

**Supplementary Table S21. Top 10 differential metabolites between pulmonary infection and Spontaneous bacterial peritonitis in ACLF patients**

| Metabolites                                          | <i>P</i> -value | FDR         | FC          |
|------------------------------------------------------|-----------------|-------------|-------------|
| sphinganine-1-phosphate                              | 2.30987E-05     | 0.020696427 | 1.743429139 |
| deoxycarnitine                                       | 0.000170349     | 0.076316456 | 0.674865399 |
| orotate                                              | 0.000695144     | 0.207616365 | 0.689971459 |
| phenylalanine                                        | 0.001016556     | 0.227708648 | 0.786388423 |
| N-acetylmethionine                                   | 0.001970842     | 0.317647707 | 0.553550325 |
| (N(1) + N(8))-acetylspermidine                       | 0.002396365     | 0.317647707 | 0.660221407 |
| phenyllactate (PLA)                                  | 0.002806968     | 0.317647707 | 0.566981033 |
| citrulline                                           | 0.003171432     | 0.317647707 | 0.726691858 |
| 3-methylcytidine                                     | 0.003304748     | 0.317647707 | 2.020167601 |
| 1-(1-enyl-stearoyl)-2-arachidonoyl-GPE (P-18:0/20:4) | 0.003545175     | 0.317647707 | 1.510484744 |

Note: ACLF, acute-on-chronic liver failure; FC, fold change; FDR, false discovery rate.