

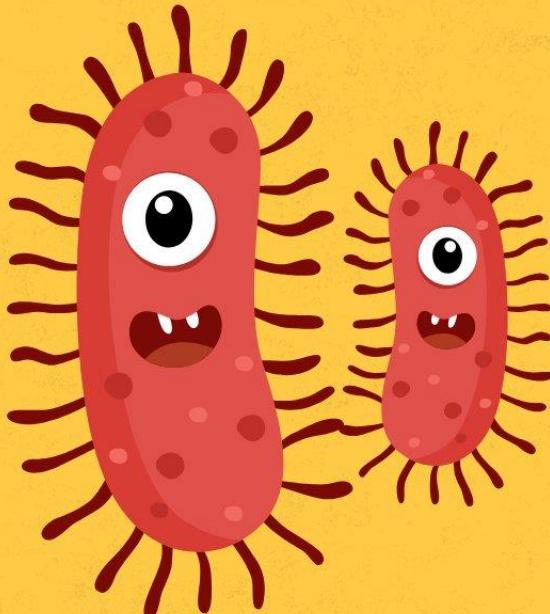


Government of India
Ministry of Science & Technology
Department of Biotechnology

ONE DAY ONE GENOME

Enterobacter strain

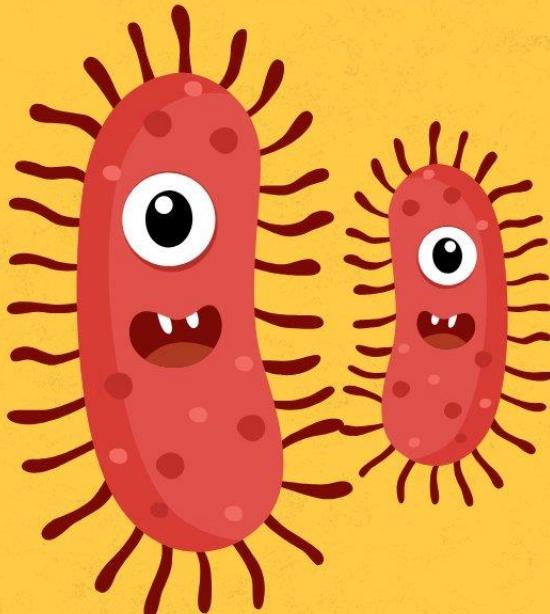
SWIPE →



ONE DAY ONE GENOME

Enterobacter strain

SWIPE →



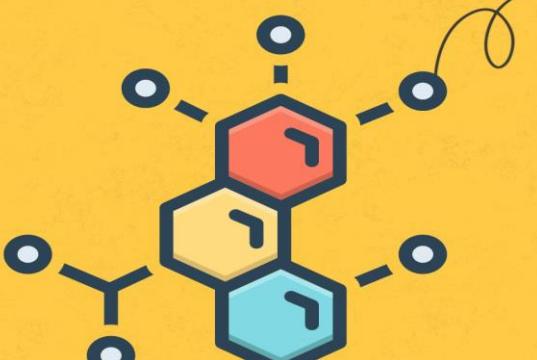
Isolated from
freshwater
PUFFERFISH

1



HELPS IN
DEGRADATION
Natural antioxidant

2



PLAYS Crucial
Role in **DIGESTION**

3

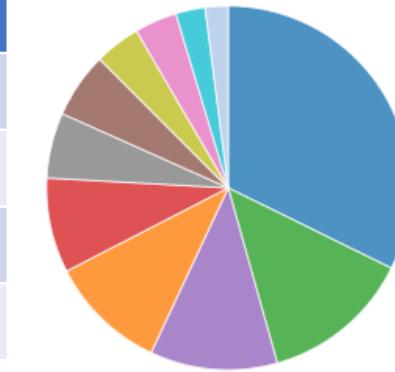
- ✓ Nutrient absorption
- ✓ Immune system development
- ✓ Overall physiological balance



Quality of Genome Assembly and Annotation:Results from indigenously developed **BHARAT** analysis pipeline:(**Bacterial Hybrid genome Assembly and Rapid Annotation Toolset**)

Table 1: Assembly Details	
Contigs	24
GC Content	55.89
Contig L50	3
Genome length	4,452,943 bp

Table 2: Annotated Genome Features	
CDS	4,194
tRNA	75
Repeat Regions	0
rRNA	3

**Subsystem Analysis**

Subsystem (Subsystems, Genes)
METABOLISM (111, 927)
PROTEIN PROCESSING (46, 244)
STRESS RESPONSE, DEFENSE, VIRULENCE (39, 188)
ENERGY (36, 305)
MEMBRANE TRANSPORT (29, 189)
DNA PROCESSING (20, 104)
CELLULAR PROCESSES (20, 143)
RNA PROCESSING (14, 76)
CELL ENVELOPE (13, 109)
MISCELLANEOUS (9, 44)
REGULATION AND CELL SIGNALING (7, 41)

Table 3: Antimicrobial Resistance Genes

Antibiotic target in susceptible species	Alr, Ddl, dxr, EF-G, EF-Tu, folA, Dfr, folP, gyrA, gyrB, inhA, fabI, Iso-tRNA, kasA, MurA, rho, rpoB, rpoC, S10p, S12p
Efflux pump conferring antibiotic resistance	AcrAB-TolC, AcrAD-TolC, AcrEF-TolC , AcrZ, EmrAB-TolC, EmrD, MacA, MacB, MdfA/Cmr, MdtABC-TolC, MdtL, SugE, TolC/OpmH
Protein altering cell wall charge conferring antibiotic resistance	GdpD, PgsA

Genome Assembly