

ENGINEERING BIO-INTERFACES AND RUDIMENTARY CELLS AS A WAY TO DEVELOP SYNTHETIC BIOLOGY

Aims and scope

The bioengineering has been fundamental in both regenerate medicine and the understanding of biochemical mechanisms involved in life appearance and maintenance. The aim of this special session is to bring together theoretical researchers interested in cutting-edge methods to address the challenges posed by the huge amount of data produced in omics sciences and in application to systems and synthetic biology and experimental researchers with interests on develop experimentally new approaches of synthetic biology for biomedical and biotechnological applications like implants, artificial organs, advanced medical systems, drug delivery systems and sensors. The track of this SS aims to present latest experimental advancements concerning synthetic biology. Relevant topics within this context include, but are not limited to:

- physical interactions between biological molecules,
- effect of radiation and plasma in biological tissues,
- cell-nanomaterials interactions,
- molecular aspects of membrane assembly and transport,
- communication between cells,
- biosensors at micro and nanoscales,
- drug delivery systems,
- liposomes and encapsulation of molecules,
- synaptic transmission,
- artificial organs and contractile systems.

Session chairs

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