

**Table S.2 - The phyletic patterns of the *Corynebacterium* taxa (cut-off: expect value less than  $10^{-10}$  and match length over 70%)**

| Number of genes | Cje   | Cdi | Cgl1 | Cgl2 | Cet |
|-----------------|-------|-----|------|------|-----|
| 1129            | 1     | 1   | 1    | 1    | 1   |
| 673             | 0     | 0   | 1    | 1    | 0   |
| 397             | 0     | 0   | 1    | 1    | 1   |
| 261             | 0     | 0   | 0    | 0    | 1   |
| 248             | 0     | 1   | 1    | 1    | 1   |
| 239             | 1     | 0   | 0    | 0    | 0   |
| 185             | 0     | 1   | 0    | 0    | 0   |
| 112             | 1     | 0   | 1    | 1    | 1   |
| 53              | 1     | 1   | 0    | 0    | 0   |
| 39              | 0     | 1   | 0    | 0    | 1   |
| 37              | 1     | 0   | 0    | 0    | 1   |
| 31              | 1     | 1   | 1    | 1    | 0   |
| 30              | 0     | 1   | 1    | 1    | 0   |
| 25              | 1     | 0   | 1    | 1    | 0   |
| 21              | 1     | 1   | 0    | 0    | 1   |
| 5               | 0     | 0   | 1    | 0    | 0   |
| 1               | 1     | 1   | 0    | 1    | 1   |
| 1               | 0     | 0   | 1    | 0    | 1   |
| 1               | 0     | 0   | 0    | 1    | 0   |
| 3488            | Total |     |      |      |     |