

## Quality of Genome Assembly and Annotation:

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

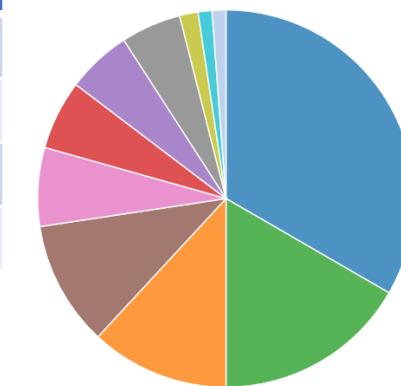
Table 1: Assembly Details

|               |              |
|---------------|--------------|
| Contigs       | 23           |
| GC Content    | 65.09        |
| Contig L50    | 5            |
| Genome length | 3,203,428 bp |
| Contig N50    | 288,423      |

Table 2: Annotated Genome Features

|                |       |
|----------------|-------|
| CDS            | 3,134 |
| tRNA           | 44    |
| Repeat Regions | 3     |
| rRNA           | 0     |

## Subsystem Analysis



## Subsystem (Subsystems, Genes)

|                                     |           |
|-------------------------------------|-----------|
| METABOLISM                          | (84, 605) |
| PROTEIN PROCESSING                  | (42, 210) |
| ENERGY                              | (30, 237) |
| STRESS RESPONSE, DEFENSE, VIRULENCE | (27, 103) |
| DNA PROCESSING                      | (17, 79)  |
| CELLULAR PROCESSES                  | (15, 112) |
| MEMBRANE TRANSPORT                  | (14, 110) |
| RNA PROCESSING                      | (13, 50)  |
| CELL ENVELOPE                       | (4, 23)   |
| MISCELLANEOUS                       | (3, 17)   |
| REGULATION AND CELL SIGNALING       | (3, 7)    |

Table 3: Antimicrobial Resistance Genes

| AMR Mechanism  | Genes  |
|--|--|
| Antibiotic target in susceptible species                           | Air, 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                       | EmrAB-OMF, EmrAB-TolC, MdtABC-OMF, MdtABC-TolC   |
| Regulator modulating expression of antibiotic resistance genes     | OxyR   |
| Antibiotic target protection protein                               | BcrC   |
| Protein altering cell wall charge conferring antibiotic resistance | GdpD, PgsA   |

## Genome Assembly

