

OFFER AN INTERNSHIP  
Academic Year 2012 – 2013

Send to Mrs Pr Camroux :

[anne-claude.camroux@univ-paris-diderot.fr](mailto:anne-claude.camroux@univ-paris-diderot.fr)

Name of the head of laboratory or company:

Adress :

E-mail :

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**Name of training supervisor: Alex bunker**

Phone number : +358-9-191-59670

Fax : +358-9-191-59725

E-mail : alex.bunker@helsinki.fi

Specialty training : Research  Professional

a few key words to describe the subject of training : The train will be involvement in a research project that makes use of molecular modelling, particularly molecular dynamics modelling to study problems related to drug delivery and pharmaceutical nanotechnology

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**Title of internship: Hydrophobin surface structure modelling**

this subject is a first step towards a thesis: Yes - No

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**Short texte describing your project**

**In a previous piece of research that is currently under review we have solved the structure of hydrophobin films composed of two hydrophobins HFB I and HFB II. Since these proteins are proposed as covering for hydrophobic nanoparticles in drug delivery their structure is highly relevant as once this is known in detail we can engineer the surface for further improvements. The project will involve analysing the results molecular dynamics simulation to determine key atomic level resolution links between the proteins and to perform the simulation both at the air-water interface and on a hydrophobic graphene surface to determine the structural difference between hydrophobin films at the air-water interface and on hydrophobic solid surfaces.**

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Send by e-mail : [anne-claude.camproux@univ-paris-diderot.fr](mailto:anne-claude.camproux@univ-paris-diderot.fr)