



Government of India  
Ministry of Science & Technology  
Department of Biotechnology



# ONE DAY ONE GENOME

*Moraxella tetraodonis*  
sp. nov

The novel bacterium provides  
new insights into antioxidant  
roles and microbial functions in  
aquatic environments



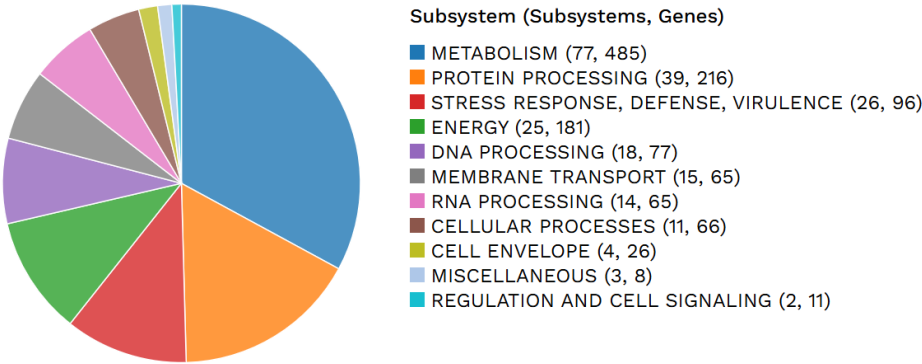
Quality of Genome Assembly and Annotation:

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 |              | Table 2: Annotated Genome Features |       |
|---------------------------|--------------|------------------------------------|-------|
| Contigs                   | 7            | CDS                                | 2,534 |
| GC Content                | 43.38 %      | tRNA                               | 48    |
| Contig L50                | 1            | Repeat Regions                     | 149   |
| Genome length             | 2,724,669 bp | rRNA                               | 12    |
| Contig N50                | 2,439,788    |                                    |       |

| 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                       | EmrAB-TolC, MacA, MacB, TolC/OpmH                                                                                      |
| Regulator modulating expression of antibiotic resistance genes     | OxyR                                                                                                                   |
| Protein altering cell wall charge conferring antibiotic resistance | GdpD, PgsA                                                                                                             |
| Antibiotic target replacement protein                              | FabG, HtdX                                                                                                             |

Subsystem Analysis



Genome Assembly

