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Biomedical Applications of Organic Electronics

Carbon, the second most abundant atom in human body, is the founding element of life in earth. In this talk I will discuss the opportunity to merge biology and semiconductor technology into a new realm of applications from medical healing to clinical diagnostic or food tracking. Edible devices can be designed and fabricate, while prosthesis are tested in vivo. As an example the recent achievements of the organic artificial retina project will be here reported. Having successful results on lab animals the project is heading to the first in man experiment, possibly as soon as 2018.

About Prof Guglielmo Lanzani

Prof Guglielmo Lanzani is Director of the Center for Nano Science and Technology (CNST) of Instituto Italiano di Tecnologia (IIT) at Politecnico di Milano and Professor of Physics at the Department of Physics of Politecnico di Milano. He graduated in Solid State Physics at Università di Milano in 1987 and received his PhD in Chemical Physics at Università di Genova in 1991. After a post doc at CNR in Bologna, he was Teaching Assistant at the Instituto di Matematica e Fisica of the Università di Sassari for five years.

Prof Lanzani research activity regards the science and technology of nanostructured and molecular materials (organic semiconductors, carbon nanotubes and semiconductor nanocrystals). The main areas of experimental work are photophysics, optoelectronics and photonics, for application in energy, neuroscience and medicine. The activity is documented by more than 260 papers in international journals, it was presented in 100 invited talks at international conference and resulted in five patents. He is author of the book “The photophysics behind Photovoltaics and Photonics” for Wiley-VCH and he is currently involved in teaching basic physics and advanced courses at the engineering school of Politecnico di Milano.

Prof Lanzani’s talk will cover research areas which he presented at TEDXRoma in 2016. [https://www.youtube.com/watch?v=AF7L8-0RN_0](https://www.youtube.com/watch?v=AF7L8-0RN_0)