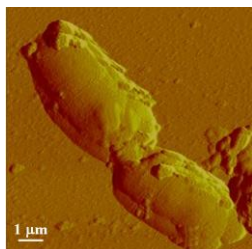


MEMBRANES-CELLULAR MECHANICS WORKSHOP

18th March 2016

Faculty of Medicine, University of Barcelona



E.coli AFM Image
(by O.Domènech)

The MEMBRANES-CELLULAR MECHANICS workshop is an initiative organized by the Nanoscience and Nanotechnology Institute of University of Barcelona, **IN²UB**, with the aim to put together brand new research and knowledge in the field of Cellular Mechanics, which is known to play a crucial role in the cell homeostasis including proliferation, motility, and differentiation.

We will count with the expertise of some researchers devoted to investigate biological and biophysical processes at the top of science. Finally, **Nanosurf**, a Swiss-based high-tech company providing scanning probe microscopes to customers around the globe will introduce us its **Artidis project**, which has been delineated for cancer diagnostics, based on the AFM (Atomic Force Microscopy) technique.

Invited Speakers:

Dr. Manfred Radmacher from Biophysics Institute at Bremen University (Germany)

Dr. Lewis Francis from Institute of Life Sciences at Swansea University Medical School (UK)

Dr. Pierre-Emmanuel Milhiet from Single Molecule Biophysics Department at CBS/CNRS/INSERM (Montpellier, France)

Dr. Gabriel Gomila from Bioelectrical Characterization at Nanoscale at IBEC (Spain)

Dr. Daniel Navajas from Cellular and Respiratory Biomechanics Group at IBEC (Spain)

Dr. Christian Bippes from Nanosurf.

Program: at the Paranimf

9-9:30h Registration

9:30-10h Welcome (Dr. Jordi Borrell, IN²UB Director) and Presentation (Dra. Neus Agell, Research Vice-Dean at Faculty of Medicine, University of Barcelona)

10-10:30h Dr. Daniel Navajas. *Extracellular matrix nanomechanics*.

10:30-11h Dr. Manfred Radmacher. *Cell Mechanics in Diseases*.

11-11:30h Dr. Lewis Francis. *Uterine biophysics; nanoscale form and function*.

Coffee break (3th floor)

12-12:30h Dr. Pierre-Emmanuel Milhiet. *Recent advances in correlative atomic force-fluorescence microscopy*.

12:30-13h Dr. Gabriel Gomila. *Nanoscale dielectric properties of cell membrane components*.

13-14h Dr. Christian Bippes.

Lunch (3th floor)

15-17h Demo session Nanosurf Flex-ANA for automated nanomechanical analysis.

Registration: <https://form.jotformeu.com/60403209635348> (extended deadline: 14th March)

Contact: bio-afm-in2ub@ub.edu

Venue: Paranimf, Faculty of Medicine, University of Barcelona. C/ Casanova, 143, Barcelona ([Map](#))