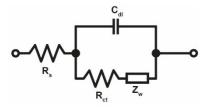
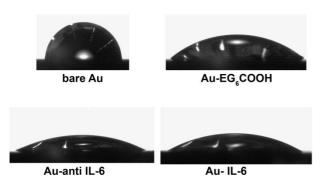
## **Electronic Supplementary Information**

## Integration of Organic Electrochemical Transistors and Immuno-Affinity Membranes for Label-Free Detection of Interleukin-6 at the Physiological Concentration Range through Antibody-Antigen Recognition

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**Figure S1.** Randles equivalent circuit: dynamic solution resistance (Rs), double layer capacitance measured between the gold electrode and the electrolyte solution (Cdl), charge transfer resistance (Rct) and Warburg Element (Zw).



**Figure S2.** Static water contact angle measurements of gold-coated substrates after each functionalization and incubation steps.

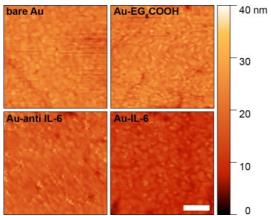


Figure S3. AFM images (scale bar: 200 nm) of a gold-coated surface after each functionalization and incubation step.

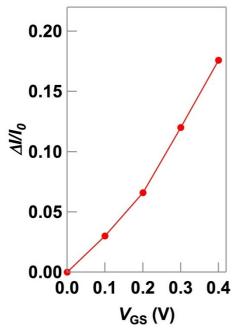


Figure S4.  $\Delta I/I_0$  parameter as a function of  $V_{GS}$  ( $V_{DS}$  at -0.1 V) of OECT working with bare Au gate electrode