

## Supplementary Information

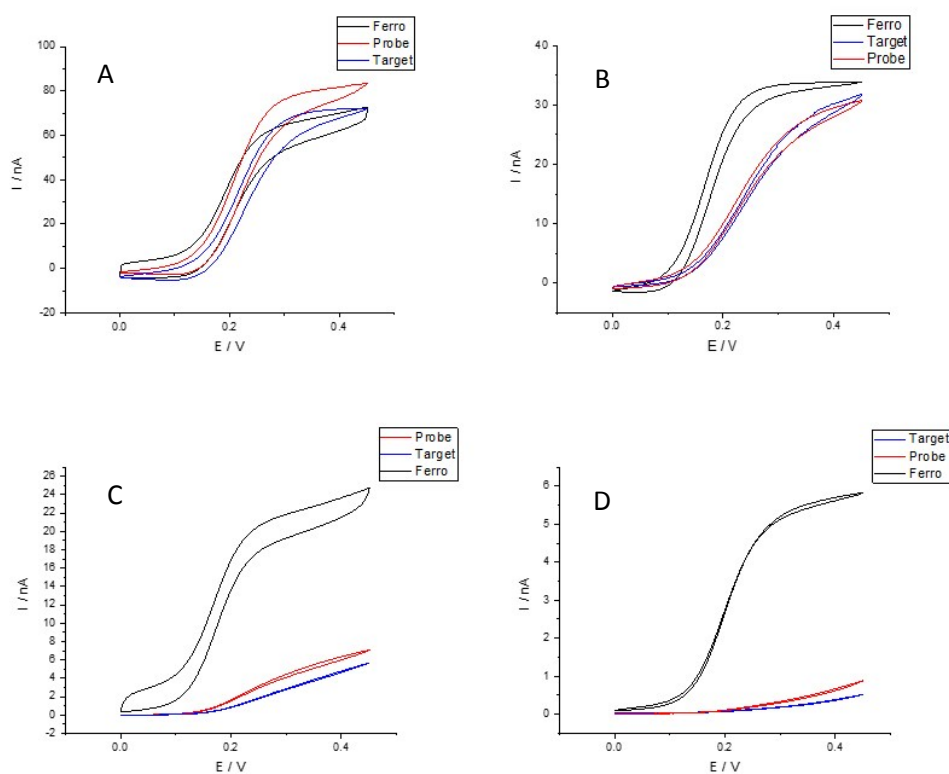
### Impedimetric measurement of DNA-DNA hybridisation using microelectrodes with different radii for detection of methicillin resistant *Staphylococcus aureus* (MRSA).

Poh Quan Li<sup>1</sup> and Damion K Corrigan<sup>2</sup>

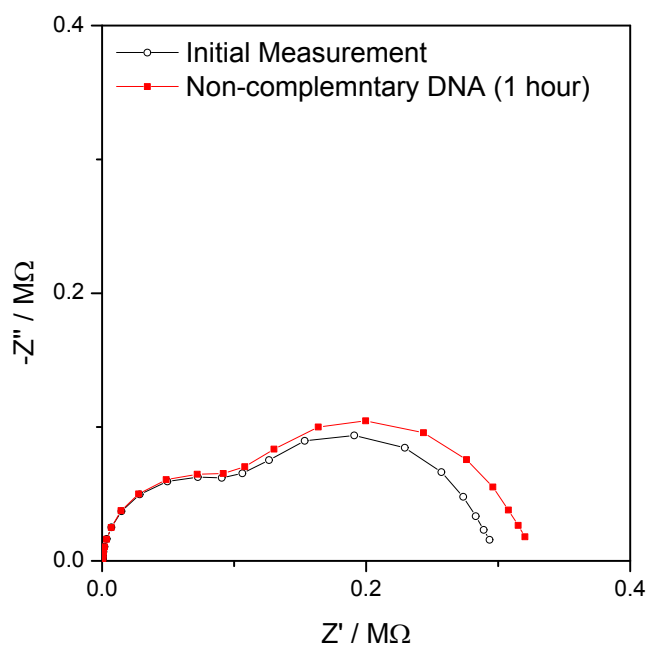
<sup>1</sup> EastCHEM, School of Chemistry, The University of Edinburgh, Joseph Black Building, The King's Buildings, West Mains Road, Edinburgh, EH9 3FJ, Scotland (UK)

<sup>2</sup> Department of Biomedical Engineering, University of Strathclyde, Glasgow, G4 0NS.

Corresponding author – Dr Damion Corrigan – damion.corrigan@strath.ac.uk



**Figure S1. Cyclic voltammetry in 5 mM potassium ferrocyanide + 10 mM KCl following cleaning (black) probe modification (red) and 100 nM DNA target addition. For  $r =$  (A) 50, (B) 25 (C) 15 & (D) 5  $\mu\text{m}$**



**Figure S2. EIS performed in 5 mM potassium ferrocyanide + 10 mM KCl before and after hybridisation with a non-complementary oligonucleotide sequence using a square microelectrode with an edge length of 30  $\mu\text{m}$ .**