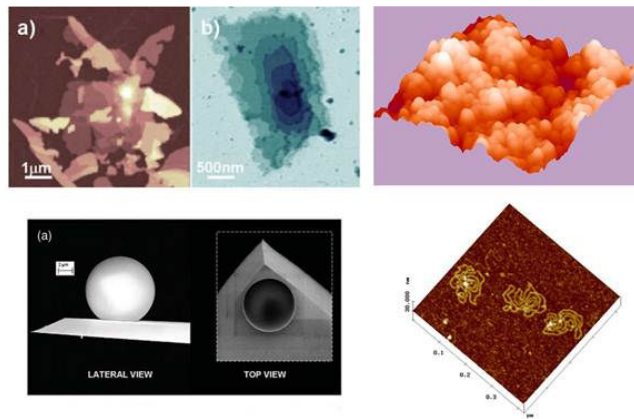


LGM - Molecular Beam and Nanocrystalline  
Materials Laboratory,

CIMaINa - Interdisciplinary Centre for Nanostructured  
Materials and Interfaces,

Dept. of Physics, University of Milano.



## Public competition for POST-DOC fellowships, University of Milano

A competition for POST-DOC TWO-YEARS FELLOWSHIPS has been launched (deadline 15/02/2012) by Università degli Studi di Milano, Italy. The call is addressed to PhD-awarded young scientists. Information about how to participate and about the available fellowships are provided here: [http://www.unimi.it/ricerca/assegni\\_ricerca/38841.htm](http://www.unimi.it/ricerca/assegni_ricerca/38841.htm). In particular, candidates may compete for a grant supporting research activity on:

### Study of the interaction of biological entities (DNA, proteins, biomembranes) with nanostructured surfaces and systems by scanning probe microscopy

This project is aimed at the study of biologically relevant interfaces at the nanoscale, by means of atomic force microscopy combined with other surface analysis techniques (electron, optical and vibrational spectroscopy, fluorescence microscopy) and strategies for the synthesis, patterning and functionalization of nanomaterials.

The following topics can be the object of the investigation:

- **Protein-surface interaction.** Characterization of physico-chemical properties that mainly affect local adhesion of proteins on nanostructured surfaces in a physiological environment, such as surface charge density, wettability, adhesion, isoelectric point, surface morphology, and identification of mechanisms of protein-surface interaction at the base of the biocompatibility of nanostructured surfaces.
- **Nanotoxicity.** Study of the interaction of reconstituted biomembranes with engineered nanoparticles and ionic liquids.
- **Nanodiagnosics.** Local characterization of the cellular elasticity in response to external stimuli and environmental changes; correlation of the morphological and mechanical properties of cells with the health of the cell or of the tissue of origin.

A detailed description of the research activity can be found here:

[http://www.fisica.unimi.it/postdoc2012/tematiche/scheda\\_argomenti\\_Podesta\\_2012-ENG.pdf](http://www.fisica.unimi.it/postdoc2012/tematiche/scheda_argomenti_Podesta_2012-ENG.pdf).

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