

## Description of Additional Supplementary Files

**File Name:** Supplementary Data 1

**Description:** Full metadata for 829 collected isolates.

**File Name:** Supplementary Data 2

**Description:** AST profile results for tested isolates.

**File Name:** Supplementary Data 3

**Description:** 172 reference *P. aeruginosa* genomes downloaded from NCBI.

**File Name:** Supplementary Data 4

**Description:** Functional annotation of accessory genes from *P. aeruginosa* isolates as output by EggNOG.

**File Name:** Supplementary Data 5

**Description:** PC loading scores of accessory genes from *P. aeruginosa* isolates.