

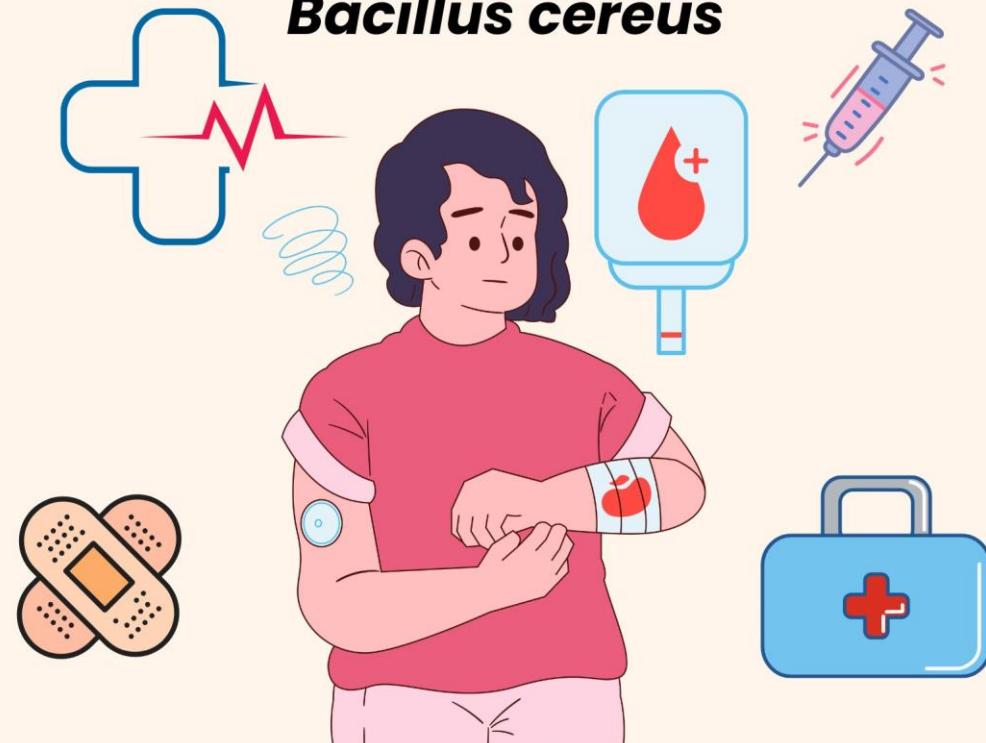


Government of India  
Ministry of Science & Technology  
Department of Biotechnology  
संवर्धन व जनते



# One Day One Genome

***Bacillus cereus***



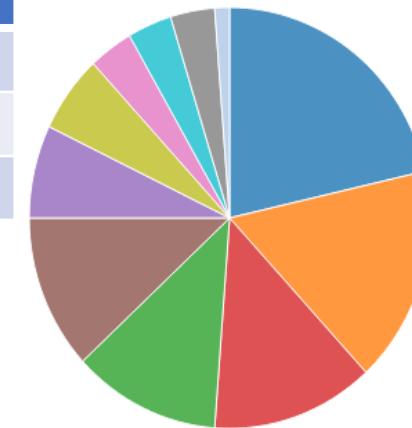
The strain contributes to tissue necrosis and  
poor wound outcomes

**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	793
GC Content	34.17
Contig L50	234
Genome length	1,536,660 bp
Contig N50	2,053

**Table 2: Annotated Genome Features**

CDS	2,322
tRNA	22
rRNA	4

**Subsystem Analysis****Subsystem (Subsystems, Genes)**

STRESS RESPONSE, DEFENSE, VIRULENCE	(18, 34)
METABOLISM	(14, 31)
MEMBRANE TRANSPORT	(11, 22)
ENERGY	(10, 27)
PROTEIN PROCESSING	(10, 21)
CELLULAR PROCESSES	(6, 21)
RNA PROCESSING	(5, 7)
CELL ENVELOPE	(3, 11)
MISCELLANEOUS	(3, 7)
DNA PROCESSING	(3, 8)
REGULATION AND CELL SIGNALING	(1, 3)

**Table 3: Antimicrobial Resistance Genes**

AMR Mechanism	Genes
Antibiotic inactivation enzyme	CatA15/A16 family
Antibiotic target modifying enzyme	Cfr, RlmA(II)
Antibiotic target protection protein	BcrC
Protein altering cell wall charge conferring antibiotic resistance	GdpD
Efflux pump conferring antibiotic resistance	BcrA, BcrB, YkkCD

**Genome Assembly**