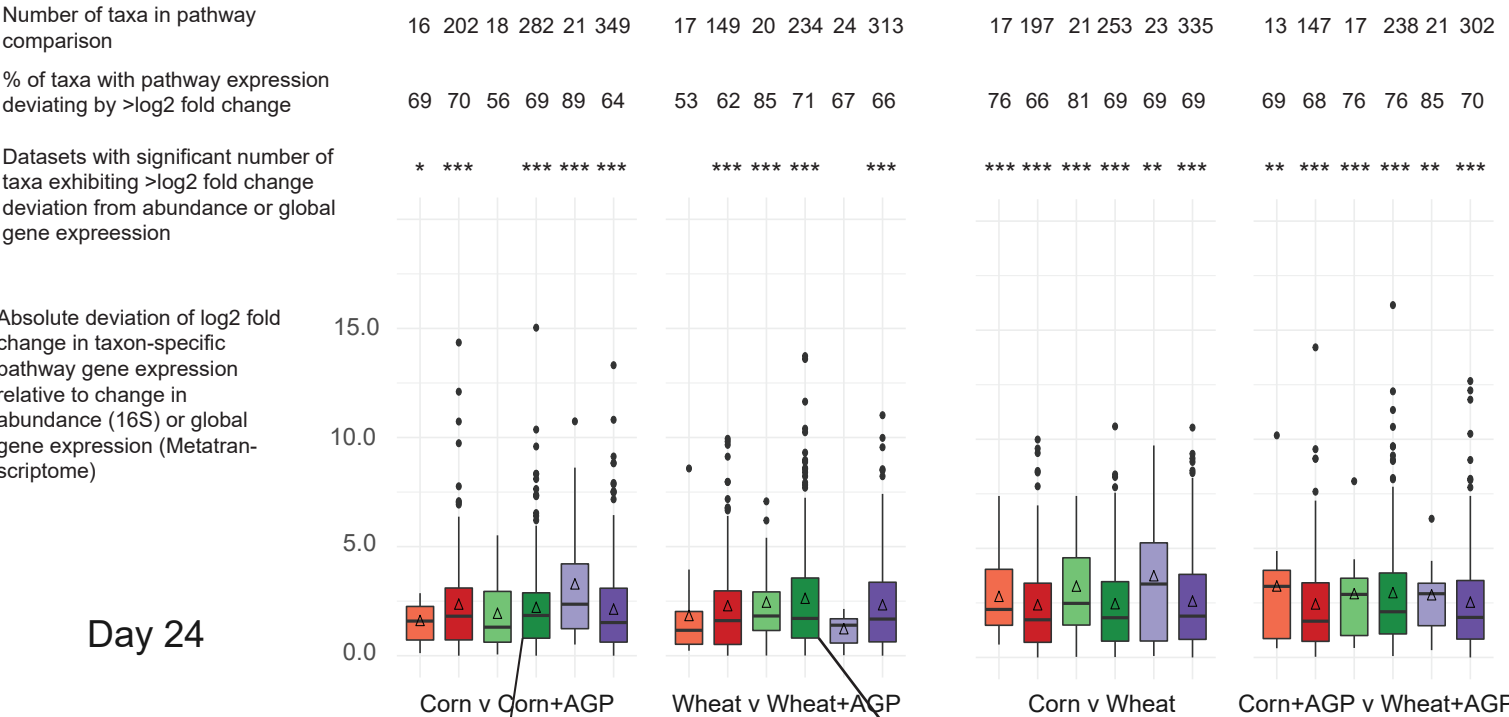
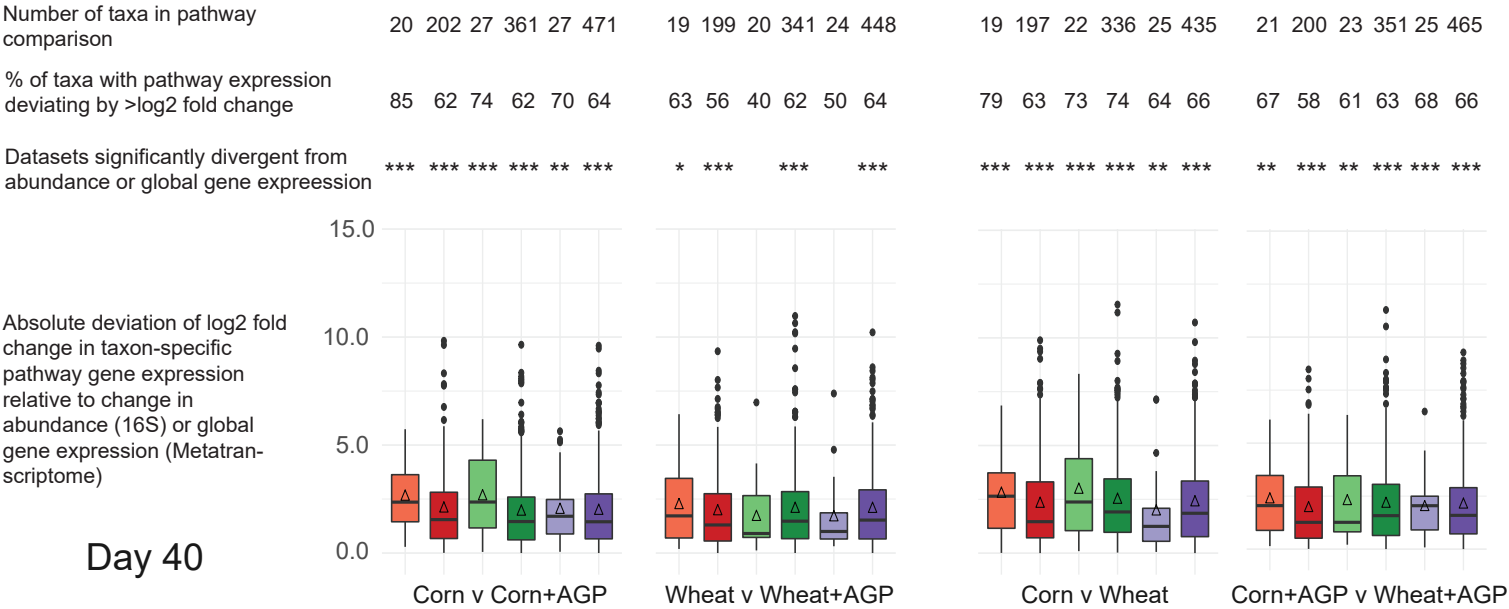




Dataset

- Cell Wall Biogenesis 16S
- Cell Wall Biogenesis Metatranscriptome
- Glycolysis 16S
- Glycolysis Metatranscriptome
- Purine Metabolism 16S
- Purine Metabolism Metatranscriptome

| Genus            | Clade                | log2FC pathway expression | log2FC all gene expression | Deviation between pathway and all gene expression |
|------------------|----------------------|---------------------------|----------------------------|---------------------------------------------------|
| Providencia      | Other Proteobacteria | 4.01                      | -5.58                      | 9.59                                              |
| Lacunisphaera    | Other Bacteria       | 9.57                      | 1.23                       | 8.34                                              |
| Leclercia        | Enterobacteriaceae   | 0.38                      | -7.26                      | 7.64                                              |
| Cellulomonas     | Other Bacteria       | 8.54                      | 1.20                       | 7.34                                              |
| Chromohalobacter | Other Proteobacteria | 1.94                      | -4.59                      | 6.53                                              |
| Jeongeupia       | Betaproteobacteria   | 4.48                      | -1.73                      | 6.21                                              |
| Acetobacter      | Alphaproteobacteria  | 1.85                      | -3.84                      | 5.69                                              |
| Salmonella       | Enterobacteriaceae   | -2.17                     | -7.70                      | 5.53                                              |
| Bifidobacterium  | Other Bacteria       | 3.44                      | -0.75                      | 4.19                                              |
| Chlamydia        | Other Bacteria       | 3.68                      | -0.47                      | 4.15                                              |
| Erwinia          | Other Proteobacteria | 0.22                      | -3.90                      | 4.12                                              |
| Megasphaera      | Other Firmicutes     | 2.98                      | -1.08                      | 4.06                                              |
| Elusimicrobium   | Other Bacteria       | 3.66                      | -0.33                      | 3.98                                              |
| Brachyspira      | Other Bacteria       | 2.57                      | -1.34                      | 3.91                                              |
| Synechococcus    | Other Bacteria       | 0.28                      | -3.53                      | 3.82                                              |
| Roseomonas       | Alphaproteobacteria  | 4.07                      | 0.45                       | 3.62                                              |
| Novibacillus     | Other Bacilli        | 3.56                      | 0.00                       | 3.56                                              |
| Xylanimonas      | Other Bacteria       | 2.56                      | -0.96                      | 3.52                                              |
| Rummeliibacillus | Other Bacilli        | 0.26                      | -3.07                      | 3.33                                              |
| Macroccoccus     | Other Bacilli        | 2.14                      | -1.09                      | 3.23                                              |

| Genus                | Clade                 | log2FC pathway expression | log2FC all gene expression | Deviation between pathway and all gene expression |
|----------------------|-----------------------|---------------------------|----------------------------|---------------------------------------------------|
| Thermosynechococcus  | Other Bacteria        | 5.18                      | -6.47                      | 11.64                                             |
| Mycobacterium        | Other Bacteria        | 8.67                      | -1.73                      | 10.41                                             |
| Rhodanobacter        | Other Proteobacteria  | 4.10                      | -5.21                      | 9.31                                              |
| Eggerthella          | Other Bacteria        | 7.36                      | -1.61                      | 8.97                                              |
| Filifactor           | Peptostreptococcaceae | 9.66                      | 0.78                       | 8.88                                              |
| Kocuria              | Other Bacteria        | -0.21                     | -8.14                      | 7.93                                              |
| Calothrix            | Other Bacteria        | 0.72                      | -7.10                      | 7.82                                              |
| Arsenicicoccus       | Other Bacteria        | 4.59                      | -1.57                      | 6.16                                              |
| Sulfurihydrogenibium | Other Bacteria        | 5.27                      | -0.85                      | 6.12                                              |
| Jeongeupia           | Betaproteobacteria    | 7.00                      | 0.96                       | 6.03                                              |
| Gemmiger             | Other Firmicutes      | 1.88                      | -4.13                      | 6.02                                              |
| Pseudomonas          | Other Proteobacteria  | 2.16                      | -3.48                      | 5.64                                              |
| Corallococcus        | Other Proteobacteria  | 5.16                      | -0.42                      | 5.58                                              |
| Aeribacillus         | Other Bacilli         | 3.62                      | -1.93                      | 5.55                                              |
| Moorella             | Other Firmicutes      | 2.16                      | -3.38                      | 5.54                                              |
| Defluviitoga         | Other Bacteria        | 2.56                      | -2.62                      | 5.18                                              |
| Pelosinus            | Other Firmicutes      | 4.31                      | -0.65                      | 4.96                                              |
| Geosporobacter       | Clostridiaceae        | 3.76                      | -1.02                      | 4.79                                              |
| Cystobacter          | Other Proteobacteria  | 3.50                      | -1.20                      | 4.70                                              |
| Muribaculum          | Other Bacteria        | -2.26                     | -6.66                      | 4.40                                              |