



Government of India  
Ministry of Science & Technology  
Department of Biotechnology

मंत्रालय भवन



राष्ट्रीय बायोमेडिकल  
जीनोमिक्स संस्थान  
National Institute of  
Biomedical Genomics

# One Day One Genome

*Stutzerimonas  
stutzeri*



Competitive interactions with other  
microbes to maintain skin homeostasis

Nutrient cycling

## 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	51
GC Content	64.10 %
Contig L50	7
Genome length	4,499,401 bp
Contig N50	286,117

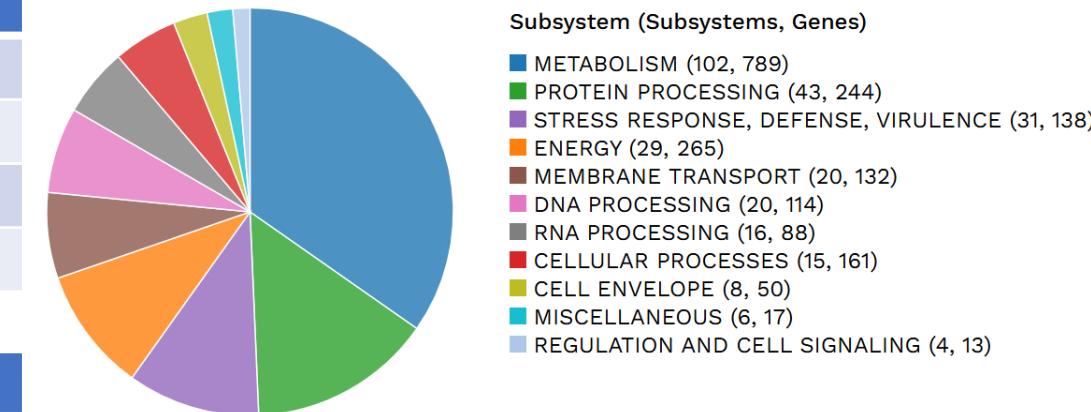
Table 2: Annotated Genome Features

CDS	4,270
tRNA	58
Repeat Regions	0
rRNA	3

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	MdtABC-OMF, MdtABC-TolC, MexAB-OprM, MexEF-OprN, MexEF-OprN system, MexJK-OprM/OpmH, MexVW-OprM, TolC/OpmH
Protein modulating permeability to antibiotic	OccD4/OpdT, OccD6/OprQ, OccK5/OpdH, OprD family, OprF
Regulator modulating expression of antibiotic resistance genes	OxyR
Protein altering cell wall charge conferring antibiotic resistance	GdpD, PgsA
Antibiotic inactivation enzyme	LCR/NPS family

## Subsystem Analysis



## Genome Assembly

