**Supplementary Table 6**. **Individual metabolite response common between mice infected with MRSA and MSSA and human *S. aureus* sepsis.**

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Metabolitea | Change in concentration with effective treatmentb | Human *S. aureus* sepsis | | | Mice infection | | |
|  |  | **RIc** | **p-valuesd** | **w\*e** | **RIc** | **p-valuesd** | **w\*e** |
| 3-hydroxybutanoic acid | ↑ | 1176 |  | \* | 1172 | \* | \* |
| Carbohydrate | ↑ | 1951 |  | \* | 1950 | \*\*\* | \* |
| Cholesterol | ↓ | 3152 |  | \* | 3155 | \*\* | \* |
| Creatinine | ↓ | 1549 |  | \* | 1549 |  | \* |
| Erythritol | ↓ | 1503 |  | \* | 1501 |  | \* |
| Erythrose | ↑ | 1450 |  | \* | 1449 | \*\* | \* |
| Glycerol | ↑ | 1280 |  | \* | 1277 | \*\* | \* |
| Glycerol-3-phosphate | ↓ | 1753 |  | \* | 1754 | \*\*\* | \* |
| Inositol | ↓ | 2081 |  | \* | 2080 |  | \* |
| Linoleic acid | ↑ | 2208 |  | \* | 2208 |  | \* |
| Ribitol | ↓ | 1712 |  | \* | 1696 |  | \* |
| Serine | ↑ | 1363 |  | \* | 1358 | \*\* | \* |
| Threonic acid | ↓ | 1538 |  | \* | 1556 |  | \* |
| Threonine | ↓ | 1384 |  | \* | 1383 | \*\* | \* |
| Unid Y | ↑ | 1702 |  | \* | 1702 | \*\*\* | \* |

aSignificant metabolites common between samples from human patients with severe sepsis caused by *S. aureus* and samples from the analysis of mice infected with *S. aureus*. (A metabolite is considered significant with either a 0.04 > w\* > 0.04 or a p-value < 0.05.)

bRefers to response to antibiotic treatment, where ↑/↓ indicates a higher/lower metabolite concentration in samples with effective treatment compared to samples with ineffective treatment (for mice infection) and in late time point, 144h-2weeks after admittance, compared to acute phase infection samples, 0-24h after admittance (for human sepsis).

cRetention index for all metabolites.

dSignificance regarding p-values is stated with \* for p < 0.05, \*\* for p < 0.01 and \*\*\* for p < 0.001.

eSignificance regarding w\* is stated with \* for -0.04 > w\* > 0.04.