



Fig. S1. Schematic of AST using the EVPL model. This shows an example experiment using tissue from two lungs (shown in orange and purple) to test the effect of one antibiotic concentration on one bacterial isolate. Each treatment (antibiotic or no antibiotic) is applied to five replica sections of tissue from each lung. Two tissue sections from each lung are used as uninfected controls, growth of the study bacterium in these sections acts as a warning of contamination during any step of the assay. Drawings of bronchioles, Petri dishes and 24-well plates are modified from Servier Medical Art under a CC-BY licence; see <http://smart.servier.com>.