



**Figure S9.** Responders versus non-responders. Cell counts for mucoid (red), non-mucoid (blue), and total (green) *P. aeruginosa* in 4 CF patients throughout the course of an pulmonary exacerbation. Patient 4 is the patient from which the isolates in the current study were collected. Patients 2, 3 and 4 were colonized with the PES strain while the Patient 1 had a non-PES strain. Patients 1 and 2 showed a decline in total *P. aeruginosa* levels and are defined as ‘responders’, i.e. the drop in cell count corresponded with administration of antibiotic therapy. Patients 3 and 4 did not show any drop in *P. aeruginosa* levels despite resolution of exacerbation symptoms and can be defined as ‘non-responders’.