UNIONE EUROPEA
Fondo Sociale Europeo

Ministero dell'Istruzione, dell'Università e della Ricerca

PON RICERCA E INNOVAZIONE 2014 - 2020

DOT1302393
CUP: H94F18000250006

PhD student: **Lucia Sarcina**
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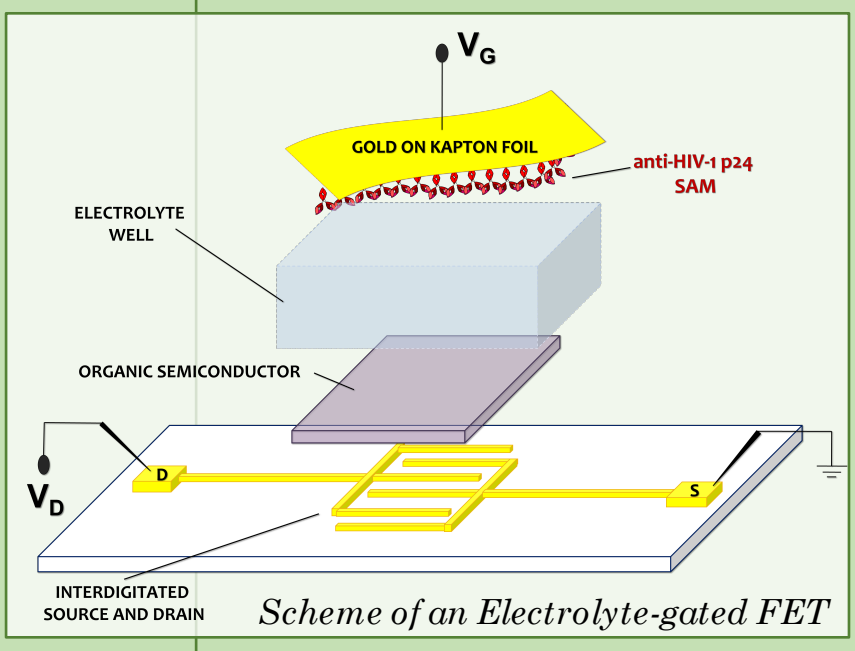
Disposable bio-electronic HIV sensor powered by a bio-fuel-cell

Main purpose of the PhD activity



Scheme of an Electrolyte-gated FET

The PhD project is focused on the design a disposable rapid-test, using plastic or paper substrates, based on a bioelectronic label-free sensors known as Electrolyte-gated Organic Field-effect Transistor (EGOFET). The sensing mechanism will derive from the specific binding of the antibody with its affinity ligand (HIV-1 p24 antigen). The transistor can be self powered by a bio-fuel-cell entirely made of inexpensive and biodegradable materials.

PON RI 2014-2020
Dottorati innovativi con caratterizzazione industriale
ASSE prioritario I
"Investimenti in Capitale Umano"
Azione I.1(34° ciclo)

Industrial Partner

MASMECBiomed aims to create medical and biotech devices to improve the care grade for patients and the daily-work of specialists.

Within the PhD project they will collaborate in the prototype design.

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Industrial partner: MASMECBiomed
Ing. Pietro Larizza
www.masmecbiomed.com/

PhD in Chemistry
XXXIV cycle

UNIVERSITÀ DEGLI STUDI DI BARI ALDO MORO

MASMEC BIOMED