

Call for Papers
ECAI- 2004 Workshop
Data Mining in Functional Genomics and Proteomics: Current
Trends and Future Directions

<http://www.softwareresearch.ca/ecai-bio/index.html>

August 23rd, 2004

Workshop Objectives:

Data Mining in Functional Genomics and Proteomics involves a close collaboration between researchers from a number of diverse areas, such as biology, medicine, genomics and proteomics to computer science, mathematics and statistics. This collaboration of disciplines has evolved because of the: (i) advances that have occurred in data production and acquisition facilities, such as the introduction of microarrays and high throughput genomics and proteomics, (ii) enormous amounts of data that is generated every day that cannot be analyzed using ordinary data mining tools and techniques, and (iii) strong interest from many groups (research institutes, hospitals, academia, pharmaceuticals, etc.) who want to benefit from this wealth of data. Many efforts to deal with these issues are being undertaken by researchers working in this field. The aim of this workshop is to bring together researchers working on different topics related to data mining in functional genomics and proteomics. In particular we are interested to focus on current trends and emphasize on what should be the future directions for generic and applied research in this field. The main topics to be addressed during the workshop are integration methodologies for functional genomics and proteomics and also issues related to structuring and disseminating all useful knowledge that increasingly becomes available in this field.

The intended audience are researchers and practitioners who are working in the above fields and in one or more of the following.

Topics:

- Data pre-processing, data understanding
- Data management methods
- Data mining architectures, data bases
- Machine learning, NN, GA, SVM
- Statistics
- Soft computing techniques
- Gene expression analysis
- Gene networks and pathways
- Comparative genomics
- Post-processing, knowledge/model integration
- Integration of various forms of genomics and proteomics data
- Genomics knowledge structure and dissemination
- Association rules, and knowledge discovery from time series data
- Data Visualization, Association Graphs

Submission Guidelines:

Interested participants are requested to submit their papers in PDF or Postscript. Papers should not exceed 10-12 pages. Submissions should be made to one of the following workshop organizers:

- Dr. A. Fazel Famili fazel.famili@nrc-cnrc.gc.ca
- Prof. Xiaohui Liu Xiaohui.Liu@brunel.ac.uk
- Prof. J.M. Peña jmpena@fi.upm.es