



# Nanobiotechnology: towards a true Molecular Biology

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Nanotechnology provides a very broad range of methods and techniques that impact virtually all fields of experimental research and most industrial sectors. This pervasiveness stems from the very nature of this technology that allows us to artificially tailor the electronic properties of any material. Indeed a unifying approach can now be applied to the investigation and optimization of materials as diverse as semiconductors and proteins.

In this presentation I shall focus on biomedical research and the related diagnostic and therapeutic applications. Recent results will be discussed that highlight the impact of nanobiotechnology in these fields and its ability to monitor and control biological processes to the ultimate limit of the single molecule and single biological event. A particular emphasis will be given to methods suitable for studies *in vivo* that can be transferred to the biomedical world.

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**15:00**

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