## Bacterial Impedance cytometry for rapid antimicrobial susceptibility testing

Bethany Martin PhD student

Public Health England & University of Southampton (Electronics & Computer Sciences)

1st year student (February 2020)

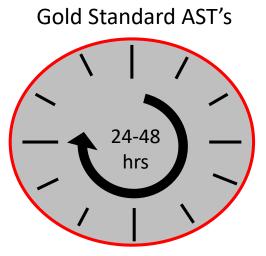
Supervisors: Mark Sutton (PHE), Hywel Morgan(UoS), Charlotte Hind(PHE) and Daniel Spencer (UoS)







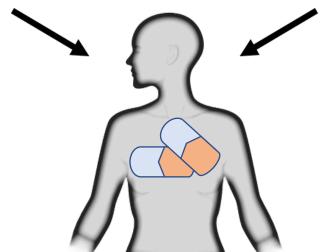
## <u>Current Antimicrobial susceptibility</u> <u>tests (AST's) and Turnaround Time</u>



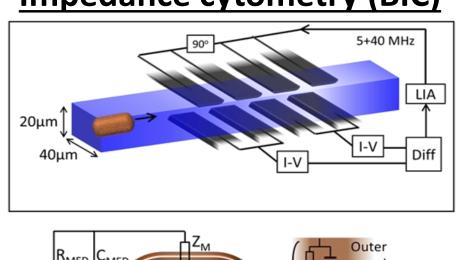
Delayed reporting of treatment,

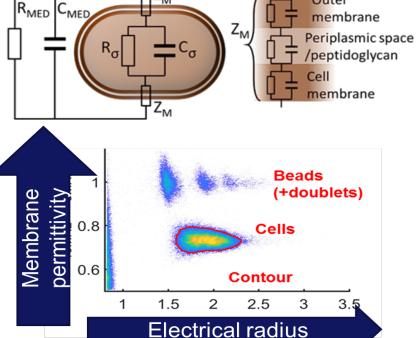






## Rapid AST – Bacterial Impedance cytometry (BIC)





Spencer et al, 2020. A fast impedance-based antimicrobial susceptibility test.