



जैवप्रौद्योगिकी विभाग
DEPARTMENT OF
BIOTECHNOLOGY

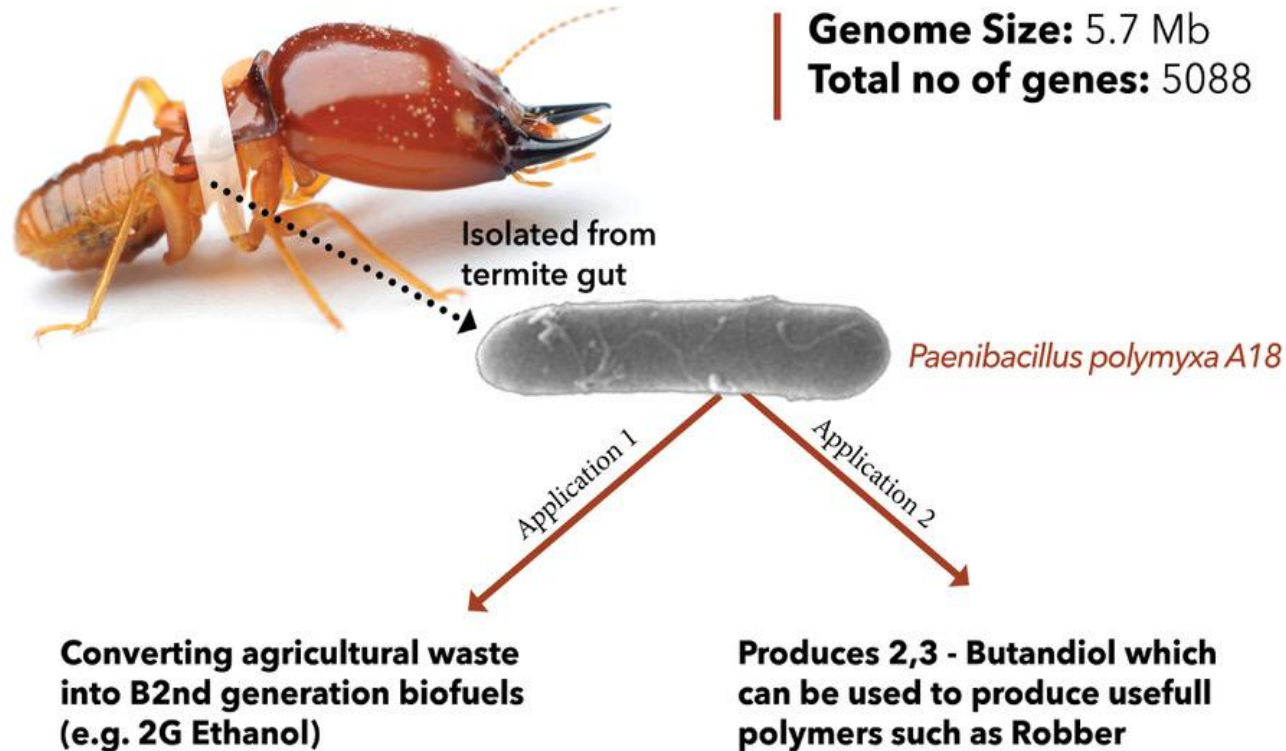


ICGEB

International Centre for Genetic
Engineering and Biotechnology

#OneDayOneGenomeInitiative

Today's Genome: *Paenibacillus polymyxa* A18 bacteria



Genome Size: 5.7 Mb
Total no of genes: 5088

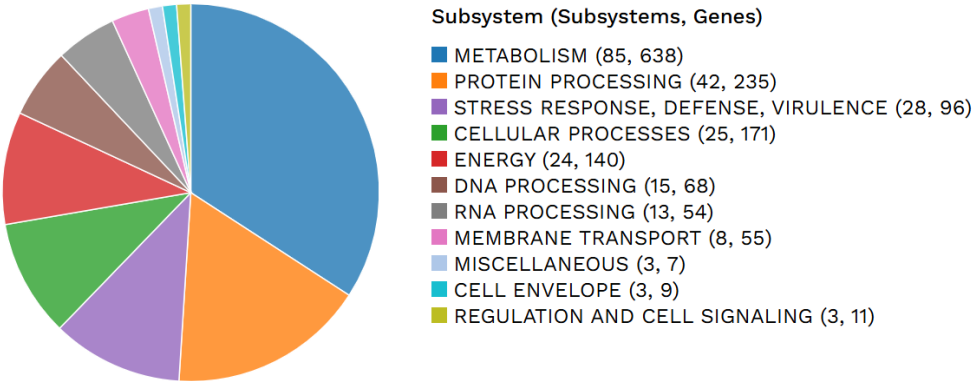
Quality of Genome Assembly and Annotation:
Results from indigenously developed **BHARAT** analysis pipeline:
(**B**acterial **H**ybrid genome **A**ssembly and **R**apid **A**nnotation **T**oolset)

Table 1: Assembly Details	
Contigs	28
GC Content	45.31
Contig L50	2
Genome length	5,714,252 bp
Contig N50	1,538,476

Table 2: Annotated Genome Features	
CDS	5,273
tRNA	107
Repeat Regions	39
rRNA	2

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
Efflux pump conferring antibiotic resistance	BceA, BceB, YkkCD
Protein altering cell wall charge conferring antibiotic resistance	GdpD, MprF, PgsA
Antibiotic inactivation enzyme	ANT(6)-I, BlaZ family, FosB
Regulator modulating expression of antibiotic resistance genes	BceR, BceS, LiaR, LiaS

Subsystem Analysis



Genome Assembly

