



Government of India
Ministry of Science & Technology
Department of Biotechnology

ONE DAY ONE GENOME

*Pseudomonas
lalkuanensis*



BRIC a DBT Organization NCCS
NATIONAL CENTRE FOR CELL SCIENCE

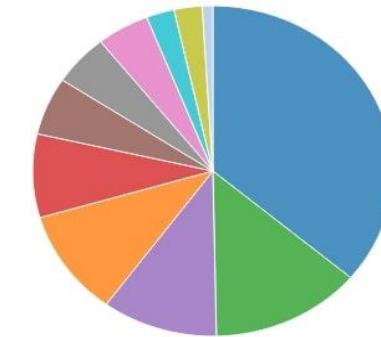


Breaks down **E-waste** pollutants, and features a versatile enzyme suite for stress response

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	1
GC Content	64.24
Contig L50	1
Genome length	6,056,953 bp
Contig N50	6,056,953

Table 2: Annotated Genome Features	
CDS	5,569
tRNA	73
Repeat Regions	40
rRNA	16

**Subsystem Analysis**

Subsystem (Subsystems, Genes)
METABOLISM (115, 1105)
PROTEIN PROCESSING (43, 243)
STRESS RESPONSE, DEFENSE, VIRULENCE (33, 179)
ENERGY (33, 321)
MEMBRANE TRANSPORT (26, 181)
CELLULAR PROCESSES (18, 162)
DNA PROCESSING (16, 69)
RNA PROCESSING (15, 84)
MISCELLANEOUS (8, 36)
CELL ENVELOPE (8, 65)
REGULATION AND CELL SIGNALING (3, 12)

Table 3: Antimicrobial Resistance Genes

AMR Mechanism	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
Antibiotic target replacement protein	FabG, HtdX
Efflux pump conferring antibiotic resistance	MacA, MacB, MdtABC-OMF, MdtABC-ToIC, MexAB-OprM, MexCD-OprJ, MexCD-OprJ system, MexEF-OprN, MexEF-OprN system, MexJK-OprM/OpmH, MexVW-OprM, ToIC/OpmH
Gene conferring resistance via absence	gidB
Protein altering cell wall charge conferring antibiotic resistance	GdpD, PgsA
Regulator modulating expression of antibiotic resistance genes	OxyR

Genome Assembly