

Invited session on

Knowledge Discovery and Data Mining applications for Human Health and Environmental Sciences

(sponsored by KDNNet - Knowledge Discovery Network of Excellence, <http://www.kdnet.org>)

QSAR 2004 - the 11th International Workshop on Quantitative Structure-Activity Relationships in the Human Health and Environmental Sciences



The 11th International Workshop on
Quantitative Structure-Activity Relationships
in the Human Health and Environmental Sciences (QSAR 2004)

Liverpool Britannia Adelphi Hotel, Liverpool, England
Sunday 9th - Thursday 13th May 2004

9-13 May 2004

Liverpool Britannia Adelphi Hotel, Liverpool, England

Conference Web page: <http://www.toxqsar.org/>

[Download the call for papers]

Organizer of the invited session:

Dr. Daniel NEAGU

University of Bradford

Department of Computing

E-mail address: D.Neagu@bradford.ac.uk

Web address: http://www.scm.brad.ac.uk/html/c_staff_profile.php3?usercode=dneagu

Invited Speaker:

Dr. Christoph HELMA

Institute for Computer Science

University of Freiburg

Web address: <http://www.informatik.uni-freiburg.de/~helma/>

Objectives

In the last few years, new improved experimental techniques and tools have made possible to collect large quantities of biological and chemical data. There is a critical need for innovative knowledge discovery tools to sift through vast volumes of heterogeneous biological/ chemical data, to analyze these data and express them into new knowledge. The analysis and interpretation of this data range from traditional approaches (statistics, inductive logic) towards more general computational intelligence systems applied to process biological and chemical data: knowledge-based approaches (rule-based inference systems), connectionist systems, knowledge-based information extraction and data mining.

The objective of this invited session is to bring together scientists engaged in knowledge discovery and data mining, machine learning, chemoinformatics, QSAR and predictive toxicology research. The principal challenge the invited session will try to deal with is the communication difficulties that can exist yet between experts in human health and

environmental sciences and experts in computational intelligence and data mining. Consequently, it will provide a forum for identifying important contributions and opportunities for research on the application of knowledge discovery and data mining to human health and environmental sciences.

Topics of interest of the session include (but are not limited to) the followings:

Relevant KDD and Machine Learning techniques:

- knowledge representation
- knowledge discovery and data mining
- machine learning
- soft computing
- pattern recognition
- feature extraction
- databases
- string and graph algorithms
- linguistic methods
- constraint satisfaction
- parallel computation

Human Health and Environmental Sciences:

- molecular sequence analysis
- chemical process analysis
- SAR/QSAR
- in silico ADMET
- toxicology
- environmental toxicity
- pharmacogenomics
- combinatorial libraries and drug design
- computational chemistry
- information and data management for experimental chemistry

Registration, Abstract/Poster submission, and Instructions for Authors details

Please refer to the workshop main page and specific sections: <http://www.toxqsar.org>. Bursaries will be available for registered research students.

Publication

The Proceedings of the Workshop will be published in special editions of SAR and QSAR in Environmental Research. This journal, published by Taylor and Francis, currently leads the field in toxicological QSAR (details at <http://www.toxqsar.org/default.asp?ID=5>).

Dates:

The deadline for abstract submissions for POSTER presentations: 15th April 2004 (details: <http://www.toxqsar.org/default.asp?ID=4>).

The late deadline for posters is intended to encourage presentation of cutting-edge material and hot topics.