

## **WEBIOLAB: WEB BIOinformatics LABoratory to investigate protein structure and function.**

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Bioinformatics applications require the joint use of different resources: databases, query systems, sequence analysis tools, software for 3D structure prediction and analysis. I am working to set up WEBIOLAB, a bioinformatics laboratory on the web (<http://crisceb.area.na.cnr.it/angelo/services.html>), where people interested to the investigation of protein structure and function can find tools useful for their work. Up today, the main task of this project was to arrange a large number of public databases (over 60 up to now, and the number is growing), which can be searched by means of the Sequence Retrieval System (SRS). Standard settings of SRS version 5.1.0 provide links among databases, and I am working to improve them with the aim to obtain a more powerful network. WEBIOLAB also includes local copies of public domain web tools for protein sequence analysis and 3D visualization. Many public domain programs for protein structure analysis and prediction are restricted to local users; the plan is to make them available within WEBIOLAB, also by exploiting the ability of SRS to submit entries of databases to applications. The next step of this work will be the implementation of appropriate interfaces to original tools developed to perform specific analyses of 3D structures of proteins, successfully used within our research projects.