



Traineeship as ERASMUS student (Bilbao-Spain)

A traineeship (for a minimum period of 6 month) is available in the laboratory of **Dr. Nicola G. A. Abrescia** at the Structural Biology Unit at the CICbioGUNE, a multidisciplinary research institute located near Bilbao (Spain).

The potential candidate would be an ERASMUS (or equivalent) fellow and be at the final stages of his/her higher education studies in one of the following disciplines: Biological Sciences or Chemistry/Physics/Biophysics and interested in pursuing a future academic career.

Research Interests of the Group

Our research aims to understand how large multi-component proteins assemble, function and interact in the cellular context using structural techniques such as Cryo-Electron Microscopy and X-ray Crystallography.

One line of investigation is focused on the understanding of transcription initiation and regulation using Archaea as a model system for Eukarya. The second one is directed to the elucidation of viral processes and virus structures, their assembly principles and to the virus-cell recognition mechanisms.

Traineeship Description

The student will be introduced to molecular biology techniques (cloning by classical restriction sites and InFusion™, PCR, gel electrophoresis, Western Blot analysis), recombinant protein expression in bacteria (*E.coli*) and mammalian cells (CHO, HEK293), protein purification via affinity chromatography (Histidine-Tag, GST-Tag; size-exclusion column) and crystallogenesis (nano-crystallization).

The overall aim of the project is directed towards the understanding of the mechanism of virus-host recognition in a system already under study in our group.

Environment

The CICbioGUNE (<http://www.cicbiogune.es>) has a state-of-the art infrastructure from protein production to structural analysis (as crystallization and x-ray facilities, a JEOL JEM-2200FS 200kV field emission gun (FEG) electron microscope and a NMR 800 MHz Bruker US2 Avance II magnet equipped with a cryoprobe). The Institute is integrated in a multidisciplinary environment suited to foster scientific excellence.

Informal enquires should be sent to nabrescia@cicbiogune.es with **Ref. Traineeship_2012** in the subject line.