COST STSM Application Form

To be sent by the applicant as attachment by e-mail together with all the documents he/she would like to submit to support the application (full CV, detailed work plan, motivation, etc.) to the

* Host (who will send his agreement to host the applicant to the MC Chair)
* MC Chair for evaluation and approval

COST Office Science Officer: DR GIUSEPPE LUGANO, giuseppe.lugano@cost.eu
COST MC Chair: PROF. PIERRE PAROT, parot@cea.fr
COST STSM Manager: PIERRE PAROT, pierre.parot@cea.fr

COST STSM Reference Number: COST-STSM-TD1002-12101
Period: 2012-11-18 00:00:00 to 2012-12-22 00:00:00
COST Action: TD1002
STSM type: Regular (from Croatia to Austria)

STSM Applicant: Ms Ida Delac Marion,Institute of Physics,Zagreb(HR) , idelac@ifs.hr
STSM Topic: Dynamics of the receptor-ligand recognition process
Host: Peter Hinterdorfer,Institute for Biophysics, Johannes Kepler University Linz,Linz(AT), Peter.Hinterdorfer@jku.at

Budget Request: Year-2012

Travel	200 Euro
Subsistence (hotel/meals)	2300 Euro
Total	2500 Euro

Short CV:

Date of birth: 15.11.1986.

M.Sc. in Physics (2010), University of Zagreb, Faculty of Science, Department of Physics

Currently at Institute of Physics, Zagreb, as Research assistant / PhD student with topic on Experimental Solid State Physics and Biophysics

Work Plan Summary:

In molecular recognition force microscopy (MRFM), ligands are covalently attached to atomic force microscopy tips for the molecular recognition of their cognitive receptors on probe surfaces. A ligand-containing tip is approached towards the receptors on the probe surface, which possibly leads to formation of a receptor-ligand bond. The tip is subsequently retracted until the bond breaks at a certain force (unbinding force). In force spectroscopy (FS), the dynamics of the experiment is varied, which reveals a characteristic dependence of the unbinding force from the loading rate. These studies give insight into the molecular dynamics of the receptor-ligand recognition process and yield information about the binding pocket, binding energy barriers, and kinetic reaction rates. In this project we will conduct applications of the MRFM and FS methods on isolated proteins and cells.

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I request the approval of a COST Short Term Scientific Mission as described above

Applicant

Ms Ida Delac Marion 24 Oct 2012