



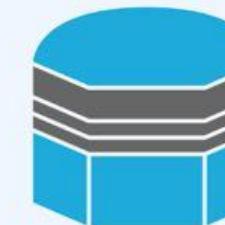
#OneDayOneGenomeInitiative

Xanthomonas oryzae pv. *oryzicola* (Xoc)



Genomics

Completed genome decoding
using NGS technology



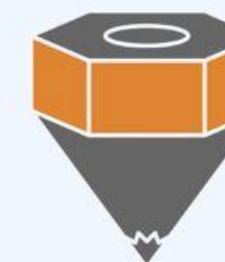
Agricultural Research

Insights into role in bacterial
leaf streak and host
interactions



Insight

Uncovering genetic
mechanisms of pathogenicity
and adaptability



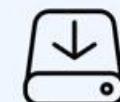
Isolation

Isolated from rice plants in
Kurnool, India



Translation

Identified targets for resistant
rice varieties and treatments



INDIA
Indian Nucleotide Data Archive

INS0009880

Quality of Genome Assembly and Annotation:

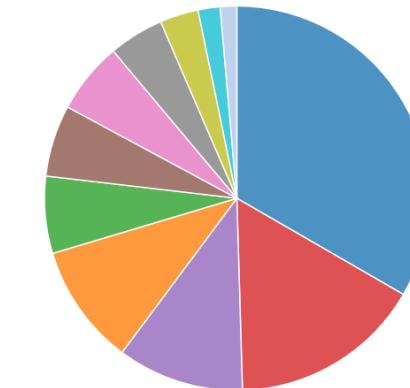
Results from indigenously developed **BHARAT** analysis pipeline:
(Bacterial Hybrid genome Assembly and Rapid Annotation Toolset)

Table 1: Assembly Details

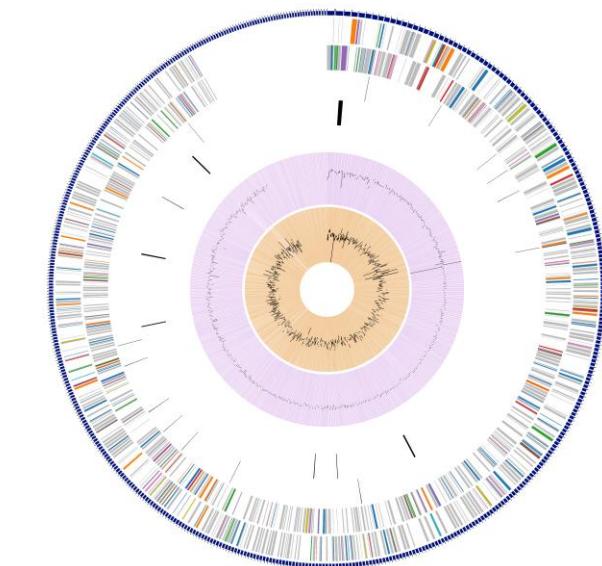
Contigs	1,380
GC Content	63.64
Contig L50	430
Genome length	2,817,995 bp
Contig N50	2,205

Table 2: Annotated Genome Features

CDS	3,708
tRNA	20
Repeat Regions	0

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

METABOLISM	(72, 436)
PROTEIN PROCESSING	(35, 101)
STRESS RESPONSE, DEFENSE, VIRULENCE	(23, 92)
ENERGY	(22, 207)
CELLULAR PROCESSES	(14, 105)
MEMBRANE TRANSPORT	(13, 75)
DNA PROCESSING	(13, 49)
RNA PROCESSING	(10, 42)
CELL ENVELOPE	(7, 28)
REGULATION AND CELL SIGNALING	(4, 12)
MISCELLANEOUS	(3, 11)

Genome Assembly**Table 3: Antimicrobial Resistance Genes**

AMR Mechanism	Genes
Antibiotic target replacement protein	fabV
Antibiotic target in susceptible species	Alr, Ddl, dxr, EF-G, folA, Dfr, folP, gyrA, gyrB, Iso-tRNA, kasA, MurA, rho, rpoB, rpoC
Efflux pump conferring antibiotic resistance	EmrAB-ToIC, MdtABC-ToIC, MexCD-OprJ
Protein altering cell wall charge conferring antibiotic resistance	GdpD, PgsA
Regulator modulating expression of antibiotic resistance genes	OxyR