

Special Issue on Literature-Mining Solutions for Life Science Research

Call for Papers

Research and development in the area of biomedical literature analysis aims at providing life scientists with effective means to access and exploit knowledge contained in scientific publications. Virtually, all publications are nowadays available electronically, but keeping up to date with recent findings remains a tedious task hampered by complex and ineffective means of accessing the literature. Biomedical text analysis aims to improve access to unstructured knowledge by alleviating searches, providing autogenerated summaries, linking publications with structured resources, visualizing content for better understanding, and guiding researchers to novel hypotheses and into knowledge discovery. Focused research over recent years has improved fundamental methods in biomedical text mining, ranging from document retrieval to the extraction of relationships. Consequently, more and more integrative literature analysis tools have been put forward, targeting a broad audience of life scientists.

This special issue aims at presenting the richness of end-user-oriented literature-mining tools for bioinformaticians, molecular biologists, clinicians, and other life science researchers. Potential topics include, but are not limited to:

- Search engines and literature navigation tools providing content enrichment, cross-document analysis, and so forth
- Network/pathway synthesis and visualization
- Plug-ins for data analysis pipelines or visualization tools
- Knowledge discovery support: reasoning for hypothesis generation or contradiction detection
- Other solutions relying on a significant proportion on automated literature analysis

Submissions should discuss typical use cases to demonstrate the ability to effectively access information and guide the researcher to desired or novel findings. Readers should be able to obtain a profound understanding of what can be achieved with a given tool and how much confidence can be put to text-mined information. Each application needs to be free for academic organizations, with at least an open-access trial version for nonacademic users.

We also solicit comprehensive, technical surveys and methodological surveys focused on the assessment of existing end-user-oriented literature-mining solutions and natural language processing methods for life sciences. We expect to have two surveys within this special issue. Prospective authors are encouraged to contact the guest editors by June 30, 2011 to determine suitability.

Before submission authors should carefully read over the journal's Author Guidelines, which are located at <http://www.hindawi.com/journals/abi/guidelines/>. Prospective authors should submit an electronic copy of their complete manuscript through the journal Manuscript Tracking System at <http://mts.hindawi.com/> according to the following timetable:

Manuscript Due	November 15, 2011
First Round of Reviews	February 15, 2012
Publication Date	May 15, 2012

Lead Guest Editor

Jörg Hakenberg, Disease Translational Informatics, F. Hoffmann-La Roche, Nutley, NJ 07110, USA; jorg.hakenberg@roche.com

Guest Editors

Goran Nenadic, School of Computer Science and Manchester Interdisciplinary BioCenter, The University of Manchester, Manchester M13 9PL, UK; g.nenadic@manchester.ac.uk

Dietrich Rebholz-Schuhman, European Bioinformatics Institute, Wellcome Trust, Genome Campus, Hinxton, London NW1 2BE, UK; rebholz@ebi.ac.uk

Jin-Dong Kim, Database Center for Life Science, Tokyo 113-0032, Japan; jdkim@dbcls.rois.ac.jp