Supplementary information

Genetic modification of *E. coli* strain.

For immune fluorescence detection of bacteria, a pBBR-derived non-mobilisable plasmid carrying a GFP expression cassette was introduced into NECS19923, a clinical strain isolated from a patient. The plasmid was made as follows (personal communication, A. Vergunst): the GFPmut3 gene was amplified from pBBR1-KGFP[1] using primers GFP1 (5’- CCCAAGCTT CATATGAGTAAAGGAGAAGAAC; HindIII site underlined; NdeI site bold) and GFP2 (5’- GCTCTAGACTATTTGTATAGTTCCATCC; XbaI site underlined), and cloned as HindIII-XbaI fragment in pUC21[2] resulting in pIN64. The tac promoter region was amplified from pFLAG-CTC (Sigma-Aldrich) using primers tac1 (5’- AATCTGCAG GAGCTGTTGACAATTAATC; PstI site underlined) and tac2 (5’- GGAATTCCATATGAGATCTTCCTGTGTGAATATTG; NdeI site underlined). The PCR fragment was digested with PstI/NdeI and, together with an XbaI-NdeI (partial) fragment of pIN64, cloned into a non-mobilisable derivative of pBBR1 MCS[3]. To construct this derivative, the mob/oriT region in pBBR1 MCS was removed by digesting the plasmid with BstBI(partial) and NarI and re-ligating the vector backbone, resulting in plasmid pIN10. In addition, a strong transcription termination signal from TrpA was introduced into pIN10 as a SphI-KpnI fragment using linkers trpA1 (5’-CTAGTAGCCCGCCCTAATGAGCGGGCTTTTTTTGTAC) and trpA2 (5’- CAAAAAAAGGCCGCTCATTAGCGGGCTA), resulting in pIN32. The final plasmid pIN25 highly expresses GFP in a wide range of bacteria.