Electronic Supplementary Material (ESI) for Analyst.
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SUPPLEMENTARY INFORMATION

Novel integrated and portable endotoxin detection system based on an electrochemical biosensor

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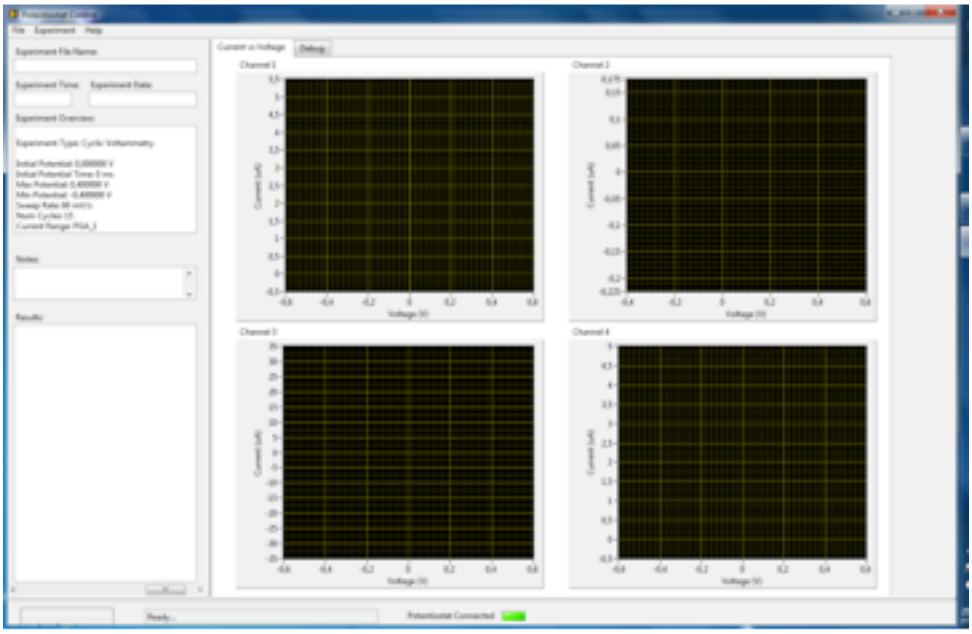
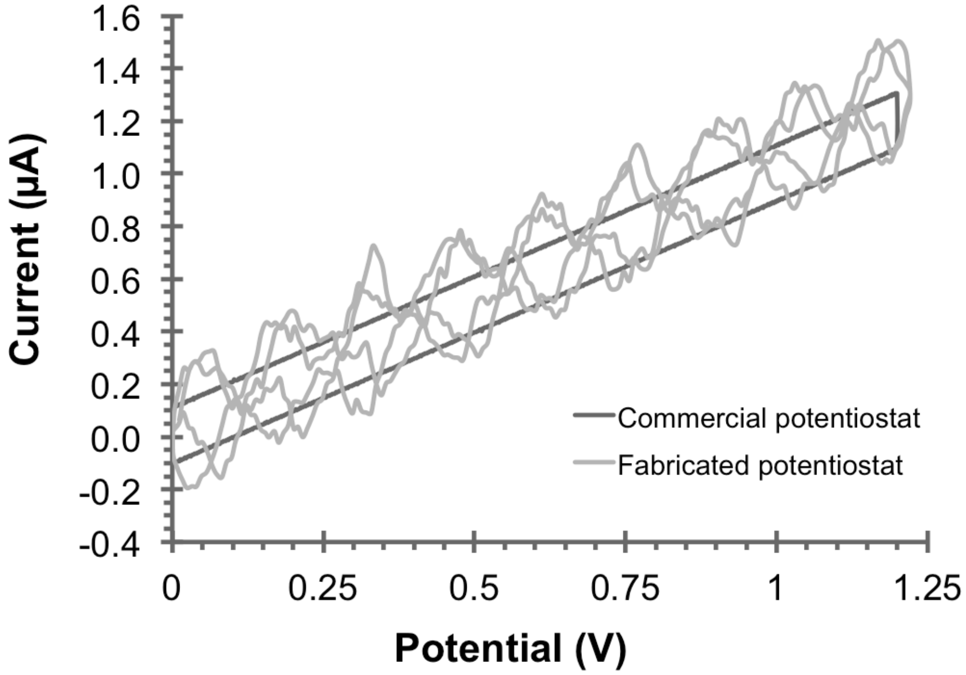
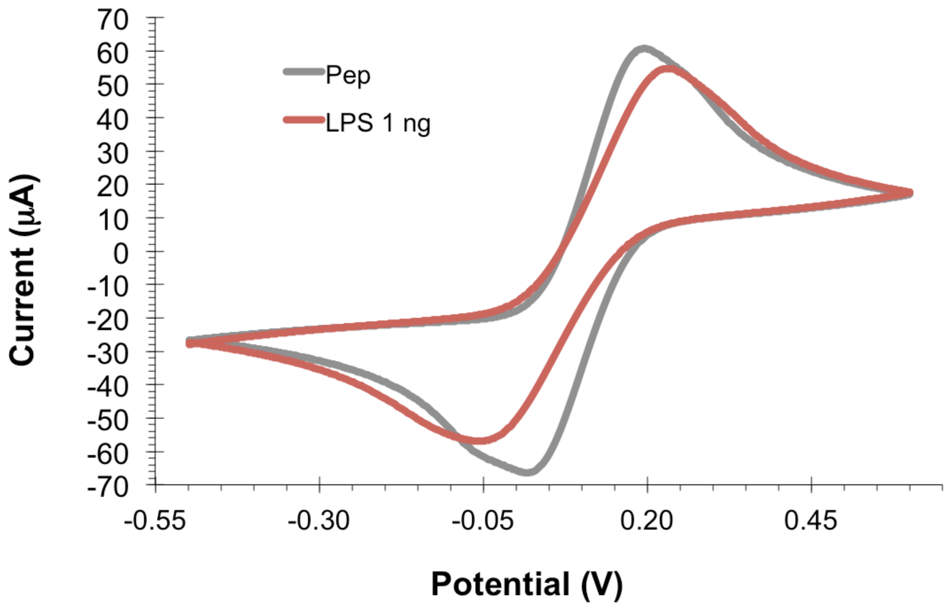


S1. Interface of the control, software of the portable potentiostat

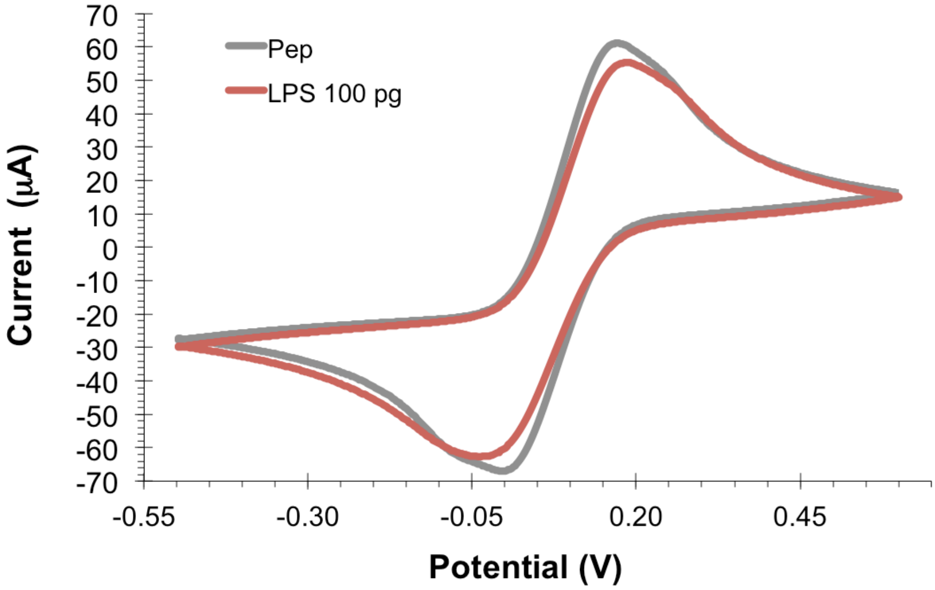
S2. Interface of the program where the experiment parameters are set



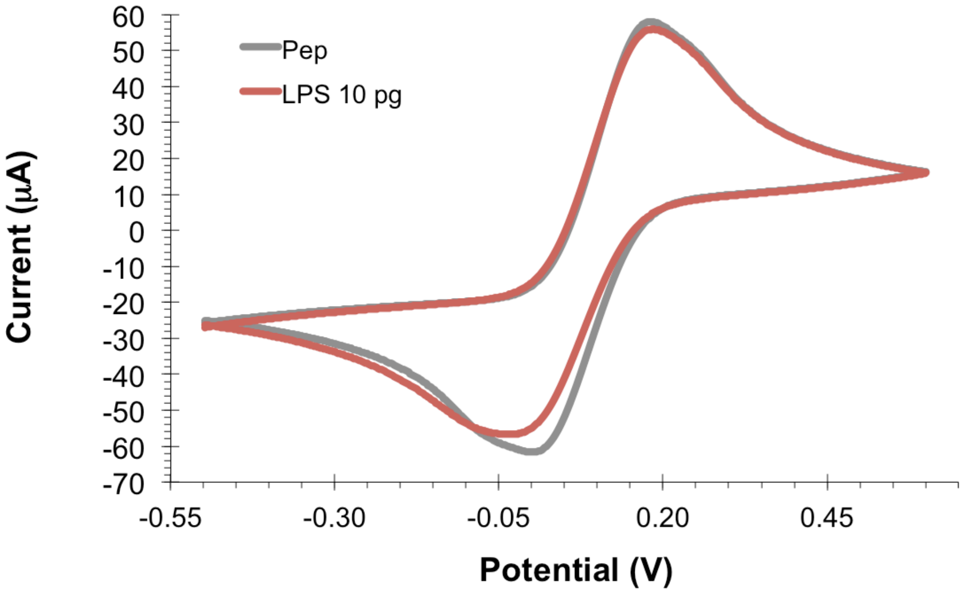
S3. Voltammograms of the dummy cell obtained with both the commercial and the fabricated potentiostat



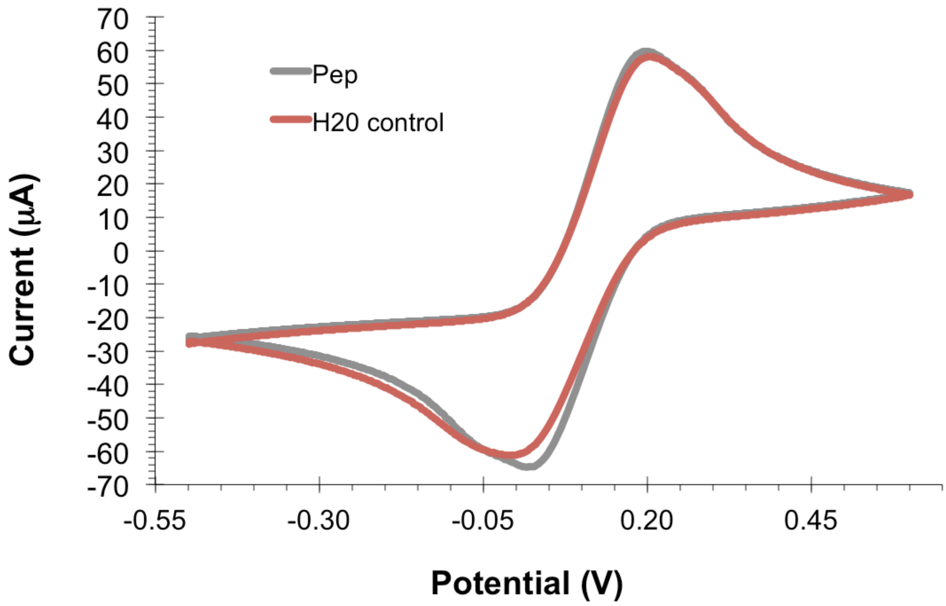
S4. Voltammograms of the immobilized bioreceptor (grey) and the biosensor after the detection of samples of 1 ng of LPS (red)



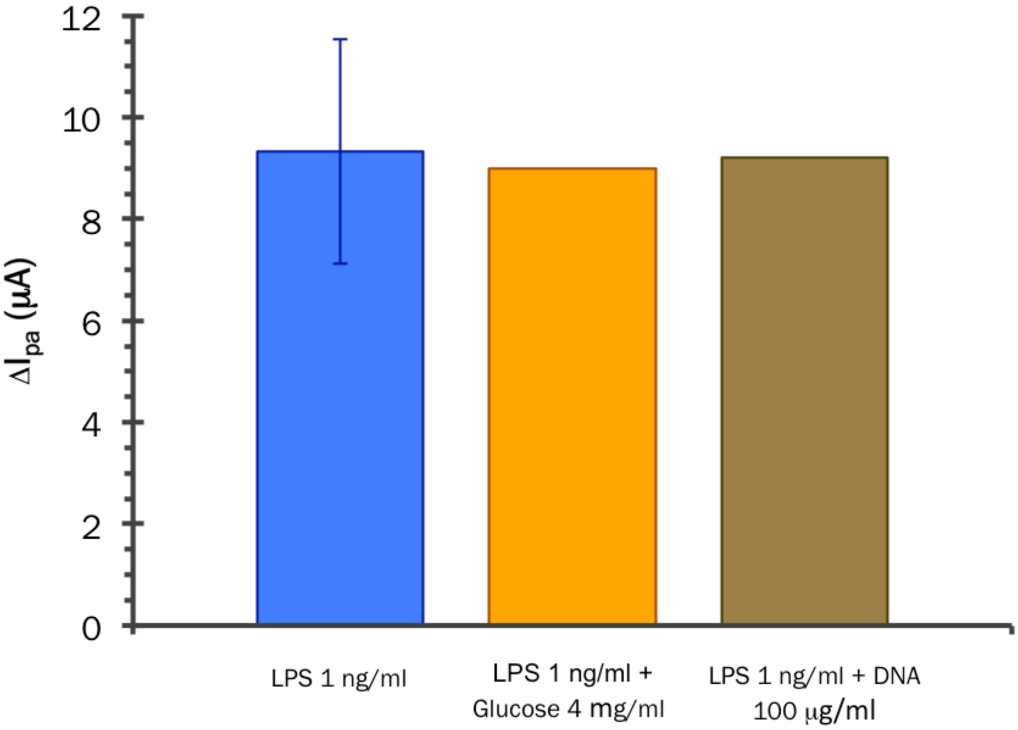
S5. Voltammograms of the immobilized bioreceptor (grey) and the biosensor after the detection of samples of 100 pg of LPS (red)



S6. Voltammograms of the immobilized bioreceptor (grey) and the biosensor after the detection of samples of 10 pg of LPS (red)



S7. Voltammograms of the immobilized bioreceptor (grey) and the biosensor after the detection of pyrogen-free water control samples (red)



S8. Output signal of the biosensor obtained in the study of interfering molecules. Response to LPS (blue), to LPS + glucose (orange) and to LPS + DNA (brown)

Supplementary Tables

DC Voltage range	± 2.048 V
Current range	± 1 nA to ± 250 µA
Power supply	5V / 500 mA max (by USB)
Precision	≤ 0.1 %
Resolution	1 mV

T1. Specification parameters of the fabricated potentiostat-galvanostat

Working ranges			
Cyclic voltammetry		Differential Pulse Voltammetry	
Sampling range	1 mV/s to 5 V/s	Pulse amplitude	5 mV to 250 mV
DC Voltage range	± 1.65 V	DC Voltage range	± 1.65 V
		Pulse increase	1 mV to 40 mV

T2. Working parameters of the fabricated potentiostat-galvanostat