

# The Sixth International Conference on Bioinformatics of Genome Regulation and Structure

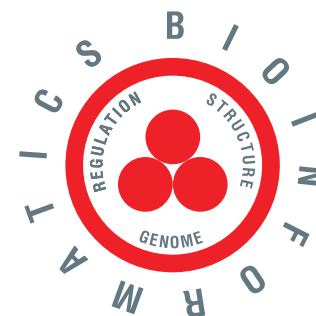
Dear colleagues,

The Institute of Cytology and Genetics of the Siberian Branch of the Russian Academy of Sciences will be hosting the International Conference on Bioinformatics of Genome Regulation and Structure/Systems Biology (BGRS\SB-2010) in Novosibirsk, Russia, from 20-27 June 2010. This Conference is the seventh in the series since the first BGRS event held in 1998.

As one of the key disciplines in modern biology, bioinformatics is a rapidly developing science. Consequently, each of the past BGRS events was focused on the most important topics of that time. To keep this tradition going, BGRS\SB-2010 will be centered on bioinformatics and systems biology.

Systems biology largely focuses on the study of the organization and operation of the biological systems at various levels: molecular genetic entities, cells, tissues, organs and organisms on the basis of information encoded in their genomes.

The conference www page is available at  
<http://www.bionet.nsc.ru/meeting/bgrs2010/>  
The e-mail address of the BGRS'2010 organizing committee:  
[bgrs2010@bionet.nsc.ru](mailto:bgrs2010@bionet.nsc.ru)  
It is my pleasure to invite you to visit Novosibirsk  
this time and participate in the BGRS'2010.



**INTERNATIONAL CONFERENCE  
ON BIOINFORMATICS OF GENOME  
REGULATION AND STRUCTURE  
BGRS'2010**

NOVOSIBIRSK, 2009

# THE SIBERIAN CENTER FOR GENOMICS, PROTEOMICS AND BIOINFORMATICS TECHNOLOGIES

Systems biology strongly depends on high-performance experimental technologies:

- sequencing of genomic DNA, analysis of its between-population and evolutionary variation;
- study of the expression of genes and gene complexes using biochips-based modalities;
- structural and functional analysis of proteins and metabolites using mass spectrometric methods;
- study of the structural and functional organization of biological objects (macromolecules, chromosomes, cells, tissues, organs, organisms) using modern microscopic methods;
- construction of artificial molecular genetic systems using genetic engineering techniques.

In systems biology, bioinformatics methods play by far the most important role. With them, the researcher can:

- accumulate and integrate experimental information in databases;
- bring this information to computer analysis;
- perform mathematical modeling of the structural and functional organization of living systems;
- predict new properties of living systems;
- design new rounds of experimental research.

Systems biology follows in the steps of physics where no experiment or its interpretation is possible until profound theoretical and computer-aided analyses of the systems and processes being studied are made.

Consequently, BGRS\SB-2010 will have special focus on research efforts that are based on integration of experimental and computer-based/theoretical approaches.

The following are the particular studies, in which bioinformatics and systems biology meet and which are of special interest to the Conference:

- genomics;
- chromosomics;
- transcriptomics;
- proteomics;
- metabolomics;
- reconstruction and modeling of gene networks;
- cell biology;
- physiological genetics;
- developmental biology;
- evolutionary biology;
- synthetic biology;
- medical biology and pharmacology;
- biotechnology.

The results of the most recent research in these fields will be presented. The Conference program will include plenary papers, session papers and round tables. As previously, we are hoping to hear from those who wish to step down as Session Chairs and about their suggestions for the sessions they wish to chair. The Session Chairs will be offered special privileges at the Conference.

You are very welcome to participate in the 7th International Conference on Bioinformatics of Genome Regulation and Structure/Systems Biology - BGRS\SB-2010.

The Conference's official site is

<http://www.bionet.nsc.ru/meeting/bgrs2010/index.html>

The email address is [bgrs\\_sb2010@bionet.nsc.ru](mailto:bgrs_sb2010@bionet.nsc.ru)

Best regards,

Organizing Committee BGRS\SB-2010.

