

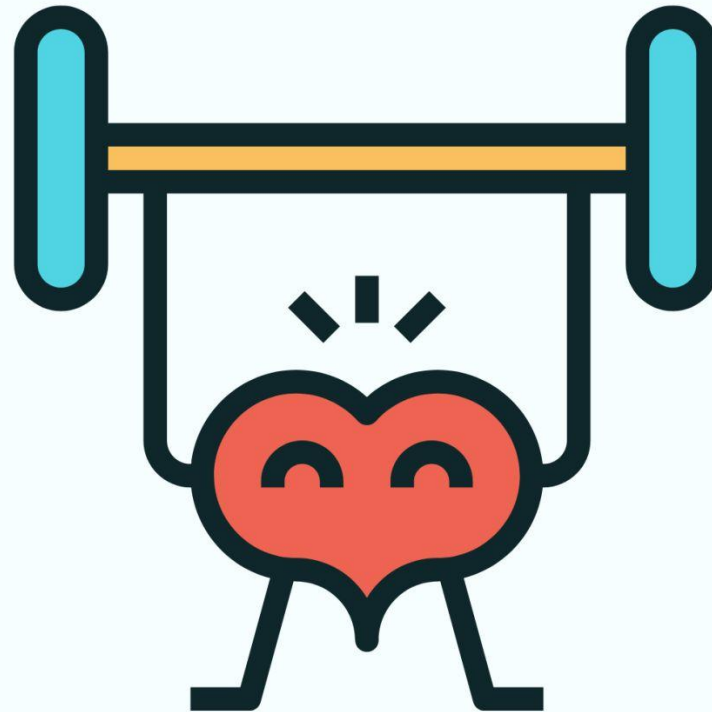


Government of India
Ministry of Science & Technology
Department of Biotechnology



One Day One Genome

Bacillus velezensis



Acts as a nutraceutical against
cardiovascular diseases

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	41
GC Content	46.06
Contig L50	5
Genome length	4,129,579 bp
Contig N50	422,428

Table 2: Annotated Genome Features	
CDS	4,333
tRNA	72
rRNA	3

Subsystem Analysis

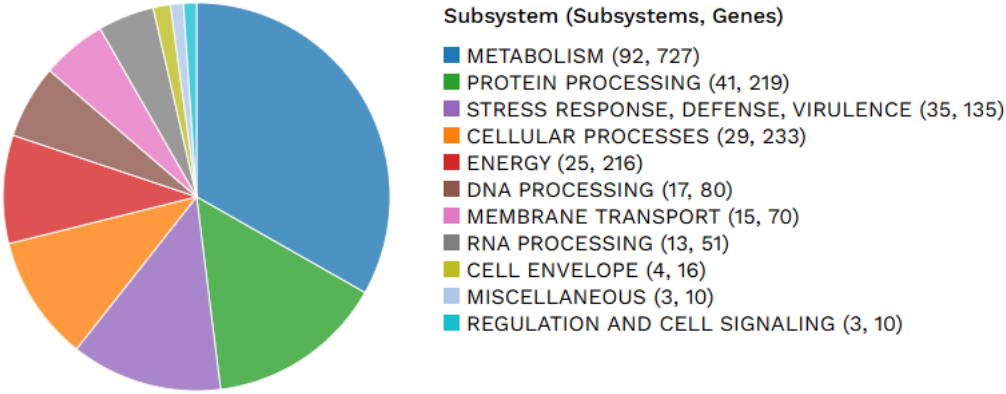


Table 3: Antimicrobial Resistance Genes	
AMR Mechanism	Genes
Antibiotic target in susceptible species	Alr, Ddl, dxr, EF-G, EF-Tu, folA, Dfr, folP, gyrA, gyrB, inhA, fabI, Iso-tRNA, kasA, MurA, rho, rpoB, rpoC, S10p, S12p
Antibiotic target replacement protein	fabI
Protein altering cell wall charge conferring antibiotic resistance	GdpD, PgsA, MprF
Efflux pump conferring antibiotic resistance	BceA, BceB, EbrA, EbrB, Lmr(B), Tet(L), YkkCD
Gene conferring resistance via absence	gidB
Regulator modulating expression of antibiotic resistance genes	BceR, BceS, LiaF, LiaR, LiaS

Genome Assembly

