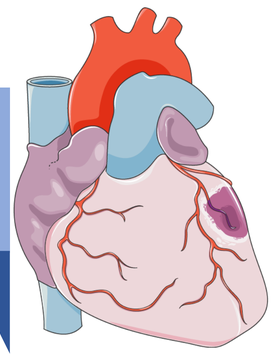
PLASTIC ANTIBODY FOR THE DIAGNOSIS OF ACUTE MYOCARDIAL INFARCTION



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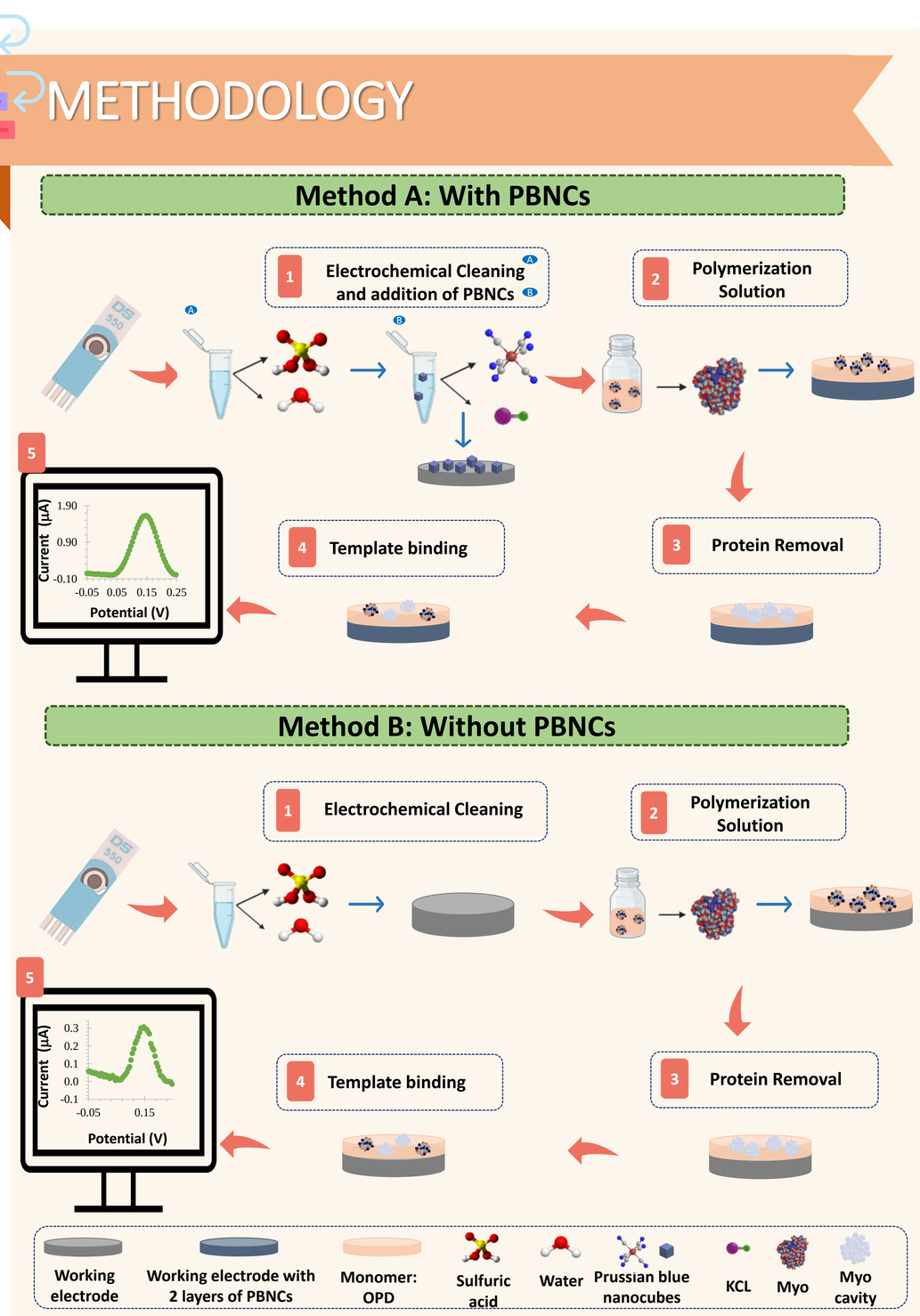
INTRODUCTION

- **Novel application Plastic Antibody that responds to a cardiac biomarker, myoglobin (Myo)**
- **Imprint stage with electropolymerization of ortho-phenylenediamine (OPD) in the presence of Myo**
- **Template removal from polymeric matrix digested by trypsin**
- **The films acted as biomimetic artificial antibodies and were fabricated on a screen-printed platinium (Pt) electrode (SPE) modified with electroactive Prussian blue nanocubes (PBNCs) to take a step towards disposable sensors for point-of-care applications**
- **The devices showed linear responses to Myo in SWV assays up to 0.01 and 10000 ng/mL**

METHODOLOGY

Method A: With PBNCs



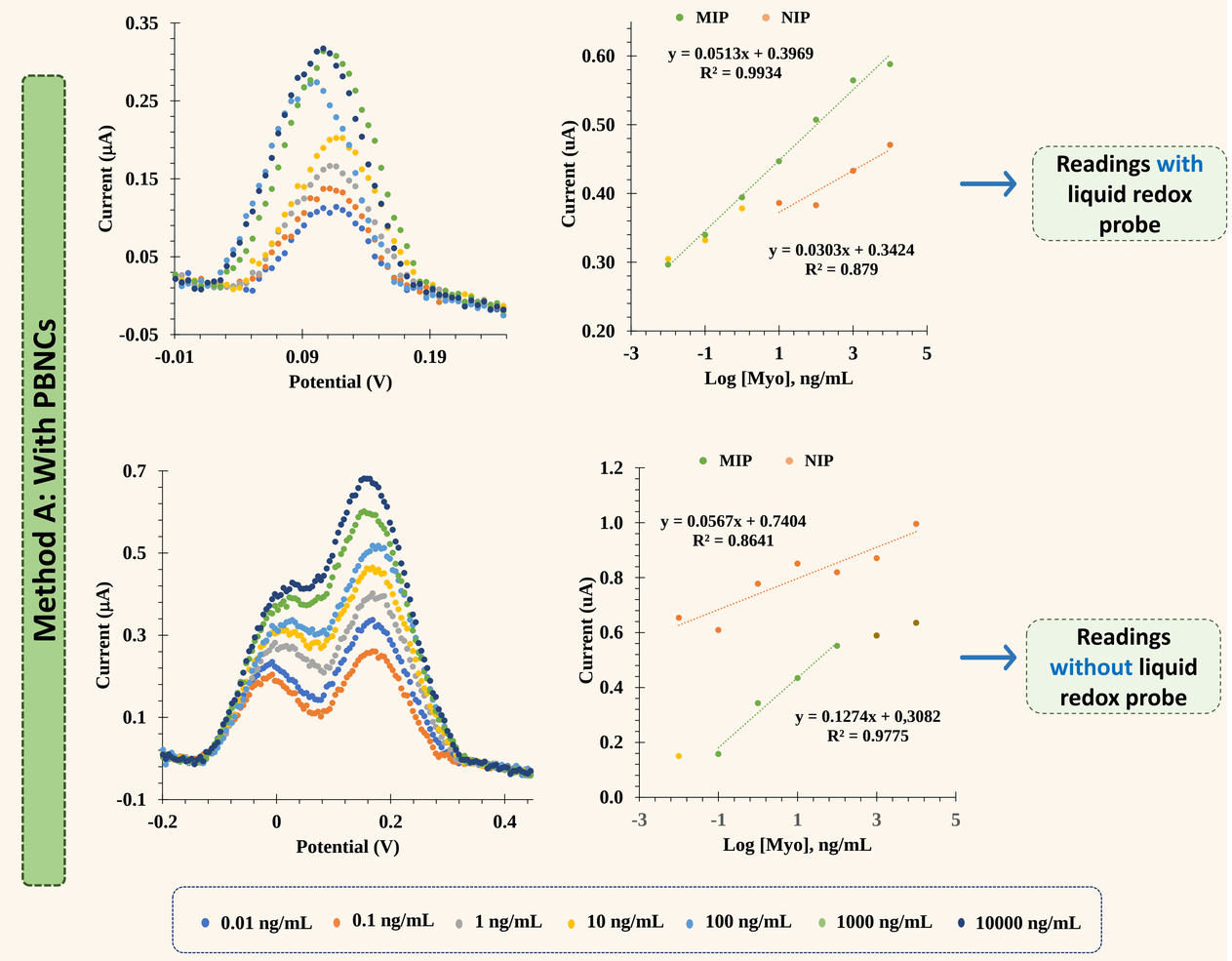
Method B: Without PBNCs

Schematic representation of a MIP for the detection of the Myo: **(1)** Work electrode pre-treatment; **(2)** electropolymerization of a solution containing Myo and monomer (OPD); **(3)** Myo removal from polymer matrix; **(4)** template binding on the MIP surface; **(5)** analytical performance of the sensor.

RESULTS

Electrochemical assembly of the biossensor

Analytical performance of the biossensor



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