

Supplementary information

to

Carbon Electrodes with Gold Nanoparticles for the Electrochemical Detection of miRNA-21-5p

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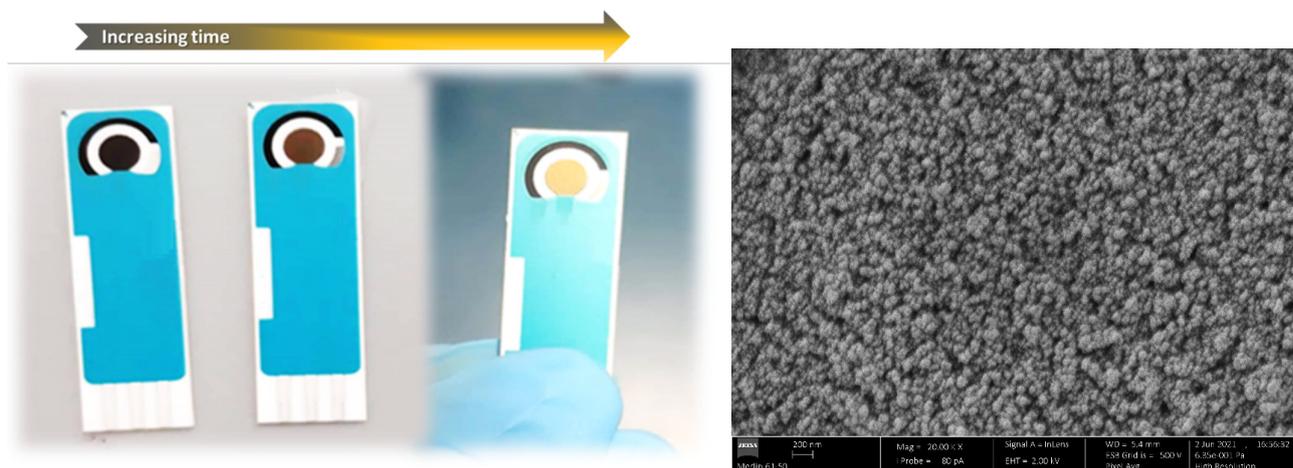


Figure S1: Pictures (left) of the carbon screen-printed electrodes highlighting the effect of time on the electrodeposition of gold on working electrodes and SEM analysis of one of the conditions tested (not the optimum condition selected).

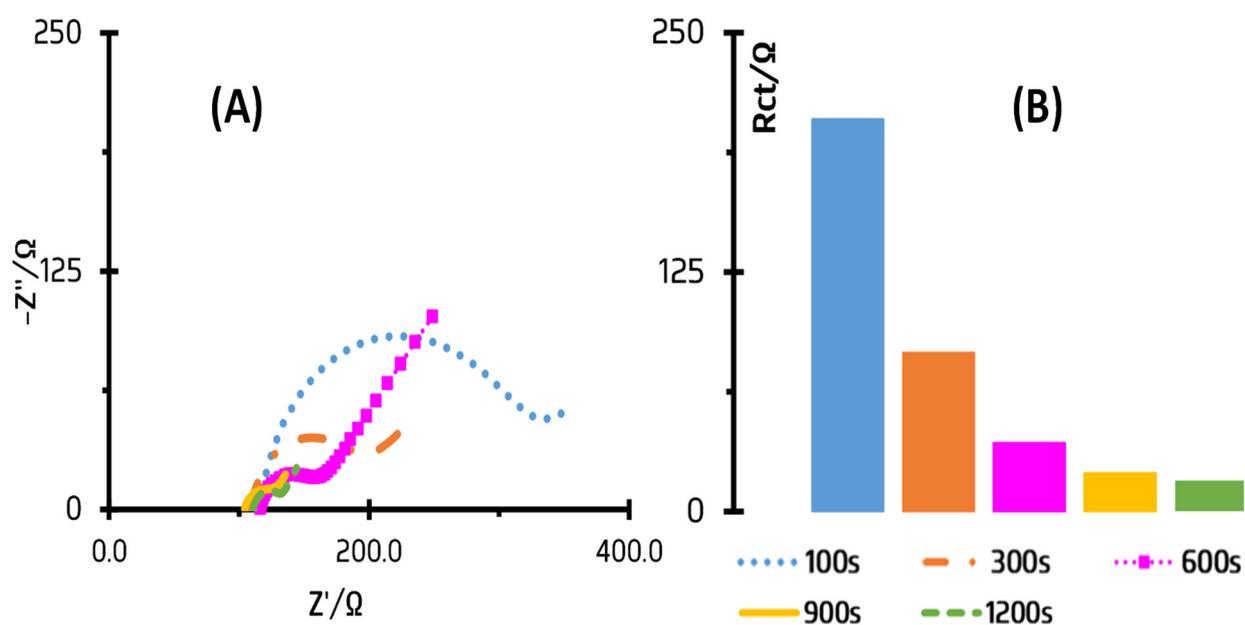


Figure S2 – (A) -Electrodeposition time curves at AuNPs modified C-SPE; (B) – Charge transfer resistance after electrodeposition.

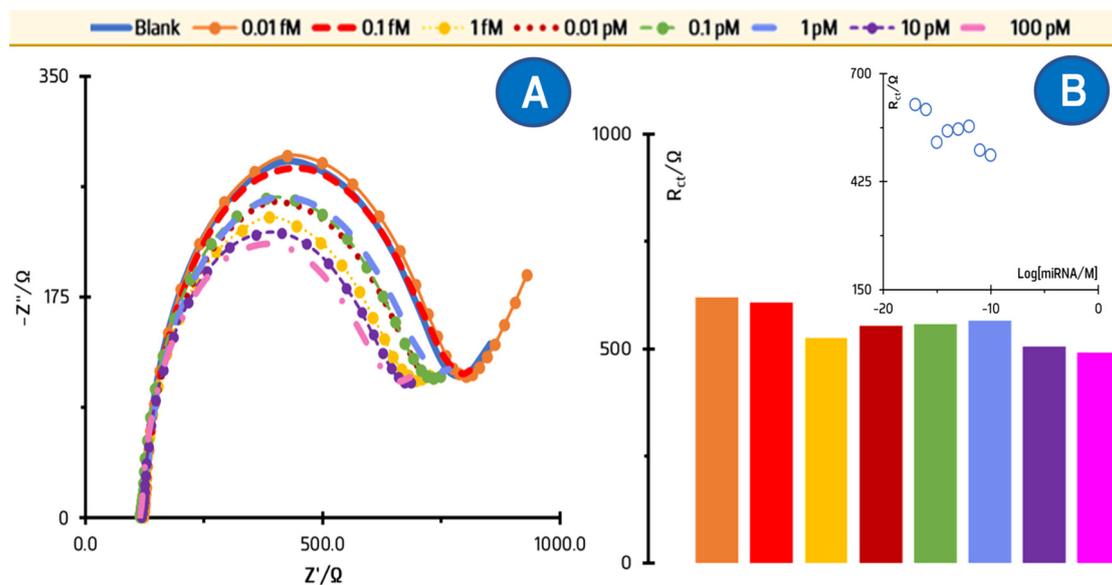


Figure S3- A- EIS changes corresponding to the different miRNA 21-5p concentrations; B- Charge transfer resistance of each concentration (100s AuNPs electrodeposition).

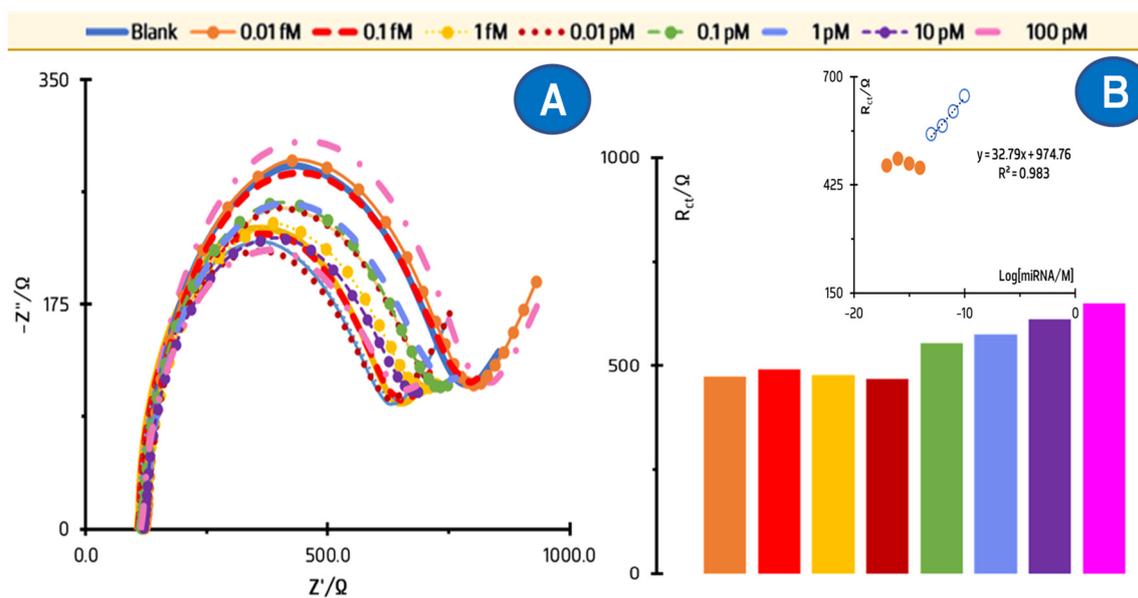


Figure S4-A- EIS changes corresponding to the different miRNA 21-5p concentrations; B- Charge transfer resistance of each concentration (300s AuNPs electrodeposition).

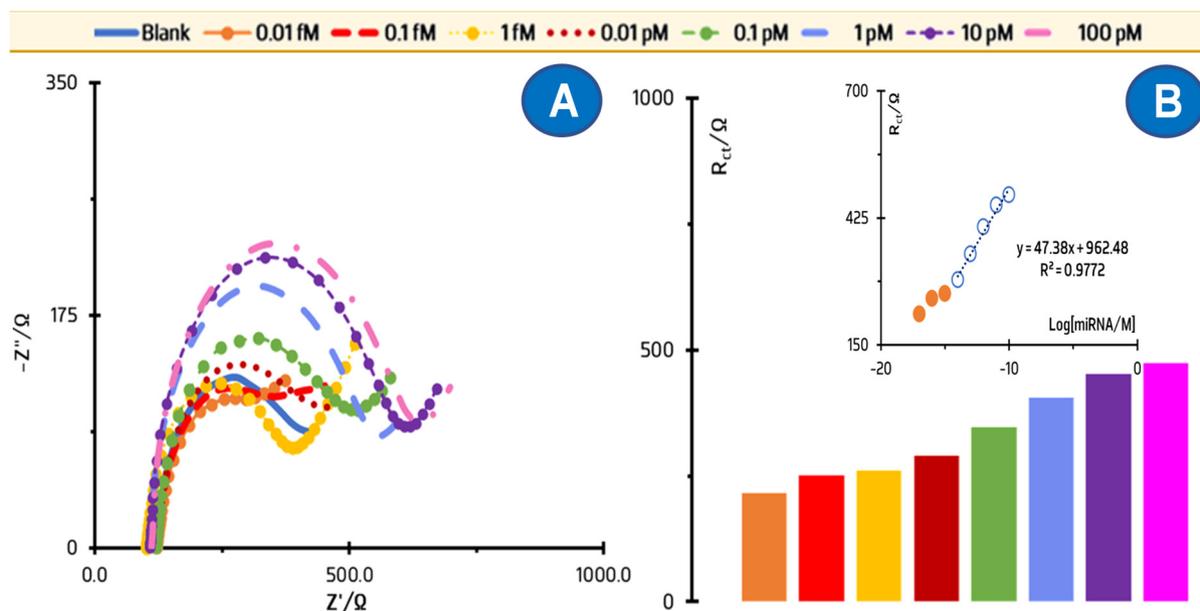


Figure S5: A- EIS changes corresponding to the different miRNA 21-5p concentrations; B- Charge transfer resistance of each concentration (600s AuNPs electrodeposition).

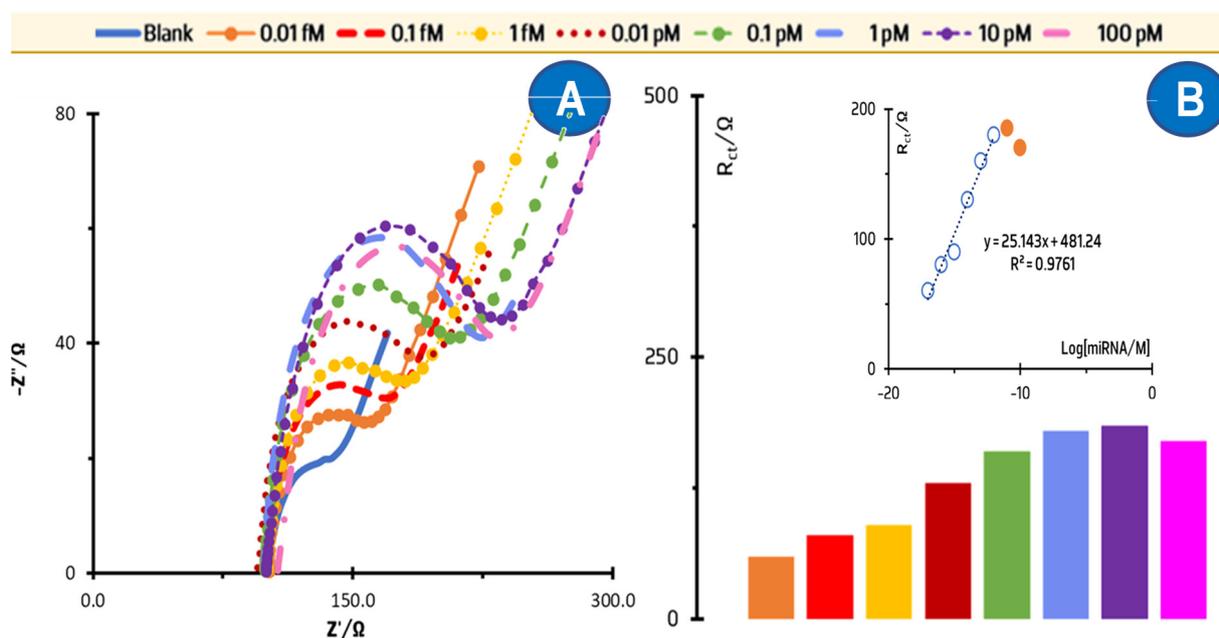


Figure S6- A- EIS changes corresponding to the different miRNA 21-5p concentrations; B- Charge transfer resistance of each concentration (1200s AuNPs electrodeposition).

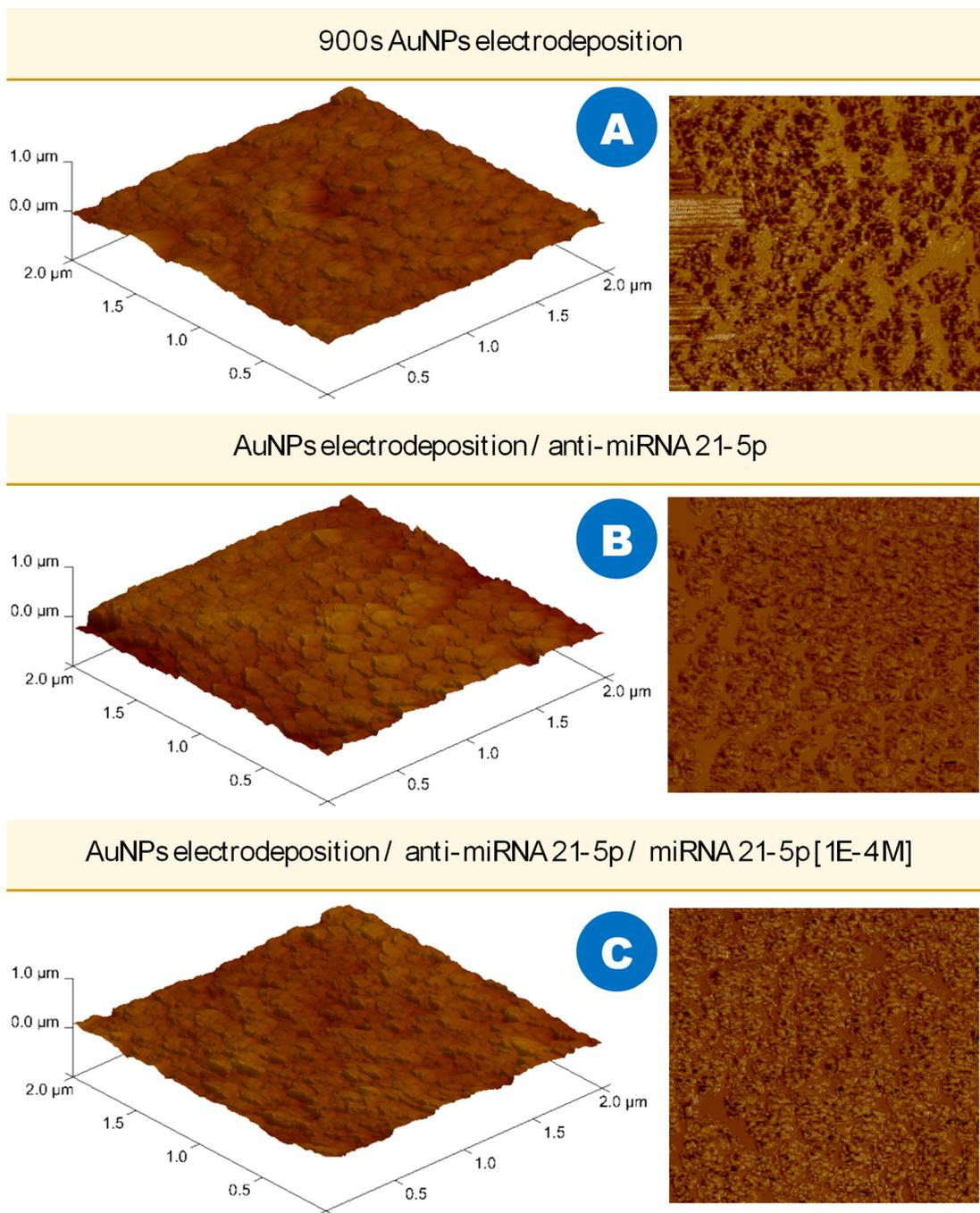


Figure S7: AFM scans of AuNPs electrodeposition in 3D (left) and 2D (right) views of the different stages. (A)- 900s AuNPs electrodeposition (B)- 900s AuNPs electrodeposition/anti-miRNA 21-5p (C)- 900s AuNPs electrodeposition/anti-miRNA 21-5p/miRNA 21-5p.