Government of India
Ministry of Science & Technology
Department of Biotechnology

BRIC NIBMG

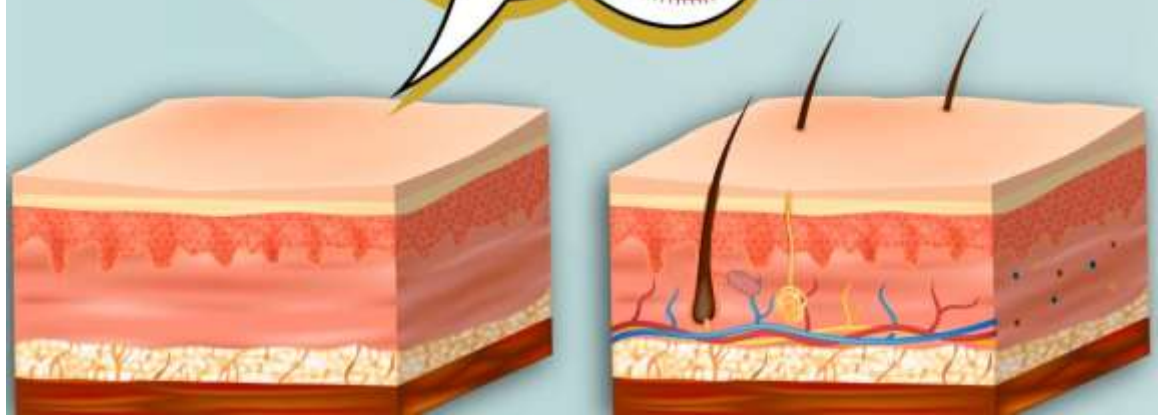
ONE DAY ONE GENOME

SHOWCASING INDIA'S MICROBIAL DIVERSITY

BACILLUS VELEZENSIS

Isolated from human skin

Inhibits growth of
biofilm-forming bacteria



Bacillus velezensis **(NIBMG_HMR_AD42SY)** **Genome Accession Number: INS0022520**

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	34
GC Content	46.15
Contig L50	4
Genome length	4,059,355 bp
Contig N50	311,490

Table 2: Annotated Genome Features	
CDS	4,214
tRNA	79
Repeat Regions	0
rRNA	3

Subsystem Analysis

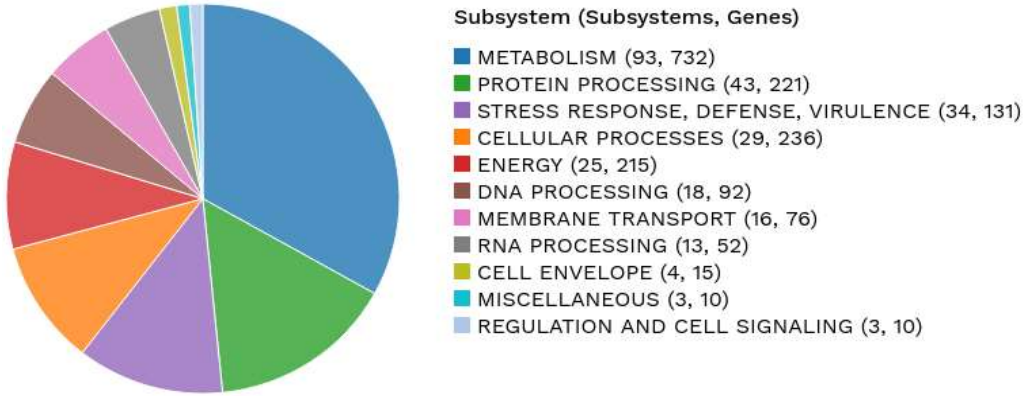


Table 3: Antimicrobial Resistance Genes	
AMR Mechanism	**Genes**
Antibiotic inactivation enzyme	ANT(6)-I, BcII family, FosB
Antibiotic target modifying enzyme	Cfr, RlmA(II)
Antibiotic target in susceptible species	Alr, Ddl, dxr, EF-G, EF-Tu, folA, Dfr, folP, gyrA, gyrB, inhA, fabI, Iso-tRNA, kasA, MurA, rho, rpoB, rpoC, S10p, S12p
Protein altering cell wall charge conferring antibiotic resistance	GdpD, MprF, PgsA
Efflux pump conferring antibiotic resistance	BceA, BceB, EbrA, EbrB, Lmr(B), Tet(L), YkkCD
Regulator modulating expression of antibiotic resistance genes	BceR, BceS, LiaF, LiaR, LiaS

Genome Assembly