

Foreword

It gives us great pleasure to introduce this collection of papers to be presented at the 2006 International Conference on Bioinformatics & Computational Biology (BIOCOMP'06), June 26 through 29, 2006, at Monte Carlo Resort, Las Vegas, Nevada, USA.

The Academic Co-sponsors of this year's event include: Massachusetts Institute of Technology's (MIT) Media Lab (<http://www.media.mit.edu/>); Texas Advanced Computer Center (TACC) of University of Texas at Austin (<http://www.tacc.utexas.edu/>); Institute for Informatics Problems of Russian Academy of Sciences, Moscow, Russia (The IIP of Russian Academy of Sciences is co-sponsoring the ILINTEC Workshop and MLMTA Conference only - <http://www.ipiran.ru/english/main.asp>); and The Ohio Supercomputer Center (OSC is co-sponsoring the CIC Conference only - <http://www.osc.edu>).

Organizers and Co-sponsors at-large include: A number of university faculty members and their staff (names appear on the cover of proceedings); World Academy of Science (http://www.world-academy-of-science.org/worldcomp06/ws/index_html); and Computer Science Research, Education, & Applications Press.

Media Co-Sponsors include: HPC wire (<http://www.hpcwire.com/>); GRID today (<http://www.gridtoday.com/>); H2CM Hodges' Health (<http://www.p-jones.demon.co.uk/>); and Charter Cable Internet Access (<http://www.ezisp.info/high-speed/cable-internet.html>).

Other Co-Sponsors include: One Laptop Per Child Association (OLPC; <http://www.laptop.org/>); and International Technology Institute (<http://www.itiworld.org/>).

In addition to the above, several publishers of computer science and computer engineering books and journals, chapters and/or task forces of computer science associations/organizations from 12 countries, and developers of high-performance machines and systems have provided significant help in organizing the conference.

The program committee would like to thank all those who submitted papers for consideration. About 48% of the submissions were from outside the United States. Each submission was evaluated by two referees (except for papers that were submitted to chairs of sessions who were responsible for the evaluation of these papers.) The overall paper acceptance rate was about 32% (as of April 30, 2006).

We are very grateful to the many colleagues who helped in organizing the conference. In particular, we would like to thank the members of the BIOCOMP'06 Program Committee who we hope will offer their help again in organizing the next year's conference. The BIOCOMP'06 Program Committee members are:

Edoardo Airoldi (PhD Student Member), Carnegie Mellon University, USA
Prof. Hamid R. Arabnia (Coordinator/Co-Chair), University of Georgia, Georgia, USA
Dr. Hikmet Budak (Vice Chair), Sabanci University, Tuzla-Istanbul, Turkey
Dr. Yu Chen, Bioinformatics Group, Monsanto Company, St Louis, MO, USA
Dr. Rajat K. De, Indian Statistical Institute, Kolkata, India
Dr. Beatriz de la Iglesia, University of East Anglia, Norwich, Norfolk, UK
Dr. Matthias Dehmer, University of Darmstadt, Darmstadt, Germany
Dr. Frank Emmert-Streib, Stowers Institute for Medical Research, Kansas City, USA
Dr. Debraj GuhaThakurta, Rosetta Inpharmatics (Merck & Co.), Seattle, Washington, USA
Dr. Carlos Juiz, Universitat de les Illes Balears, Despatx, Spain
Dr. Seddik Khemaissia, Riyadh College of Technology, Saudi Arabia
Dr. Meena Kishore Sakharkar, Nanyang Technological University, Singapore

Prof. Waldemar W. Koczkodaj, Laurentian University, Sudbury, Ontario, Canada
Vinod Kumar, Marie Curie Fellow, UKT Eberhard Karls University, Germany
Dr. Kuan-Ching Li, Providence University, Taiwan
Prof. Shutao Li, Hunan University, Changsha, P. R. China
Dr. Xuelong Li, University of London, UK
*Prof. Dinesh P. Mital, University of Medicine and Dentistry of New Jersey (UMDNJ-SHRP),
Newark, New Jersey, USA*
Prof. Juan J. Nieto, University of Santiago de Compostela (USC), Spain
Dr. R. Palaniappan, University of Essex, Colchester, UK
Dr. R. Ponalagusamy, National Institute of Technology, Tamilnadu, India
Junfeng Qu (PhD Student Member), University of Georgia, Georgia, USA
Prof. Mohammad Riaz Moghal, Dean, University College of Eng. & Tech. Mirpur, Pakistan
Ashu M. G. Solo, Maverick Technologies America Inc., Wilmington, Delaware, USA
Priti Talwar (PhD Student Member), Max Planck Institute for Informatics, Saarland, Germany
Dr. Ahmet Ugur, Central Michigan University, Mt. Pleasant, Michigan, USA
Dr. Faramarz Valafar (Co-Chair), San Diego State University, San Diego, CA, USA
Dr. Homayoun Valafar (Vice Chair), University of South Carolina, South Carolina, USA
Dr. Jongwook Woo, California State University, Los Angeles, California, USA
Dr. Li Xiaoli, Institute for Infocomm Research (I2R), Singapore
Dr. Jack Y. Yang, Harvard University, Harvard Medical School, Cambridge, MA, USA
*Dr. Mary Qu Yang (Vice Chair), United States National Human Genome Research Institute,
National Institutes of Health, US Department of Health and Human Services, USA*
*Dr. Salim Zabir (Vice Chair), Panasonic R&D and Matsushita Electric Industrial
Company, Osaka, Japan*
*Dr. Le Zhang, Harvard University, Cambridge, Massachusetts, USA
Massachusetts Institute of Technology, Cambridge, Massachusetts, USA*
Members of Task Force of ICAI (for AI techniques in bioinformatics)
Members of Task Force of IKE (for knowledge engineering and extraction)
Members of Task Force of MLMTA (for bioinformatics and machine learning)
Members of Task Force of PDPTA (for bioinformatics and high-performance computing)

We would also like to thank the followings: UCMSS (Universal Conference Management Systems & Support, San Diego, California, USA) for managing all aspects of the conference; Dr. Tim Field of APC for managing the printing of the proceedings; and the staff of Monte Carlo Resort in Las Vegas for the professional service they provided. Last but not least, we would like to thank BIOCAMP'06 Associate Editors, Drs. Hikmet Budak, Faramarz Valafar, Mary Qu Yang, and Salim Zabir.

We present the proceedings of BIOCAMP'06.

Hamid R. Arabnia (Coordinator & Co-Chair) and Homayoun Valafar (Co-Chair)
BIOCAMP'06 Program Committee