SUMMARY OF
INNOVATIONS IN BIOMEDICAL INFORMATION SCIENCE AND
TECHNOLOGY:
PHASED INNOVATION AWARDS (R21/R33)
FOR PROGRAM ANNOUNCEMENT PAR-03-106
NEWLY FUNDED IN FY 2006

The following text provides a summary of grants from BISTIC member institutes and centers for NIH innovations in biomedical information science and technology awards in response to program announcement PAR-03-106. The objective of this program is to support innovative biomedical computation research whose outcomes are likely to advance health or health-related research within the mission of the NIH.

Funded grants are listed below in alphabetical order by the principal investigator's (PI's) last name. Other information provided for each grant includes PI affiliation, grant title, application number, and funding organization.

1. PRINCIPAL INVESTIGATOR: BAJAJ, CHANDRAJIT L
AFFILIATION: UNIVERSITY OF TEXAS AUSTIN
PROJECT TITLE: A New Approach to Rapid Protein-Protein Docking
GRANT NUMBER: 1 R01 GM073087-01A1

2. PRINCIPAL INVESTIGATOR: BOYER, JAMES L
AFFILIATION: MOUNT DESERT ISLAND BIOLOGICAL LAB
PROJECT TITLE: Comparative Toxicogenomics Database (CTD)
GRANT NUMBER: 1 R01 ES014065-01A1

3. PRINCIPAL INVESTIGATOR: BROCK, OLIVER
AFFILIATION: UNIVERSITY OF MASSACHUSETTS AMHERST
PROJECT TITLE: Predicting Protein Structure with Guided Conformation Space Search
GRANT NUMBER: 1 R01 GM076706-01A1

4. PRINCIPAL INVESTIGATOR: BUTTE, ATUL J
AFFILIATION: STANFORD UNIVERSITY
PROJECT TITLE: Enabling new discoveries in pharmacogenomics through a genomic date-driven nosolo
GRANT NUMBER: 1 R01 GM079719-01

5. PRINCIPAL INVESTIGATOR: CAI, LIMING
AFFILIATION: UNIVERSITY OF GEORGIA (UGA)
PROJECT TITLE: Searching Genomes for Non-Coding RNAs by Their Structure
GRANT NUMBER: 1 R01 GM072080-01A1

6. PRINCIPAL INVESTIGATOR: COLE, STEVE W
AFFILIATION: UNIVERSITY OF CALIFORNIA LOS ANGELES
PROJECT TITLE: Combinatorial Genomics in Cancer
GRANT NUMBER: 1 R01 CA116778-01A2

7. PRINCIPAL INVESTIGATOR: CRISCO, JOSEPH J
AFFILIATION: RHODE ISLAND HOSPITAL (PROVIDENCE, RI)
PROJECT TITLE: 3-D Multi-Articular Models of the Carpus
GRANT NUMBER: 1 R01 HD052127-01

8. PRINCIPAL INVESTIGATOR: DAVULURI, RAMANA V
AFFILIATION: OHIO STATE UNIVERSITY
PROJECT TITLE: Genomewide discovery & analysis of alternative promoters
GRANT NUMBER: 1 R01 HG003362-01A2

9. PRINCIPAL INVESTIGATOR: DE, SUVRANU
AFFILIATION: RENSSELAER POLYTECHNIC INSTITUTE
PROJECT TITLE: Physically Realistic Virtual Surgery
GRANT NUMBER: 1 R01 EB005807-01

10. PRINCIPAL INVESTIGATOR: EISENBERG, DAVID S
AFFILIATION: UNIVERSITY OF CALIFORNIA LOS ANGELES
PROJECT TITLE: A Core Database of Interacting Proteins (DIP)
GRANT NUMBER: 1 R01 GM071909-01A2

11. PRINCIPAL INVESTIGATOR: GUCCIONE, JULIUS
AFFILIATION: NORTHERN CALIFORNIA INSTITUTE RES & EDUC
PROJECT TITLE: Virtual Tools for Cardiac Ventricular Remodeling Surgery
GRANT NUMBER: 1 R01 HL077921-01A2

12. PRINCIPAL INVESTIGATOR: HEINE, JOHN J
AFFILIATION: H. LEE MOFFITT CANCER CTR & RESEARCH INS
PROJECT TITLE: An Automated System for Breast Cancer Biomarker Analysis
GRANT NUMBER: 1 R01 CA114491-01A2

13. PRINCIPAL INVESTIGATOR: HOLMES, IAN H
AFFILIATION: UNIVERSITY OF CALIFORNIA BERKELEY
PROJECT TITLE: Evolutionary Modeling/Prediction of ncRNA Genes in Flies
GRANT NUMBER: 1 R01 GM076705-01

14. PRINCIPAL INVESTIGATOR: HUCKA, MICHAEL
AFFILIATION: CALIFORNIA INSTITUTE OF TECHNOLOGY
PROJECT TITLE: A Comprehensive Test Suite for SBML
GRANT NUMBER: 1 R01 GM077671-01

15. PRINCIPAL INVESTIGATOR: JACOBS, DONALD J
AFFILIATION: UNIVERSITY OF NORTH CAROLINA CHARLOTTE
PROJECT TITLE: Predicting protein flexibility and stability
GRANT NUMBER: 3 R01 GM073082-01A1S1

16. PRINCIPAL INVESTIGATOR: JELLIFFE, ROGER W.
AFFILIATION: UNIVERSITY OF SOUTHERN CALIFORNIA
PROJECT TITLE: Optimizing Coordinated Combination Drug Therapy
GRANT NUMBER: 1 R01 EB005803-01A1

17. PRINCIPAL INVESTIGATOR: JOULINE, IGOR B.
AFFILIATION: UNIVERSITY OF TENNESSEE KNOXVILLE
PROJECT TITLE: Computational Genomics of Signal Transduction
GRANT NUMBER: 5 R01 GM072285-03

18. PRINCIPAL INVESTIGATOR: KOLKER, EUGENE
AFFILIATION: BIATECH INSTITUTE
PROJECT TITLE: Experimental Standards and Computational Platform for HTP
Proteomics
GRANT NUMBER: 1 R01 GM076680-01A1

19. PRINCIPAL INVESTIGATOR: LATOUR, ROBERT A
AFFILIATION: CLEMSON UNIVERSITY
PROJECT TITLE: Force Field Development for Protein Absorption Modeling
GRANT NUMBER: 1 R01EB006163-01

20. PRINCIPAL INVESTIGATOR: LAZARUS, ROSS
AFFILIATION: A Genetic Association Research Statistical Framework
PROJECT TITLE: BRIGHAM AND WOMEN'S HOSPITAL
GRANT NUMBER: 1 R01 HG003646-01A1

21. PRINCIPAL INVESTIGATOR: LEE, JAE K.
AFFILIATION: UNIVERSITY OF VIRGINIA CHARLOTTESVILLE
PROJECT TITLE: Genome Pathway Modeling Diabetic Atherosclerosis
GRANT NUMBER: 1 R01 HL081690-01A1

22. PRINCIPAL INVESTIGATOR: LIU, XIAOLE SHIRLEY
AFFILIATION: DANA-FARBER CANCER INSTITUTE
PROJECT TITLE: Computational Models for Mechanisms of Global Transcription
Regulation
GRANT NUMBER: 1 R01 HG004069-01

23. PRINCIPAL INVESTIGATOR: MEDVEDOVIC, MARIO
AFFILIATION: UNIVERSITY OF CINCINNATI
PROJECT TITLE: Bayesian Mixture Modeling of Functional Genomics Data
GRANT NUMBER: 1 R01 HG003749-01A1

24. PRINCIPAL INVESTIGATOR: MILOSAVLJEVIC, ALEKSANDAR
AFFILIATION: BAYLOR COLLEGE OF MEDICINE
PROJECT TITLE: Genboree System for Translational Studies of Genome Variation
GRANT NUMBER: 1 R01 HG004009-01

25. PRINCIPAL INVESTIGATOR: MURPHY, ROBERT F
AFFILIATION: CARNEGIE-MELLON UNIVERSITY
PROJECT TITLE: Probabilistic Modeling of Information from Images/Text
GRANT NUMBER: 1 R01 GM078622-01

26. PRINCIPAL INVESTIGATOR: NICOLELIS, MIGUEL A. L.
AFFILIATION: DUKE UNIVERSITY
PROJECT TITLE: Method for In-Vivo Assessment of Neuronal Dysfunction
GRANT NUMBER: 1 R21 NS049534-01A2

27. PRINCIPAL INVESTIGATOR: PHAM, DZUNG L
AFFILIATION: JOHNS HOPKINS UNIVERSITY
PROJECT TITLE: Cortical Reconstruction and Analysis Software
GRANT NUMBER: 1 R01 NS054255-01

28. PRINCIPAL INVESTIGATOR: RAMONI, MARCO F
AFFILIATION: CHILDREN'S HOSPITAL BOSTON
PROJECT TITLE: Decoding Gene Expression Control Using Conditional Clustering by Dyanamics
GRANT NUMBER: 1 R01 HG003354-01A2

29. PRINCIPAL INVESTIGATOR: ROCKE, DAVID M.
AFFILIATION: UNIVERSITY OF CALIFORNIA DAVIS
PROJECT TITLE: Methods for Analysis of High Throughput Assay Data
GRANT NUMBER: 1 R01 HG003352-01A2

30. PRINCIPAL INVESTIGATOR: SANTAGO, PETER
AFFILIATION: WAKE FOREST UNIVERSITY HEALTH SCIENCES
PROJECT TITLE: High-Performance Pattern Analysis for CT Colonography
GRANT NUMBER: 1 R01 CA114492-01A2

31. PRINCIPAL INVESTIGATOR: SEGAL, ERAN
AFFILIATION: WEIZMANN INSTITUTE OF SCIENCE
PROJECT TITLE: Genome-wide analysis of regulated chromosomal domains: From mechanisms to cancer
GRANT NUMBER: 1 R01 CA119176-01

32. PRINCIPAL INVESTIGATOR: TABER, LARRY A
AFFILIATION: WASHINGTON UNIVERSITY
PROJECT TITLE: Computational Modeling of Developmental Processes
GRANT NUMBER: 1 R01 GM075200-01A1

33. PRINCIPAL INVESTIGATOR: TAGARE, HEMANT D
AFFILIATION: YALE UNIVERSITY
PROJECT TITLE: Segmentation of Ultrasound Images
GRANT NUMBER: 1 R01 HL077810-01A2

34. PRINCIPAL INVESTIGATOR: XU, DONG
AFFILIATION: UNIVERSITY OF MISSOURI-COLUMBIA
PROJECT TITLE: New Scoring, Assembly and Evaulation Techiniques for Protein
Structure Prediction
GRANT NUMBER: 1 R21 GM078601-01

35. PRINCIPAL INVESTIGATOR: YIN, JOHN
AFFILIATION: UNIVERSITY OF WISCONSIN MADISON
PROJECT TITLE: Data-driven Computational Modeling of the Growth and Spread of
Viruses
GRANT NUMBER: 1 R21 AI071197-01

36. PRINCIPAL INVESTIGATOR: ZHOU, XIANGHONG JASMINE
AFFILIATION: UNIVERSITY OF SOUTHERN CALIFORNIA
PROJECT TITLE: Integrative Analysis of Cross-Platform Microarray Data
GRANT NUMBER: 1 R01 GM074163-01A1

37. PRINCIPAL INVESTIGATOR: ZHOU, Z HONG
AFFILIATION: UNIVERSITY OF TEXAS HLTH SCI CTR HOUSTON
PROJECT TITLE: High-Resolution CryoEM Reconstruction of Large Complexes
GRANT NUMBER: 1 R01 GM071940-01A2