

## Preface

---

This volume comprises the formal proceedings for the Sixth International Conference on Intelligent Systems for Molecular Biology (ISMB-98) held in Montréal, Canada from June 28 - July 1, 1998. As with the previous ISMB conferences, this meeting provides a general forum for disseminating the latest developments in bioinformatics. ISMB is a multidisciplinary conference that brings together scientists from computer science, molecular biology, mathematics and statistics. Its scope includes the development and application of advanced computational methods for biological problems. Relevant computational techniques include, but are not limited to: machine learning, pattern recognition, knowledge representation, databases, combinatorics, stochastic modeling, string and graph algorithms, linguistic methods, robotics, constraint satisfaction, and parallel computation. Biological areas of interest include molecular structure, genomics, molecular sequence analysis, evolution and phylogenetics, metabolic pathways, regulatory networks, developmental control, and molecular biology generally. Emphasis is placed on the validation of methods using real data sets, on practical applications in the biological sciences, and on development of novel computational techniques.

As the years go on, the level of interest in ISMB conferences is increasing. This year the call for papers produced a record number of 92 submissions. All papers were rigorously reviewed by members of a distinguished program committee, and the program was assembled based on their recommendations. This selection process was very competitive and resulted in 25 high-quality papers that appear in these proceedings. The conference was truly international, with authors of accepted papers representing 12 countries and 4 continents.

ISMB is also well known for its poster session and its introductory tutorial program. In order to encourage and reward student participation in the conference, this year we also introduced an award for the Best Student Paper or Poster Presentation.

There were keynote addresses presented by three eminent scientists: Robert Cedergren, from the Université de Montréal, Michael Waterman, from the University of Southern California and Shoshana Wodak from the European Bioinformatics Institute.

To increase the accessibility of the conference to young scientists, the ISMB organizing committee once again made travel awards available to students who wished to attend the

conference. The committee would like to express thanks to the sponsoring organizations who made this possible.

This year, the conference was held concurrently with a workshop on Ontologies for Molecular Biology. This workshop, which was organized by Russ Altman, David Benton, Peter Karp and Steffen Schulze-Kremer, focused on several aspects of the schemata, controlled vocabularies and ontologies for bioinformatics.

For the first year, ISMB is under the official sponsorship of the International Society for Computational Biology (ISCB). The mission of this society is the advancement of the scientific understanding of living systems through computation; its emphasis is on the role of computing and informatics in advancing molecular biology. Information on ISCB can be found at its web site (<http://www.iscb.org>). The conference was also held in cooperation with the American Association for Artificial Intelligence (AAAI).

In conclusion, the organizing committee would like to thank Queen's University and the Université de Montréal for supplying administrative support for the conference. Special thanks should be given to Nancy Barker, who with the assistance of Bernard King, coordinated the call for papers and review process.

- *Janice Glasgow, Terry Gaasterland,  
Richard Lathrop, Tim Littlejohn,  
François Major, Manuel Peitsch,  
Christoph Sensen, David Sankoff*  
ISMB-98 Organizing Committee