- Role of Bioinformatics in Medical Research and Health Services
- Latest Trends in Bioinformatics
- Crash Course in Bioinformatics
- Use of Bioinformatics in Genomics Research
- Bioinformatics: Current Progress and Practical Applications (Baku, Azerbaijan)
- Workshop on Bioinformatics
- COMSTECH-CIIT National Workshop on Bioinformatics for Computer Scientists

Currently we have 2 Xeon Servers, eBioKit running, 2 bioinformatics labs, and direct link to PERN-2. We also provided Jemboss in 2006-2007. We are currently striving to improve and upgrade our computing facilities.

We have contributed 2 articles to EMBnet.news and 2 Quick Guides to EMBnet.org. Our contributions to EMBnet.news and EMBnet in general are expected to increase in future.

11 Bioinformatics undergraduate research projects were completely successfully under the supervision of members of our node.

Our node has come a long way since 2006. Most of the work was concentrated around raising awareness about bioinformatics and training the first generation of bioinformaticians.

Our goals for the next three years are:

- create avenues for utilizing the skilled manpower for scientific research and development;
- turning http://www.pk.EMBnet.org into bioinformatics portal as well as node website which would integrate tightly with http://www.EMBnet.org;
- setup bioinformatics infrastructure accessible outside the node;
- provide bioinformatics analysis services;
- increase and consolidate our online elearning activities;
- continue seminars and workshops to raise awareness on Bioinformatics and its applications in Life Science.

We are very thankful to EMBnet for their support and guidance since we joined the network in 2006. Without their support and guidance, we would have been much less successful in our effort to introduce and promote Bioinformatics in Pakistan.

Spanish EMBnet node: progress report

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During the last year the Spanish EMBnet node has been active in the Executive Board of EMBnet (see EB report in this issue).

Several EMBnet courses have been organised at CNB in Madrid during the period 2008-2009:

- International EMBnet introductory course on Molecular Dynamics using TINKER (extended and based on contents from Swiss EMBnet node course using CHARMM)
- National EMBnet introductory course on Quantum Biology (training delivered in Spanish)
- Biostatistics (an updated and extended version of previous introductory courses).
- Advanced UNIX (organized as a seminar series every Wednesday for three months).

All courses were organized as hands-on courses with theoretical lectures paired with practical sessions where students could try the tools first hand.

Additionally, the node manager participated in the II Workshop on Bioinformatics organized in Ota University, Canaanland, Nigeria on July. The course made heavy used on the in-development USB key from EMBnet/CNB. The key is now ready for use and we intend to update it periodically (see EMBnet.news vol. 15, nr. 3: pp. 8-11).

EMBnet/CNB has also actively participated on the organization of the Next Generation Sequencing Workshop held in Rome in November.

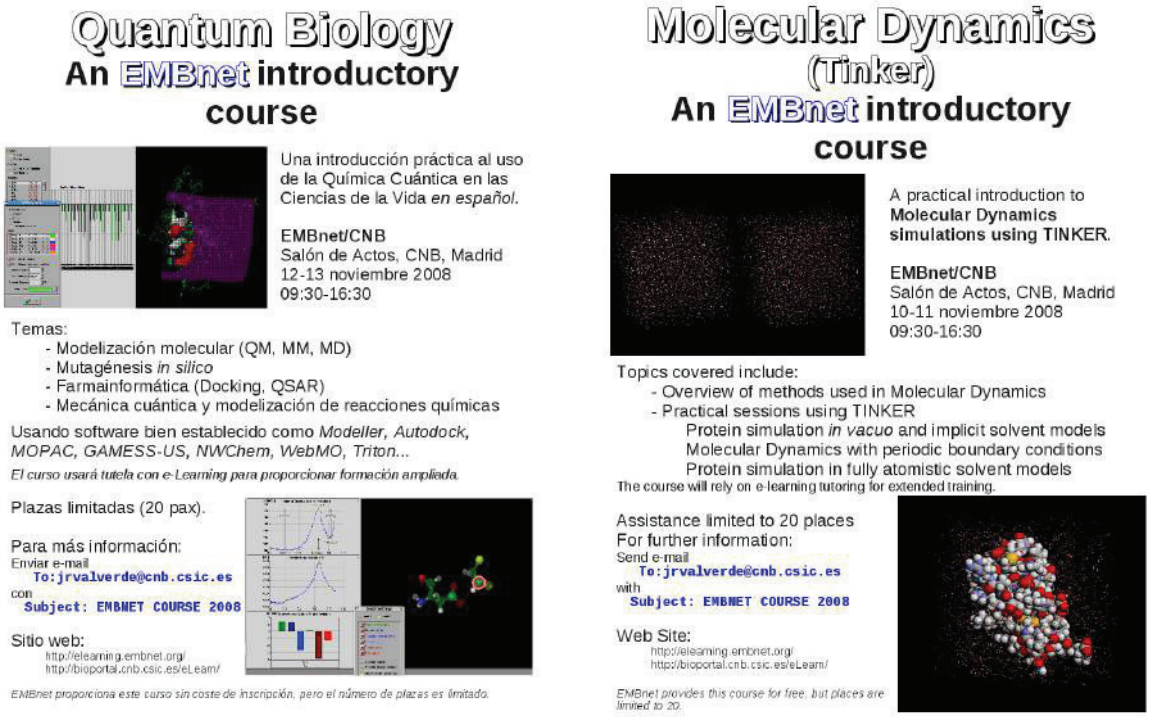

Figure 1. Announcements of the MD and QB courses held at CNB in November 2008.

In November last year, and in cooperation with the Austrian node, we ensured transfer of critical services to the Spanish node preserving URLs. This initiative ensures continued availability of services published in scholarly journals and hosted in EMBnet as per common editorial policies.

As a side work, EMBnet/CNB has been active in the promotion and creation of the Iberoamerican Bioinformatics Society, which is intended to take the lead from RIBIO, as well as in the preparation and submission of various proposals (of which FreeBIT proposal decision is still pending).

On the minus side, the current crisis is heavily affecting the development of node activities. A decision has been reached to offload computational work to related institutions in Spain (CSIC and CESGA), and to concentrate services in increasing local return for CNB. For the next year we project delivery of EMBnet courses in:

- Biostatistics
- Sequence Analysis
- Evolution
- Molecular Modeling
- Quantum Biology
- Analysis of High Throughput data

These courses will be offered first to CNB scientists and, if there is free space, will be open as International EMBnet courses. If possible, two editions (local and international) may be provided.

The Spanish node wants to stress its strong belief in the utmost importance of EMBnet delivering visible benefits to node hosting institutions for the safe continuity of its functions (notwithstanding community-at-large service provision) and would like to encourage the community to participate in discussions seeking the best way to achieve this goal.