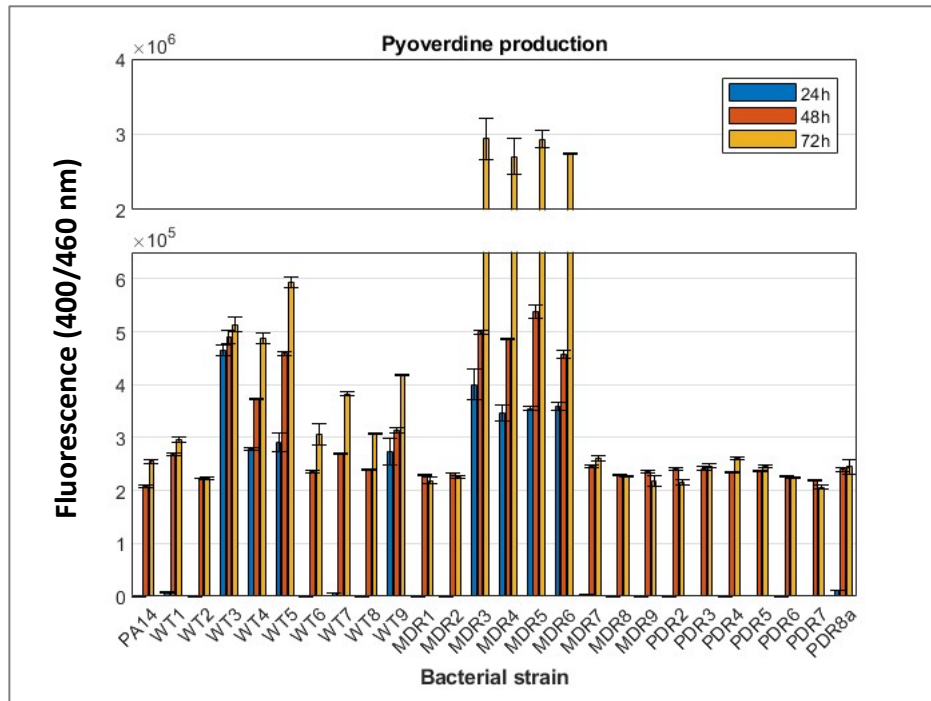
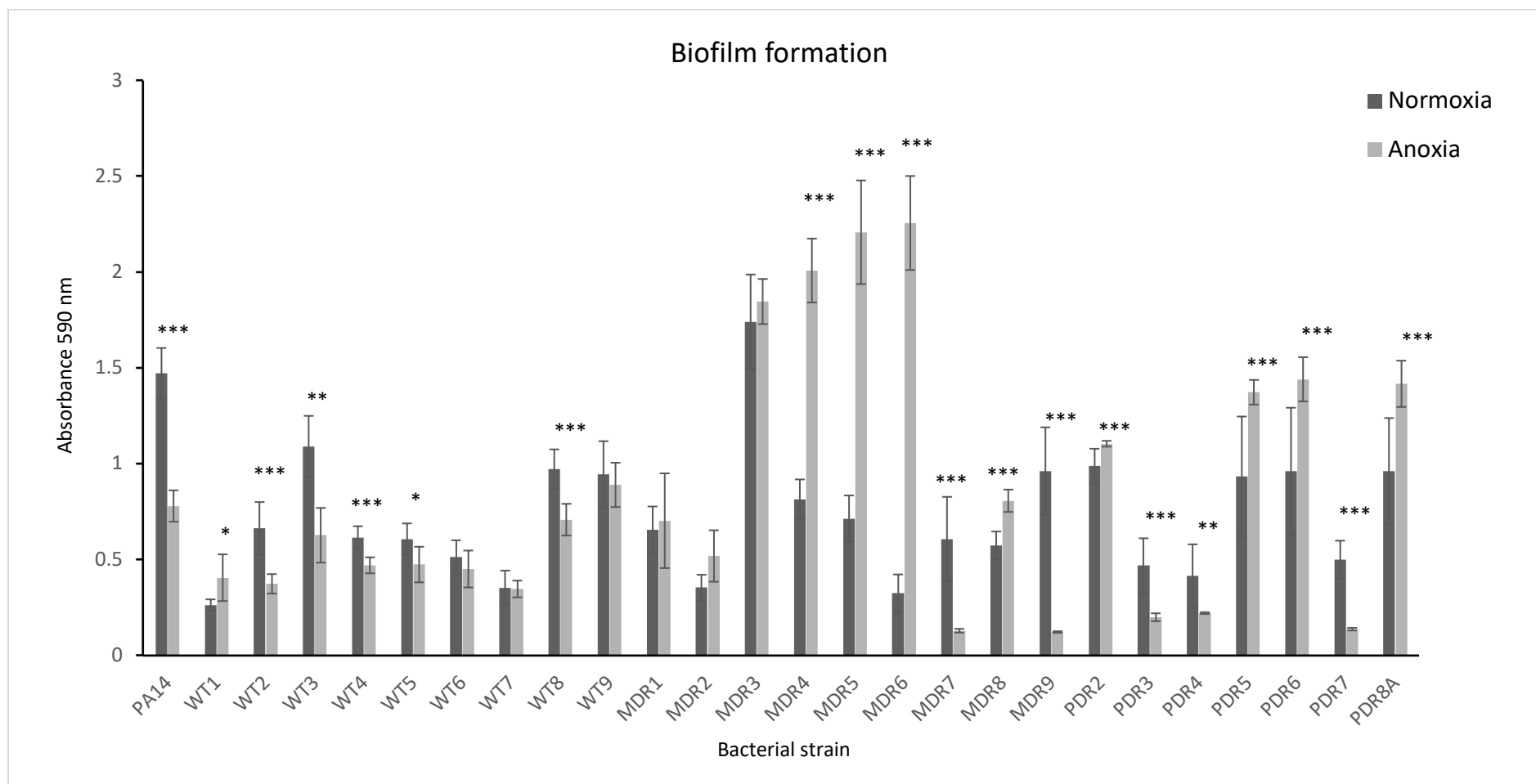


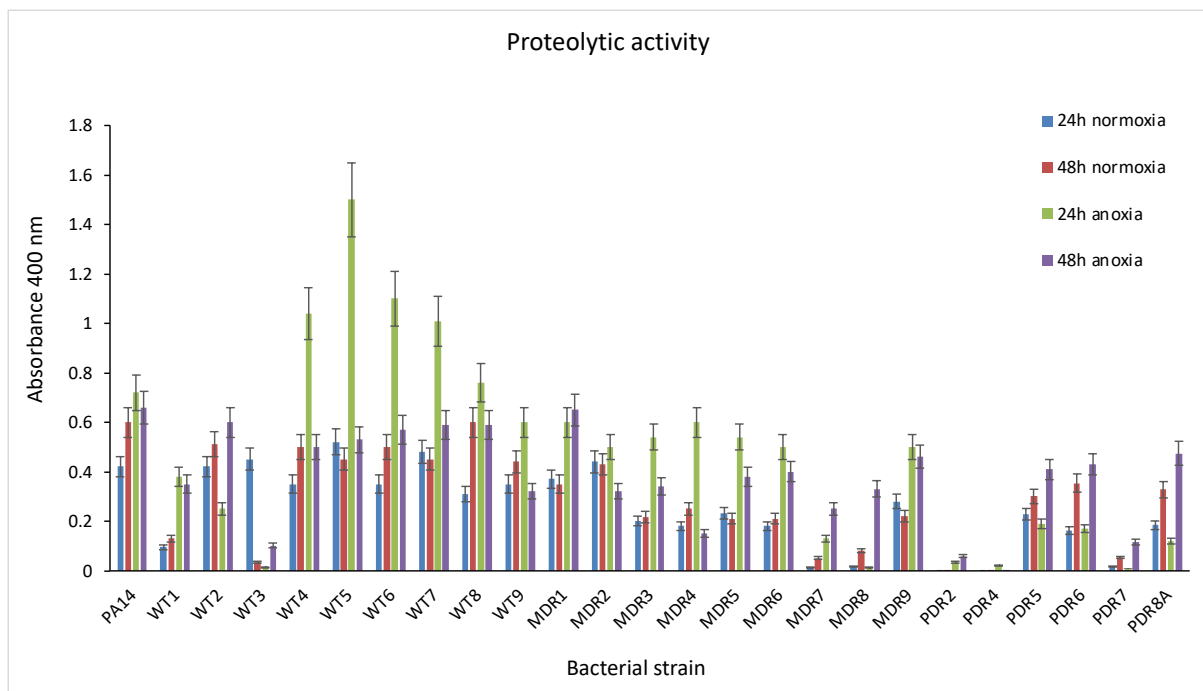
**Figure S1.** Pyocyanin production of *P. aeruginosa* clinical and reference strains. Pyocyanin production was evaluated after 24 h and 48 h of incubation at 37 °C in normoxia. The data are reported as OD at 520nm after pyocyanin extraction. Each data point represents the mean  $\pm$  SD of 2 independent experiments, each performed in 3-replicates. Error bars indicate the standard deviations of all the measurements. WT: wild type, sensitive strains; MDR: multi-drug resistant strains; PDR: pan-drug resistant strains.



**Figure S2.** Pyoverdine production of WT, MDR and PDR strains at 24 h, 48 h and 72 h in normoxia. WT: wild type, sensitive strains; MDR: multi-drug resistant strains; PDR: pan-drug resistant strains.



**Figure S3.** Biofilm formation of *P. aeruginosa* clinical and reference strains. Biofilm formation was evaluated after 18 h of incubation in polystyrene plates at 37 °C in normoxia and anoxia. Data are reported as OD at 590 nm after crystal violet staining. Each data point represents the mean  $\pm$  SD of 4 independent experiments, each performed in 6-replicates. Error bars indicate the standard deviations of all the measurements. Statistical difference was determined by Student's T-test: \*  $p < 0.05$ ; \*\*  $p < 0.01$ , \*\*\*  $p < 0.001$  compared with the control. WT: wild type, sensitive strains; MDR: multi-drug resistant strains; PDR: pan-drug resistant strains.



**Figure S4.** Protease production of different clinical strains and PA14 reference strain at 24 h and 48 h in normoxia and anoxia. Data are expressed as azocasein absorbance normalized for OD of each bacterial culture. Error bars indicated the standard deviations of all the measurements. WT: wild type, sensitive strains; MDR: multi-drug resistant strains; PDR: pan-drug resistant strains.

Table S1: Diameters of swimming motility of WT, MDR and PRD strains at 24, 48 and 72 h in normoxia and anoxia, respectively.

<b>Normoxy</b>	24h (cm)	48h (cm)	72h (cm)
PA14	2.3 ± 0.2	2.9 ± 0.2	3.2 ± 0.3
WT1	2.9 ± 0.2	3.6 ± 0.3	4.2 ± 0.4
WT2	3.2 ± 0.3	3.8 ± 0.4	4.5 ± 0.4
WT3	1.9 ± 0.2	2.9 ± 0.2	3.2 ± 0.3
WT4	3.2 ± 0.3	4.8 ± 0.5	4.8 ± 0.5
WT5	1.8 ± 0.2	2.5 ± 0.2	2.9 ± 0.3
WT6	2.9 ± 0.3	3.7 ± 0.4	3.9 ± 0.4
WT7	2.9 ± 0.3	3.5 ± 0.3	3.7 ± 0.4
WT8	0.5 ± 0.0	0.6 ± 0.1	0.6 ± 0.1
WT9	2.3 ± 0.2	2.9 ± 0.3	3.6 ± 0.3
MDR1	1.1 ± 0.1	1.5 ± 0.1	2.1 ± 0.2
MDR2	2.0 ± 0.2	2.6 ± 0.2	2.8 ± 0.3
MDR3	0.6 ± 0.1	1.4 ± 0.1	1.8 ± 0.2
MDR4	0.9 ± 0.1	1.2 ± 0.1	1.6 ± 0.1
MDR5	0.9 ± 0.1	1.5 ± 0.1	1.8 ± 0.2
MDR6	0.9 ± 0.1	1.3 ± 0.1	1.6 ± 0.1
MDR7	0.5 ± 0.0	0.5 ± 0.0	0.5 ± 0.0
MDR8	0.5 ± 0.0	0.6 ± 0.1	1.0 ± 0.1
MDR9	0.7 ± 0.1	1.2 ± 0.1	1.8 ± 0.2
PDR2	0.9 ± 0.1	2.3 ± 0.2	2.6 ± 0.2
PDR3	0.6 ± 0.1	0.6 ± 0.1	0.6 ± 0.1
PDR4	0.6 ± 0.1	1.3 ± 0.1	1.4 ± 0.1
PDR5	2.6 ± 0.2	3.2 ± 0.2	3.7 ± 0.3
PDR6	2.4 ± 0.2	3.1 ± 0.3	3.5 ± 0.3
PDR7	0.5 ± 0.0	1.4 ± 0.1	2.1 ± 0.2
PDR8A	1.0 ± 0.1	2.1 ± 0.2	2.6 ± 0.2

<b>Anoxia</b>	24h (cm)	48h (cm)	72h (cm)
PA14	1.3 ± 0.1	1.6 ± 0.1	1.9 ± 0.2
WT1	2.6 ± 0.2	4.5 ± 0.4	4.8 ± 0.5
WT2	0.5 ± 0.0	0.5 ± 0.0	0.5 ± 0.0
WT3	1.0 ± 0.1	1.6 ± 0.1	1.8 ± 0.1
WT4	1.3 ± 0.1	1.9 ± 0.2	2.3 ± 0.2
WT5	0.3 ± 0.0	0.3 ± 0.0	0.3 ± 0.0
WT6	2.3 ± 0.1	3.0 ± 0.3	3.8 ± 0.3
WT7	1.0 ± 0.1	2.5 ± 0.2	2.9 ± 0.3
WT8	0.3 ± 0.0	0.5 ± 0.0	0.5 ± 0.0
WT9	2.1 ± 0.2	3.5 ± 0.3	3.9 ± 0.4
MDR1	0.6 ± 0.1	1.6 ± 0.1	1.8 ± 0.2
MDR2	0.3 ± 0.0	0.3 ± 0.0	0.3 ± 0.0
MDR3	0.6 ± 0.1	0.9 ± 0.1	0.9 ± 0.1
MDR4	0.6 ± 0.1	1.9 ± 0.2	1.9 ± 0.2
MDR5	0.5 ± 0.0	0.8 ± 0.1	1.2 ± 0.1
MDR6	0.5 ± 0.0	0.8 ± 0.1	0.9 ± 0.1
MDR7	0.4 ± 0.0	0.4 ± 0.0	0.4 ± 0.0
MDR8	0.4 ± 0.0	0.4 ± 0.0	0.4 ± 0.0
MDR9	0.6 ± 0.1	1.3 ± 0.1	1.5 ± 0.1
PDR2	0.8 ± 0.1	1.6 ± 0.1	2.0 ± 0.2
PDR3	0.5 ± 0.0	0.5 ± 0.0	0.5 ± 0.0
PDR4	0.6 ± 0.1	0.6 ± 0.1	0.6 ± 0.1
PDR5	2.1 ± 0.2	2.6 ± 0.2	3.2 ± 0.3
PDR6	0.4 ± 0.0	0.4 ± 0.0	0.4 ± 0.0
PDR7	0.3 ± 0.0	0.3 ± 0.0	0.3 ± 0.0
PDR8A	1.3 ± 0.1	2.6 ± 0.3	2.6 ± 0.3

Table S2: Diameters of swarming motility of WT, MDR and PRD strains at 24, 48 and 72 h in normoxia and anoxia, respectively.

<b>Normoxy</b>	24h (cm)	48h (cm)	72h (cm)
PA14	1.0 ± 0.1	1.1 ± 0.1	1.3 ± 0.1
WT1	1.0 ± 0.1	1.3 ± 0.1	1.5 ± 0.2
WT2	1.3 ± 0.1	1.6 ± 0.1	1.6 ± 0.2
WT3	1.0 ± 0.1	1.3 ± 0.1	1.6 ± 0.1
WT4	1.3 ± 0.1	1.3 ± 0.1	1.3 ± 0.1
WT5	1.0 ± 0.1	1.1 ± 0.1	1.3 ± 0.1
WT6	1.0 ± 0.1	1.0 ± 0.1	1.3 ± 0.1
WT7	1.0 ± 0.1	1.1 ± 0.1	1.3 ± 0.1
WT8	0.6 ± 0.1	0.6 ± 0.1	0.6 ± 0.1
WT9	1.6 ± 0.2	1.6 ± 0.2	1.6 ± 0.2
MDR1	1.0 ± 0.1	1.0 ± 0.1	1.1 ± 0.1
MDR2	1.6 ± 0.1	1.6 ± 0.1	1.6 ± 0.1
MDR3	0.6 ± 0.1	0.8 ± 0.1	1.0 ± 0.1
MDR4	0.6 ± 0.1	1.0 ± 0.1	1.0 ± 0.1
MDR5	0.6 ± 0.1	0.8 ± 0.1	1.0 ± 0.1
MDR6	0.8 ± 0.1	1.0 ± 0.1	1.0 ± 0.1
MDR7	0.6 ± 0.1	0.6 ± 0.1	0.6 ± 0.1
MDR8	0.6 ± 0.1	0.6 ± 0.1	0.6 ± 0.1
MDR9	0.6 ± 0.1	0.9 ± 0.1	1.5 ± 0.1
PDR2	0.3 ± 0.0	0.6 ± 0.1	0.8 ± 0.1
PDR3	0.6 ± 0.1	0.6 ± 0.1	0.8 ± 0.0
PDR4	0.3 ± 0.0	0.3 ± 0.0	0.3 ± 0.0
PDR5	1.8 ± 0.1	1.9 ± 0.2	2.0 ± 0.2
PDR6	1.6 ± 0.1	1.9 ± 0.1	2.1 ± 0.2
PDR7	0.6 ± 0.1	0.7 ± 0.1	0.8 ± 0.1
PDR8A	1.0 ± 0.1	1.0 ± 0.1	1.0 ± 0.1

<b>Anoxia</b>	24h (cm)	48h (cm)	72h (cm)
PA14	0.6 ± 0.1	0.6 ± 0.1	0.9 ± 0.1
WT1	0.6 ± 0.1	0.7 ± 0.0	0.9 ± 0.1
WT2	0.3 ± 0.0	0.3 ± 0.0	0.3 ± 0.0
WT3	0.6 ± 0.1	1.0 ± 0.1	1.3 ± 0.1
WT4	0.6 ± 0.1	0.6 ± 0.1	0.6 ± 0.1
WT5	0.6 ± 0.1	0.6 ± 0.1	0.6 ± 0.1
WT6	0.8 ± 0.1	1.3 ± 0.1	1.3 ± 0.1
WT7	0.6 ± 0.1	0.6 ± 0.1	0.8 ± 0.1
WT8	0.3 ± 0.0	0.5 ± 0.0	0.5 ± 0.0
WT9	0.8 ± 0.1	0.8 ± 0.1	0.8 ± 0.1
MDR1	0.6 ± 0.1	0.6 ± 0.1	0.6 ± 0.1
MDR2	0.3 ± 0.0	0.5 ± 0.0	0.5 ± 0.0
MDR3	0.6 ± 0.1	0.6 ± 0.1	0.6 ± 0.1
MDR4	0.8 ± 0.1	0.8 ± 0.1	0.8 ± 0.1
MDR5	0.6 ± 0.1	0.6 ± 0.1	0.6 ± 0.1
MDR6	0.6 ± 0.1	0.6 ± 0.1	0.6 ± 0.1
MDR7	0.5 ± 0.0	0.5 ± 0.0	0.5 ± 0.0
MDR8	0.6 ± 0.1	0.6 ± 0.1	0.6 ± 0.1
MDR9	0.6 ± 0.1	0.6 ± 0.1	0.6 ± 0.1
PDR2	0.3 ± 0.0	0.6 ± 0.1	0.6 ± 0.1
PDR3	0.5 ± 0.0	0.5 ± 0.0	0.5 ± 0.0
PDR4	0.3 ± 0.0	0.3 ± 0.0	0.3 ± 0.0
PDR5	0.6 ± 0.1	0.8 ± 0.1	1.0 ± 0.1
PDR6	0.4 ± 0.0	0.5 ± 0.0	0.6 ± 0.1
PDR7	0.3 ± 0.0	0.3 ± 0.0	0.3 ± 0.0
PDR8A	0.8 ± 0.1	0.9 ± 0.1	1.0 ± 0.1