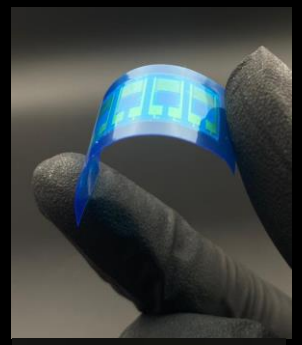
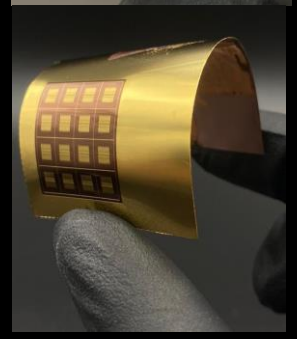
Seeking a partner for prototyping?





info@deepscientific.eu

(N) Need:

- Growing Demand for Advanced Diagnostic Tools
- Integration of Technology in Health Practices

(A) Approach:

- Development of Specialized Sensors and Monitoring Instruments
- Provision of Comprehensive Scientific Services and AI Integration

(B) Benefits:

- Enhanced Accuracy and Reliability in Health Research
- Versatile Applications and Knowledge Transfer

(C) Competition:

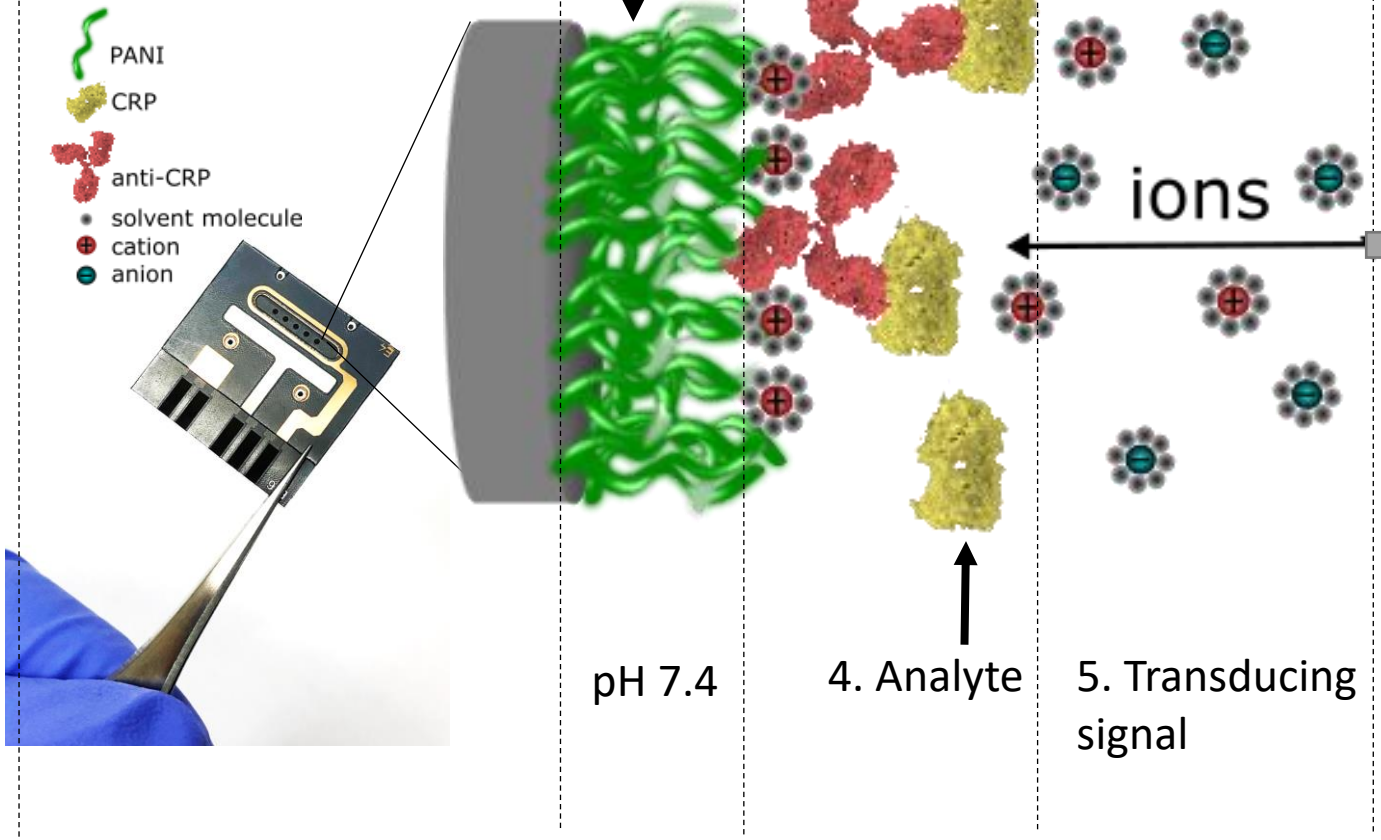
- Innovative Edge in a Competitive Market
- Comprehensive Range of Services

Scientific Deep

Marius Jakulis Jason foundation

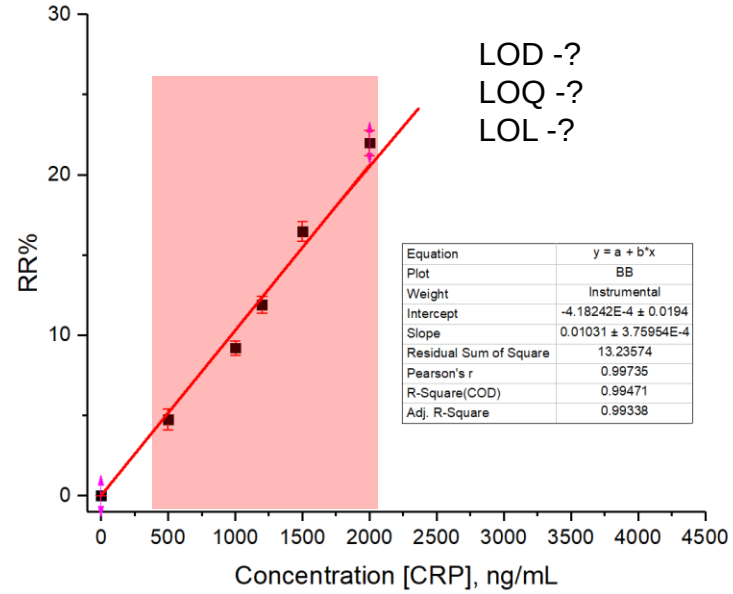
Electrochemical detection on miniaturised platforms

1. Selection of ingredients for sensing
2. Transducer
3. Receptor
Brewing water

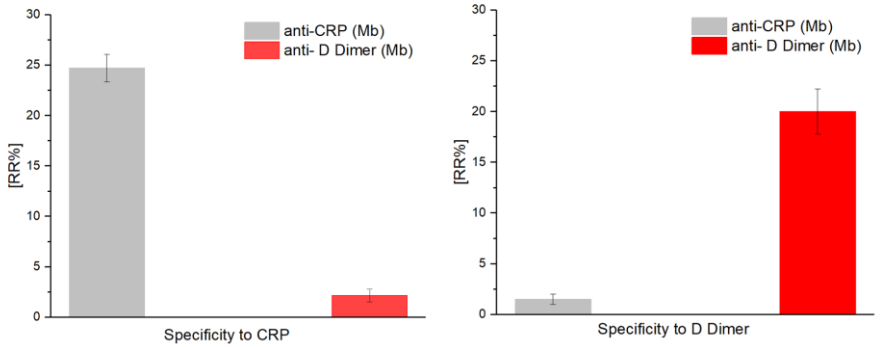


pH 7.4
4. Analyte
5. Transducing signal

6. Calibration in physiological range

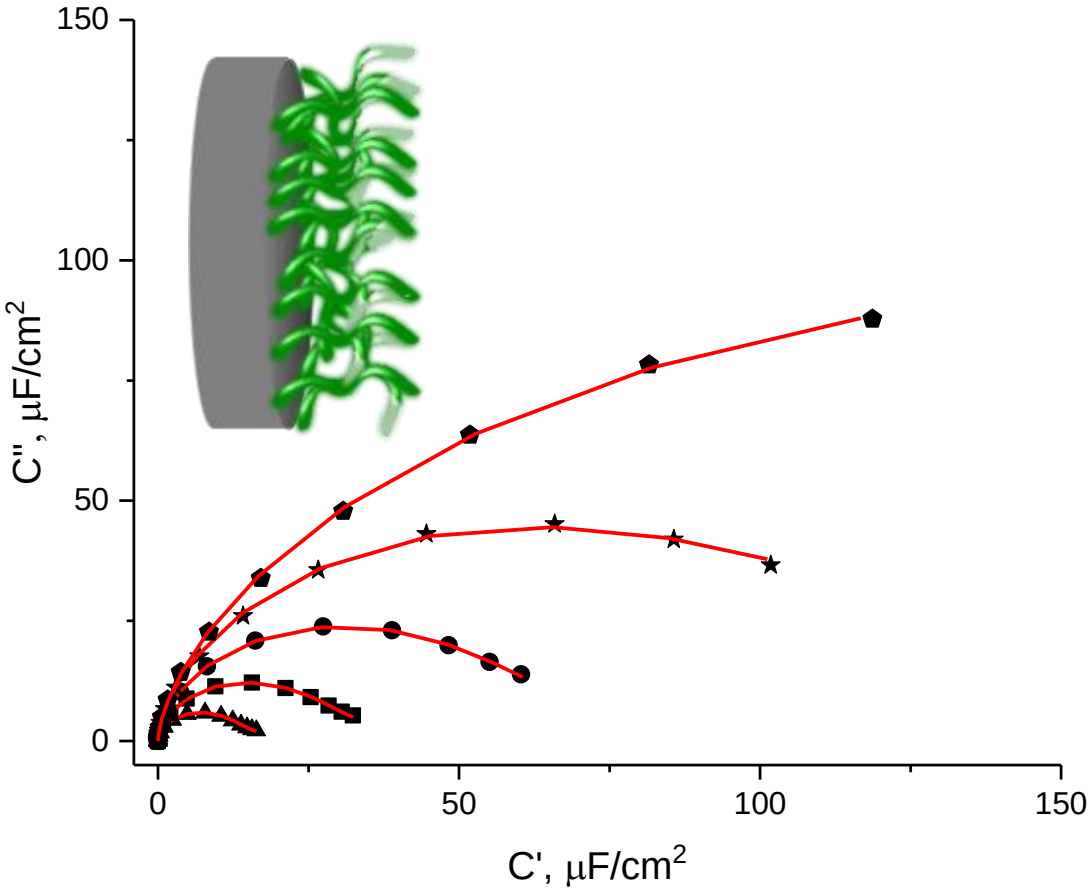


7. Specificity

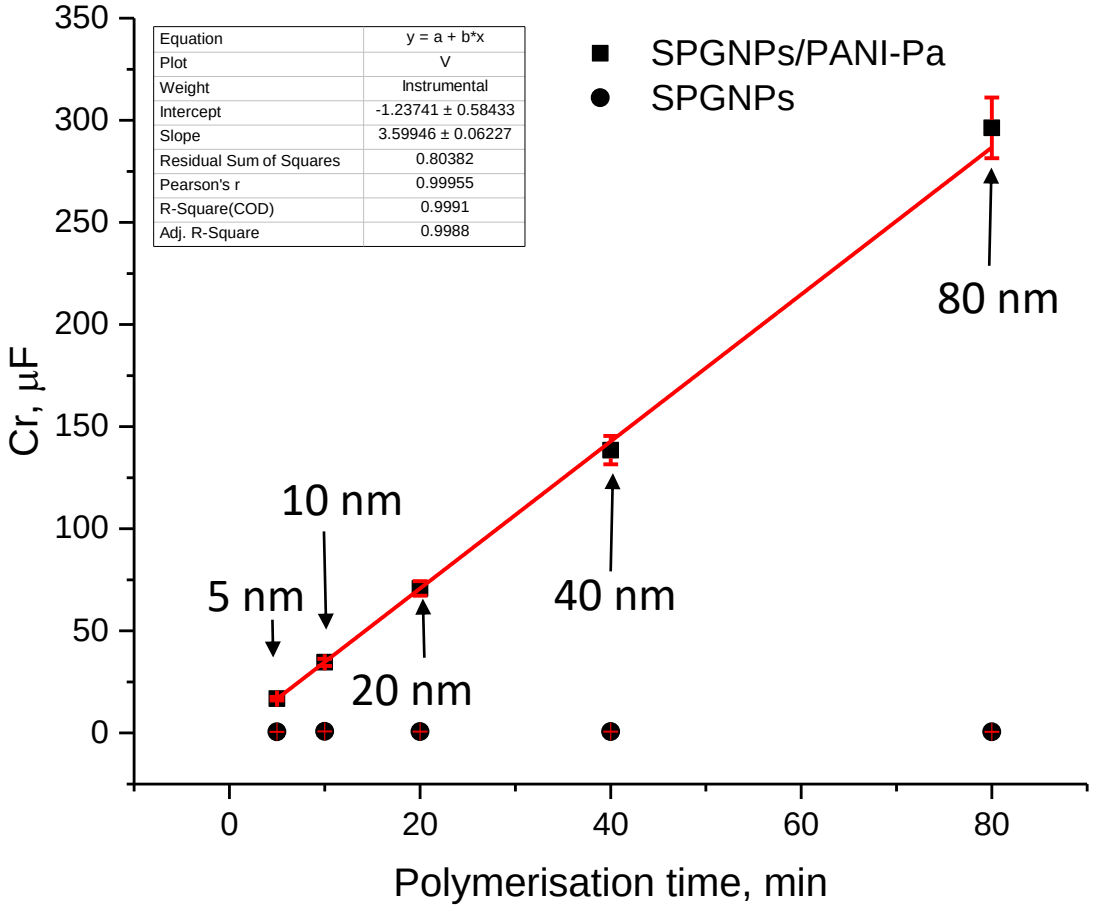


A. Baradoke, R. Hein, X. Li, J.J. Davis, Reagentless Redox Capacitive Assaying of C-Reactive Protein at a Polyaniline Interface, Anal. Chem. 92 (2020) 3508–3511. doi:10.1021/acs.analchem.9b05633.

Characterisation of PANI-PA as transducer

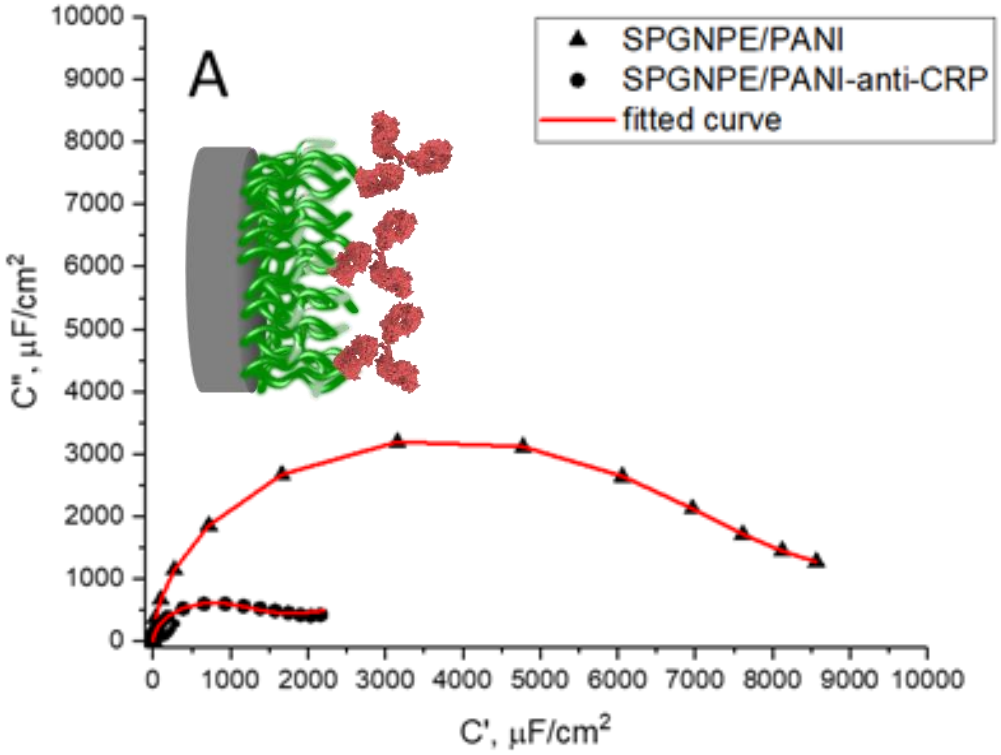


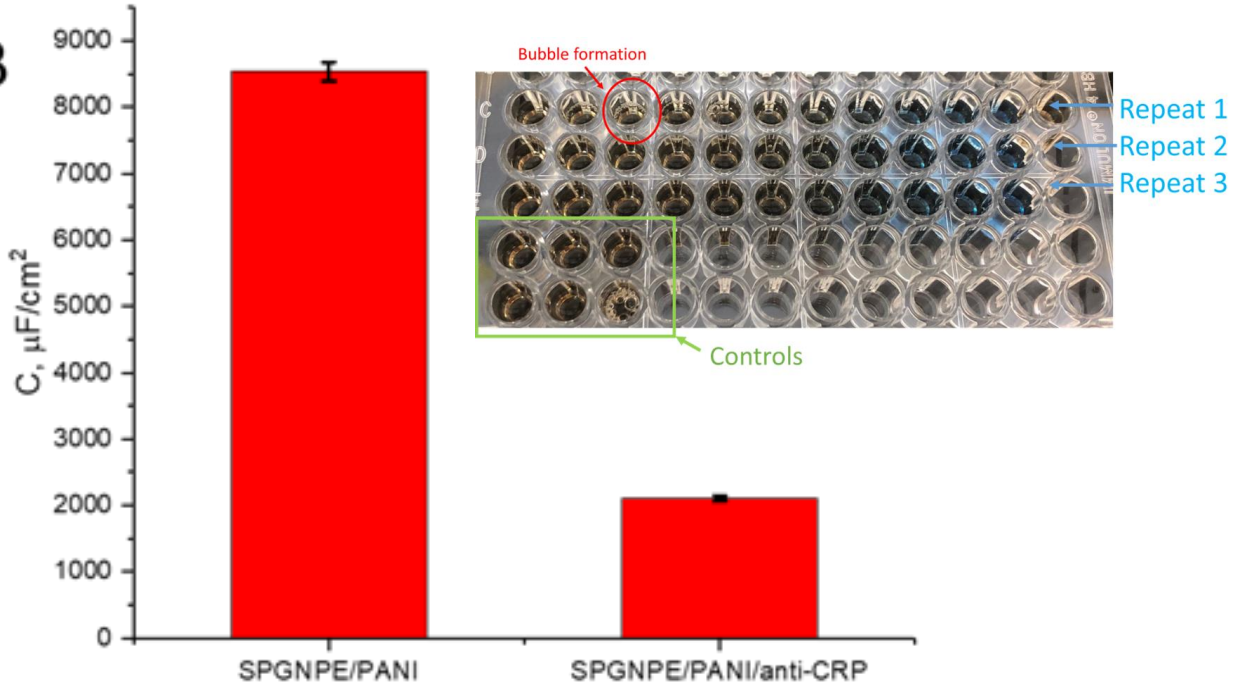
Nyquist plot semicircle increase when polymerisation time is increased, measurement in 7.4 pH PB at redox capacitance potential.



Redox Capacitance increases linearly with polymerisation time.

Evaluation of bioreceptor loading

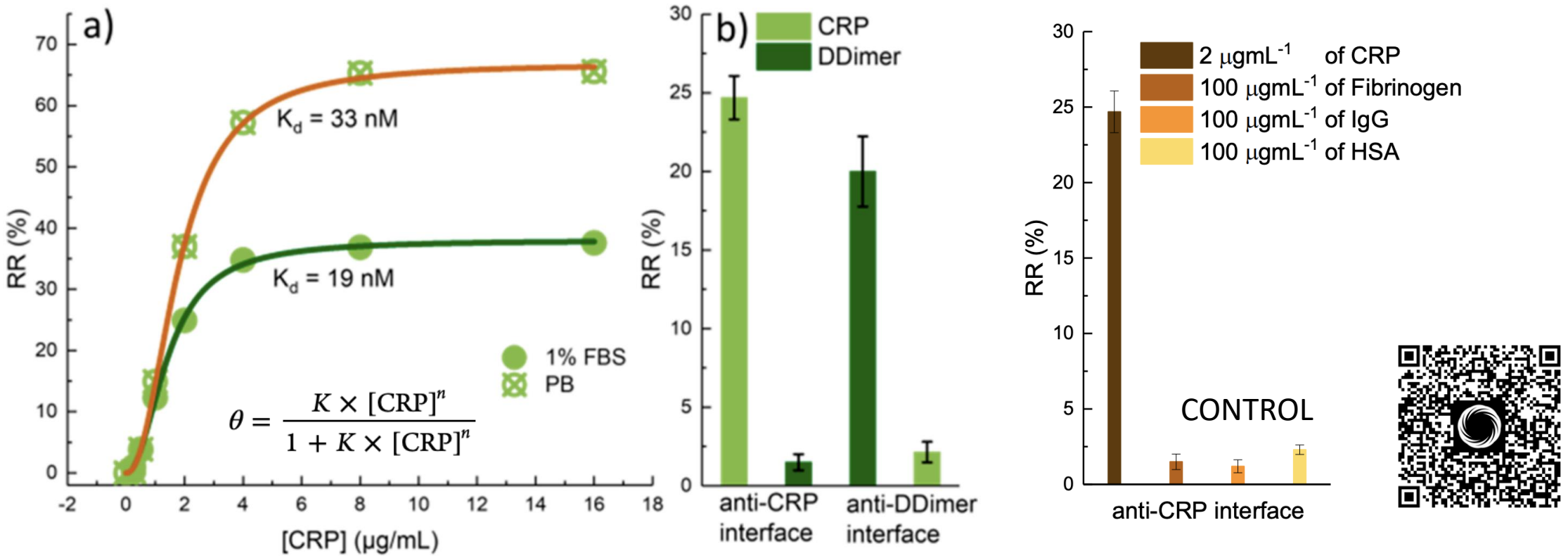




Capacitive Nyquist plots before and after anti-CRP loading - A, capacitive response decrease for 75 % demonstrating high loading of antibodies, as it was quantified using Bradford assay with a value of 909±82 ng/cm^2 - B. Error bar is STDEV from measurement.

Thanks Juan!

Electrochemical detection on miniaturised platforms



(a) Relative response of PANI-10 min/anti-CRP toward CRP in PB and in 1% of FBS in clinically relevant range. The data was fitted to a Langmuir–Freundlich isotherm. (b) Relative response of anti-CRP or anti-D-dimer-modified PANI-10 min after exposure to 2 µg/mL of CRP or D-dimer in 1% FBS. Error bars represent one standard deviation from independent measurements on different electrodes.