



AFMBioMed Conference: Paris, France, August 2011

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AFMBioMed Conference: Paris, France, August 2011

The fourth edition of the *AFMBioMed Conference, Paris 2011* was organized by the Institut Curie, INSERM, and the Life Science Division of the CEA (DSV). The conference was held at the Institut Curie, Paris, France on 23–26 August and chaired by Dr Simon Scheuring.

Founded in June 2006, AFMBioMed Conference brings researchers and students around the world to discuss the latest scientific results of Atomic Force Microscopy in Life Science and Medicine (Parot *et al.*, 2007). AFMBioMed organized its first international meeting in Barcelona, Spain, in 2007 (Pellequer *et al.*, 2007) followed by a second edition in Monterey, CA, USA, in 2008 (Kumar *et al.*, 2009) and a third one in 2010 on the Crveni otok (Red Island) near the Adriatic city of Rovinj, Croatia (Svetlicic *et al.*, 2011).

This edition welcomed 190 students and researchers from 31 countries in the Constant Burg amphitheater of the Institut Curie, Paris, France. The Alliance Nationale pour les Sciences de la Vie et de la Santé (Aviesan), the French Alternative Energies and Atomic Energy Commission (CEA/DSV Marcoule, France), the Fondation Pierre-Gilles de Gennes, and the Swiss Embassy in France were partners of the event.

The members of the organizing committee were Simon Scheuring (Conference Chair and Co-organizer, INSERM and Institut Curie, Paris), Jean-Luc Pellequer, and Pierre Parot (Co-organizers, CEA, Marcoule). Toshio Ando (Session chairman, University of Kanazawa, Japan), Carlos Bustamante (Session Chairman, University of California, Berkeley, USA), Manfred Radmacher (Session Chairman, Universität Bremen, Germany), Zhifeng Shao (Session Chairman, Shanghai Jiaotong University, Shanghai, China), Sanjay Kumar (former Conference Chair, University of California, Berkeley, Berkeley), Daniel Navajas (former Conference Chair, Universitat Barcelona), Chamin Su (BRUKER, Santa Barbara, CA, USA), and Vesna Svetličić (former Conference Chair, RBI, Zagreb) constituted the additional scientific committee.

The 4th AFMBioMed conference was associated with a COST Action TD1002 Management Committee meeting held on 22 August (COST Action TD1002, 2012). The COST Action TD1002 is the European network on applications of Atomic Force Microscopy to NanoMedicine and Life Sciences, which has, as main objective, to further develop and transfer the biophysical achievements of Atomic Force Microscopy to NanoMedicine and clinical research.

Concomitant with the meeting, a training day including technical special lectures was organized with the help of Bruker AXS on 22 August.

The main program of the conference included six half-day sessions that are summarized in the table.

Title	Session chairman	Invited speakers
<i>High-resolution imaging</i>	Zhifeng Shao	Noriyuki Kodera
<i>Force and mechanical measurements</i>	Carlos Bustamante	Bruno Samori
<i>AFM in nanomedicine</i>	Manfred Radmacher	Sandor Kasas
<i>Technical developments and theory</i>	Toshio Ando	Renato Zenobi

AFMBioMed gives a priority to the largest number of oral presentations from the scientific community, 65 in total including one keynote, four invited, and four plenary lectures, 56 selected oral presentations selected from the submitted abstracts, and supplemented by 96 poster communications. The Keynote Lecture on SPM Technologies past–present–future was given by Christoph Gerber who presented this incredible picture of the first AFM developed in 1986 (Figure 1).

One review and nine peer-reviewed articles are published in this issue. They provide a wide view of the scientific topics that were covered in the 4th AFMBioMed Conference Paris. We wish you a pleasant reading of those contributions.

We wish to thank all the contributors to this volume and more particularly the 30 reviewers that participated to the rigorous peer-review selection of submitted manuscripts.

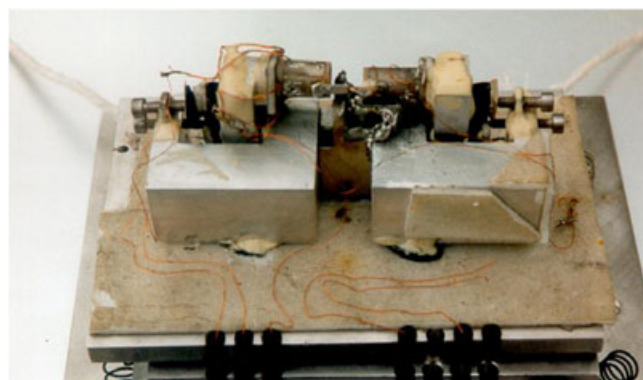


Figure 1. Picture of the first AFM (Binnig *et al.*, 1986) that was shown during the AFM BioMed Conference Paris, 26 August 2011, courtesy of Christoph Gerber (University of Basel, Switzerland).

We are glad to announce the 5th AFM BioMed Conference that will be hosted by Shanghai Jiao Tong University, the Shanghai Institute of Applied Physics, Chinese Academy of Sciences. It will be chaired by Prof. Jun Hu and will be held in Shanghai on May 2013 (<http://afmbiomed.org/shanghai-2013.aspx>).

We are looking forward to seeing you in Shanghai.

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