# Università di Roma "Tor Vergata"

#### Dipartimento di Scienze e Tecnologie Chimiche

Via della Ricerca Scientifica, 1 - 00133 Roma (IT) - Tel +39 06 72594337 Fax +39 06 72594328

## **AVVISO DI SEMINARIO**

Il Prof. Bruno Pignataro Dipartimento di Fisica e Chimica, Università di Palermo

Lunedì 27 Febbraio ore: 15:00

Nell' Aula seminari del Dipartimento di Scienze e Tecnologie Chimiche

Terrà un seminario dal titolo:

Printing Biology: new methodologies for biosensing and screening devices

Proponente; Prof. F. Ricci



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### Printing Biology: new methodologies for biosensing and screening devices

Bruno Pignataro, Dipartimento di Fisica e Chimica, V.le delle Scienze, Ed. 17 Palermo, Italy (bruno.pignataro@unipa.it)

The term "Printing Biology" defines a novel field employing material printing techniques generally used in plastic electronics to solve important issues of biology and biotechnology by miniaturized and high-throughput platforms.

In this talk, the use of dip pen lithography to fabricate single-cell biochips and of non-contact patterning techniques such as inkjet printing to develop microarrays for biosensing and drug screening devices will be highlighted. In addition to greatly cost and time reduction with respect to standard drug screening and biosensing systems, the possibility to precisely deliver femtoliter scale water droplets in oil enables to artificially reproduce scalable cellular-like compartments on a chip, thus realizing specialized small volume systems to study the behaviour of interacting biomolecules up to few binding events in tailored environments.