“Organic Electronics at the Interface with Life Sciences”

Monday – November 12, 2012 – 12:00.
EPFL – room SV1717a

Prof. George Malliaras
Department of Bioelectronics
Centre Microélectronique de Provence
Ecole Nationale Supérieure des Mines de Saint Etienne
France

host: Prof. Stéphanie Lacour

Abstract
The emergence of organic electronics has brought to the forefront materials and devices that are ideally suited to interface electronics with biology: The “soft” nature of organics offers better mechanical compatibility with tissue than traditional electronic materials, while their natural compatibility with mechanically flexible substrates suits the curvilinear form of organs. More importantly, the ability of these materials to conduct both electronic and ionic charges opens up a new communication channel with biology. Examples will be presented of the application of organic electronics in neuroscience, tissue engineering, and medical diagnostics, while the implications for the design of materials and devices will be highlighted.