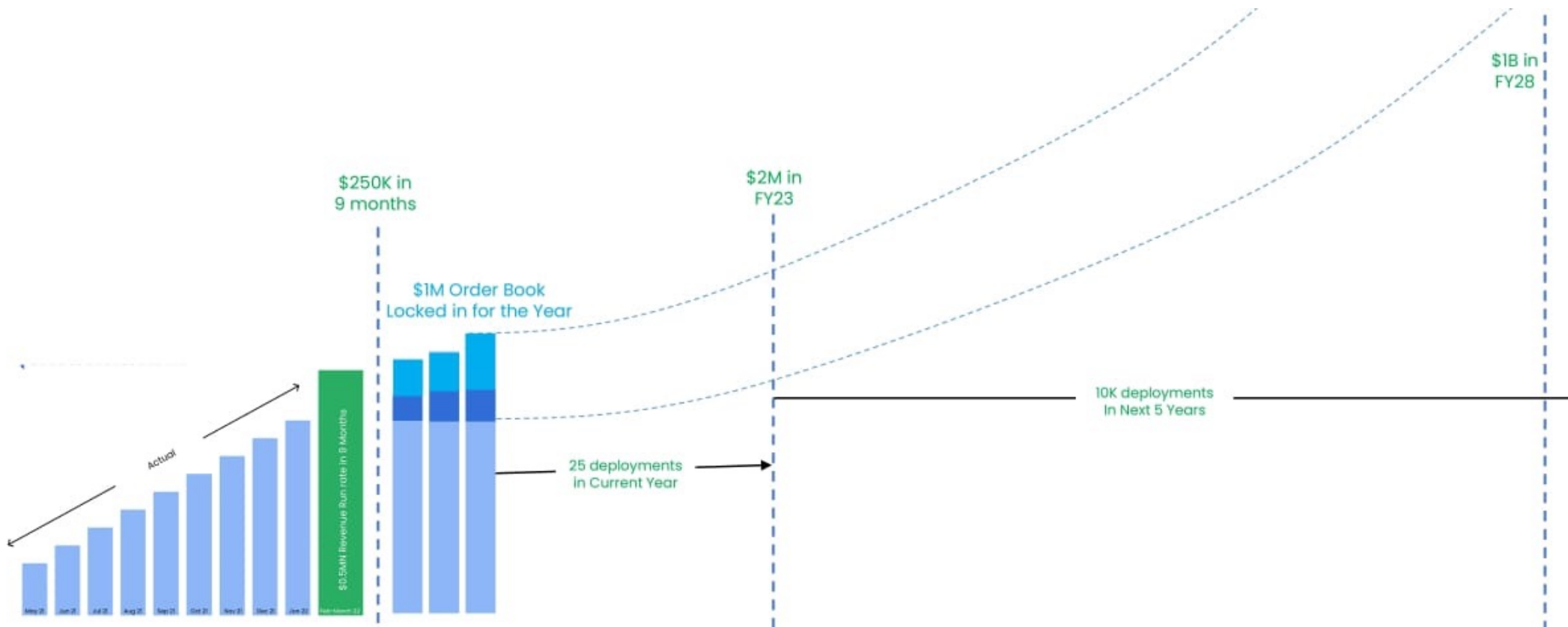
Sequencer	Run on	Device	FlowCell	Library Date	Library Kit
MinION	25-Jun-2022	MN35383	FAT53212	25-Jun-2022	SQK-LSK109

Genome Analysis Summary

Analysis Date	Application Run By	Barcode ID	Filtered Reads	Test ID	Total Reads
04-Jul-2022	HAPL	barcode53	1259	OmegalDv1.0.0-master-76a7762	1700



Revenue & Projections



Universal-ID Unlocks the Opportunity To Make Genomics Accessible To “Every Lab”

Market Reachouts
started in June 2021
With Our U-DST product for TB

Partnerships in 9 months



July 21 to June 22

Pilot of Universal ID started
from June 2022

And Now Expanding Out Of India



SEA
Middle East

July 22 to June 23

Scaling of Universal ID



US & Europe

Post July 23