

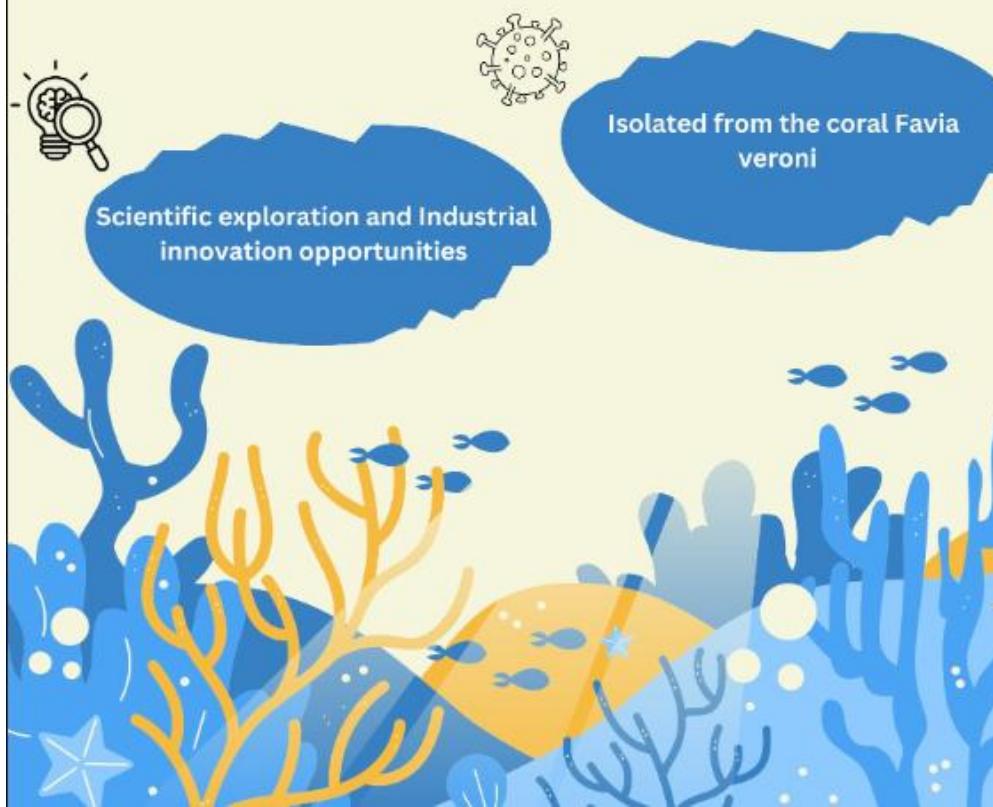


Government of India
Ministry of Science & Technology
Department of Biotechnology



ONE DAY ONE GENOME

Glutamicibacter mishrai sp. nov.



Quality of Genome Assembly and Annotation:

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

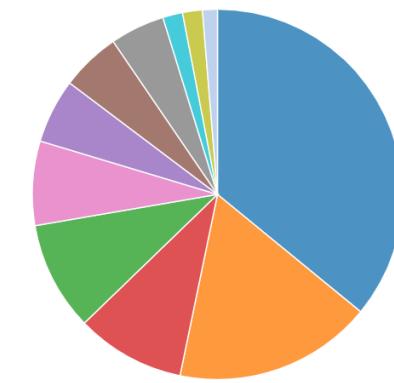
Table 1: Assembly Details

Contigs	1
GC Content	59.44
Contig L50	1
Genome length	3,570,747 bp
Contig N50	3,570,747

Table 2: Annotated Genome Features

CDS	3,358
tRNA	64
Repeat Regions	18
rRNA	13

Subsystem Analysis



Subsystem (Subsystems, Genes)

- METABOLISM (83, 598)
- PROTEIN PROCESSING (40, 208)
- STRESS RESPONSE, DEFENSE, VIRULENCE (22, 122)
- ENERGY (22, 144)
- DNA PROCESSING (17, 59)
- CELLULAR PROCESSES (13, 75)
- MEMBRANE TRANSPORT (12, 65)
- RNA PROCESSING (11, 41)
- MISCELLANEOUS (4, 9)
- REGULATION AND CELL SIGNALING (4, 14)
- CELL ENVELOPE (3, 4)

Genome Assembly

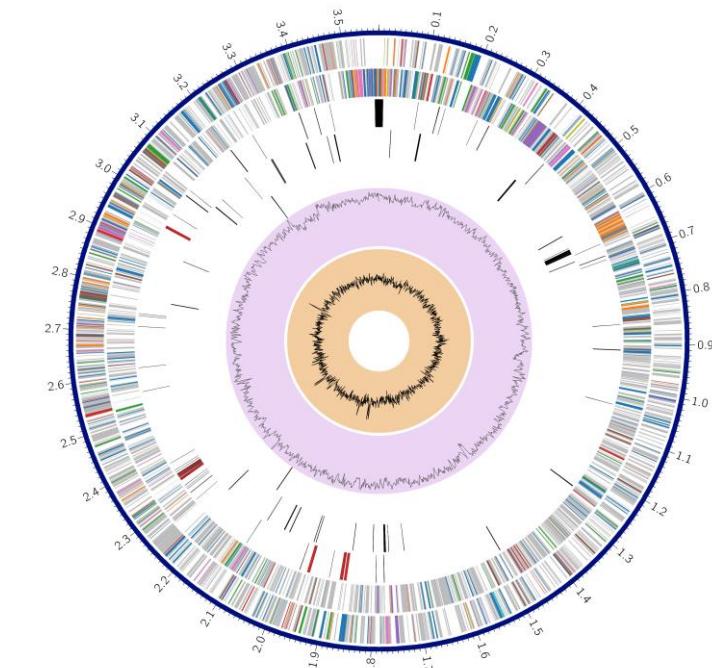


Table 3: Antimicrobial Resistance Genes

AMR Mechanism	Genes
Antibiotic target in susceptible species	Air, Ddl, dxr, EF-G, EF-Tu, folA, Dfr, folP, gyrA, gyrB, Iso-tRNA, kasA, MurA, rho, rpoB, rpoC, S10p, S12p
Antibiotic target replacement protein	FabG, FabL-like, HtdX
Regulator modulating expression of antibiotic resistance genes	LpqB, MtrA, MtrB
Protein altering cell wall charge conferring antibiotic resistance	GdpD, PgsA