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Nicos Maglaveras Ioanna Chouvarda
Vassilis Koutkias Rüdiger Brause (Eds.)

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Nicos Maglaveras

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Vassilis Koutkias

Aristotle University

The Medical School

Lab. of Medical Informatics – Box 323

54124 Thessaloniki, Greece

E-mail: {nicmag,ioanna,bikout}@med.auth.gr

Rüdiger Brause

J.W. Goethe-University

Department of Computer Science and Mathematics

Institute for Informatics

Robert-Mayer Str. 11-15, 60054 Frankfurt, Germany

E-mail: rbrause@informatik.uni-frankfurt.de

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Preface

The area of medical and biological data analysis has undergone numerous transformations in recent years. On the one hand, the Human Genome Project has triggered an unprecedented growth in gathering new types of data from the molecular level, which has in turn raised the need for data management and processing and led to the exponential growth of the bioinformatics area. On the other hand, new bits of information coming from molecular data have started filling some long-standing gaps of knowledge, complementing the huge amount of phenotypic data and relevant medical analysis. Thus, bioinformatics, medical informatics and biomedical engineering disciplines, contributing to the vertical integration of knowledge and data, using information technology platforms and enabling technologies such as micro and nano sensors, seem to converge and explore ways to integrate the competencies residing in each field.

ISBMDA has formed a platform, enabling the presentation and integration of new research results adding huge value to this scientific endeavour. This new research information stems from molecular data and phenotypically-oriented medical data analysis such as biosignal or bioimage analysis, novel decision support systems based on new combinations of data, information and extracted knowledge and, innovative information technology solutions enabling the integration of knowledge from the molecules up to the organs and the phenotype. Thus, the 7th ISBMDA was a place for all the above mentioned competencies to come together, and for the discussion and synthesis of new approaches to our understanding of the human organism function on a multiscale level.

We would like to express our gratitude to all the authors who submitted their work to the symposium and gave the Technical Program Committee the opportunity to prepare a symposium of outstanding quality. This year we received 91 contributions and following a rigorous review procedure 44 contributions were selected for presentation at the symposium. The form of the 44 presentations selected was either oral (28 oral presentations) or poster (16 poster presentations). We would finally like to thank the Technical Program Committee and the reviewers who helped, for the preparation of an excellent program for the symposium.

December 2006

Nicos Maglaveras
Ioanna Chouvarda
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