MIAPE WEB TOOLKIT: A USER-FRIENDLY WORK FRAME TO CONNECT AND SHARE PROTEOMICS STANDARDS IN THE LAB.

J.A. Medina-Aunon[1], S. Martínez-Bartolomé[1], M.A. López-García[1], R. Navajas[1], A. Paradela[1], J.P. Albar[1].

[1] Centro Nacional de Biotecnología (CSIC), ProteoRed. Madrid. Spain.

In spite of the current interest in data-sharing along distributed or collaborative proteomics projects, the large amount of information being generated and exchanged by specialized laboratories requires standards and interchangeable data formats for its correctly spreading. The Human Proteome Organisation Proteomics Standards Initiative (HUPO-PSI) has published a set of standard MIAPE (Minimum Information About a Proteomics Experiment) guidelines accompanying with data exchange formats - normally represented in Extensible Markup Language (XML) - that will certainly contribute to proteomics data-sharing within the scientific community. In addition, specialized journals have emphasized the use of these guidelines and standards to facilitate the evaluation and publication of new articles. However, it is our opinion that there is an evident lack of bioinformatics tools specifically designed to create and edit the required information and its connectivity with the proteomics pipeline. Thus, development of new software tools will facilitate cooperation among proteomics research groups and will increase the quality of the proteomics data available in open-access repositories.

Here we describe a new free web tool (MIAPE web toolkit) capable of linking the latest versions of HUPO-PSI standard XML schemas to MIAPE reports in order to add these elements to daily laboratory workflow. MIAPE web toolkit's main characteristic is its ability to automatically translate and link the data derived from proteomics experiments using the current HUPO-PSI standards and MIAPE guidelines. Moreover, MIAPE web toolkit offers several ways to include it with third party applications, improving the daily workflow for reporting experiments.

The toolkit is currently available at http://www.proteored.org/MIAPE/

.