



EMBnet/CNB
Centro Nacional de Biotecnología, CSIC
C/Darwin, 3.
28049. Madrid, Spain

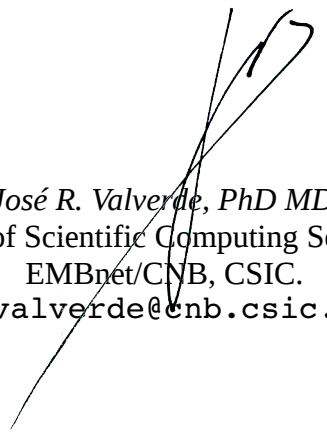
Advanced UNIX EMBnet/CNB course

This is to certify that Alejandro Couce Iglesias attended and satisfactorily completed the EMBnet (European Molecular Biology Network) course **Advanced UNIX**, which took place February to June 2009, at the *Centro Nacional de Biotecnología, Consejo Superior de Investigaciones Científicas*, Madrid, Spain.

This is a course on Advanced UNIX, oriented to scientists with an interest in learning advanced usage of scientific computing equipment. The course lasts **30 hours** evenly split in theory and practice, and relies on use of Linux and various other UNIX variants, covering

- A crash introduction to ancient UNIX (v5, v6, v7)
- Installing a Linux System
- Basic UNIX commands
- Basic UNIX tools (ssh, VNC, NX, rsync, ecryptfs)
- Editing files
- Shell Programming
- UNIX Programming
- Advanced UNIX tricks
- Parallel and cluster computing (torque/PBS, MPI)

There was considerable emphasis on developing first-hand experience through practical sessions using professional tools.


José R. Valverde, PhD MD
Head of Scientific Computing Services
EMBnet/CNB, CSIC.
jrvalverde@cnb.csic.es