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UNIVERSITÀ DEGLI STUDI DI NAPOLI FEDERICO II

**DOTTORATO DI RICERCA / PHD PROGRAM IN  
INFORMATION TECHNOLOGY AND ELECTRICAL ENGINEERING**

## **Seminar announcement**

**Thursday 20 May 2021, Time: 09:00 - 10:30**

**"Seminari di Elettromagnetismo per Ing. Biomedica LM"**

**Platform Microsoft Teams - Teams code wyesrid**



**Dr. Emanuela Signori**

**Consiglio Nazionale delle Ricerche**

Istituto di Farmacologia Traslazionale (IFT)

[lapmos.ift.cnr.it](http://lapmos.ift.cnr.it) (Company Website)

# **Strategie terapeutiche innovative in campo immunologico: l'elettroporazione per la veicolazione di molecole farmacologiche**

**Abstract:** Electroporation (EP), also named electropermeabilization, is an efficient and safe technique which is based on voltage pulses of sufficient strength and duration to generate transient membrane permeabilization/poration, thus allowing to introduce genetic material (gene electrotransfer-GET) or therapeutic drugs (electrochemotherapy-ECT) into target cells. Due

to EP further ability to induce per se an immune response, it can be applied for genetic immunization/vaccination both in cancer and infectious diseases, or to deliver chemotherapeutics into tumors inducing immunological cancer cells death.

The lecture will give a brief overview on immune response mechanisms and a focus on GET and ECT

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protocols on-going. Advantages, weakness and EP will be also discussed.  
possible optimizations of drug delivery based on

**Lecturer short bio:** Emanuela Signori, Phd, leads the Laboratory of Molecular Pathology and Experimental Oncology at the National Research Council (CNR)-Institute of Translational Pharmacology- and is Acting Professor of General Pathology at University Campus Bio-Medico of Rome, Dept Faculty of Medicine. She received her PhD in Experimental Oncology and Molecular Pathology. Her major research interest is in cancer immunotherapy for the development of preclinical protocols of DNA immunization administered by electrotransfer.

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