



Government of India
Ministry of Science & Technology
Department of Biotechnology

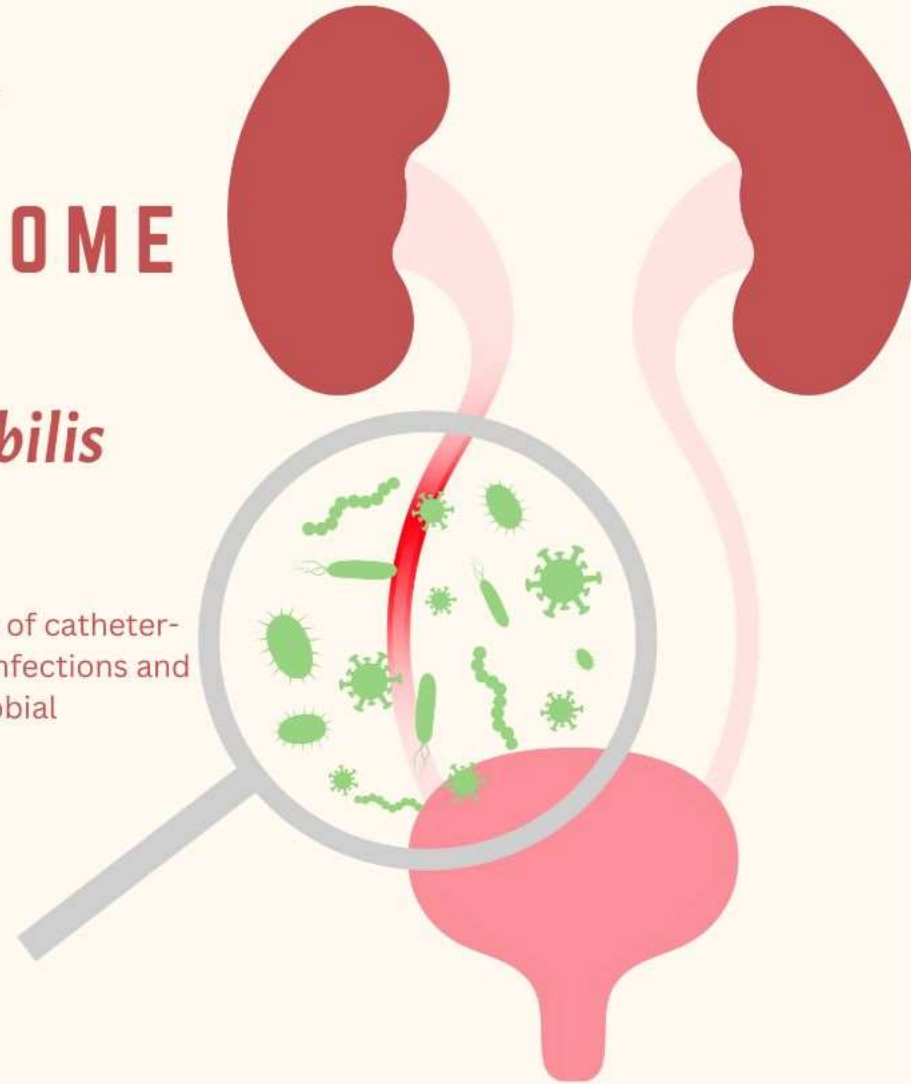
सत्यमेव जयते



ONE DAY ONE GENOME

Proteus mirabilis

The starin is known cause of catheter-associated urinary tract infections and carries multiple antimicrobial resistance genes



Quality of Genome Assembly and Annotation:

Results from indigenously developed **BHARAT** analysis pipeline: (**B**acterial **H**ybrid genome **A**ssembly and **R**apid **A**nnotation **T**oolset)

Table 1: Assembly Details	
Contigs	48
GC Content	38.43
Contig L50	6
Genome length	4,932,422 bp
Contig N50	224,663

Table 2: Annotated Genome Features	
CDS	8,519
tRNA	110
Repeat Regions	0
rRNA	25

Subsystem Analysis

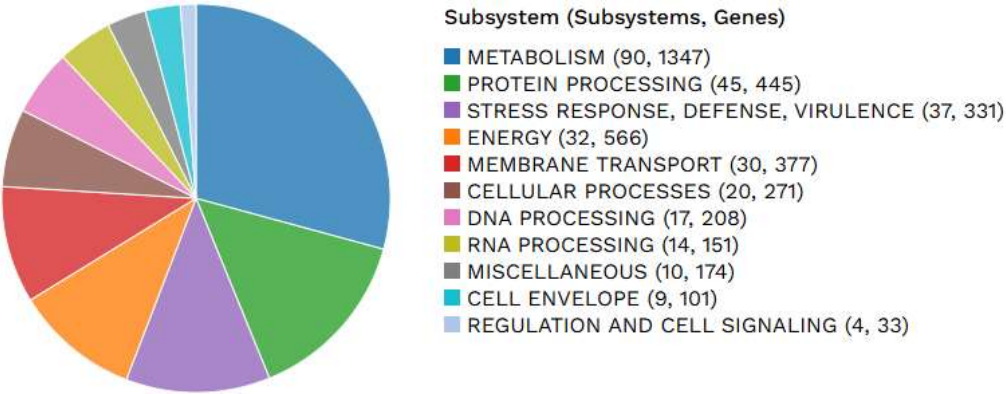


Table 3: Antimicrobial Resistance Genes	
AMR Mechanism	Genes
Antibiotic inactivation enzyme	BlaZ family, CatA1/CatA4 family
Antibiotic target protection protein	BcrC
Antibiotic target in susceptible species	Alr, Ddl, dxr, EF-G, EF-Tu, folA, Dfr, folP, gyrA, gyrB, inhA, fabI, Iso-tRNA, kasA, MurA, parC, rho, rpoB, rpoC, S10p, S12p
Protein altering cell wall charge conferring antibiotic resistance	GdpD, PgsA
Efflux pump conferring antibiotic resistance	AcrAB-TolC, AcrZ, EmrAB-TolC, MacA, MacB, MdtABC-TolC, MdtL, MexAB-OprM, MexHI-OpmD, SugE, Tet(J), TolC/OpmH
Regulator modulating expression of antibiotic resistance genes	AcrAB-TolC, EmrAB-TolC, H-NS, OxyR

Genome Assembly

