Multiscale Bioimaging and Bioinformatics Laboratory

Research Description:
The Multiscale Bioimaging and Bioinformatics Laboratory at Tulane University has three research themes: 1. Fundamental research on multiscale signal/image representation and analysis; 2. Multiscale bioimaging analysis from organ and tissue levels to molecular and cellular levels; and 3. Bioinformatics in human genomics and cytogenetics. Currently, we are working on information extraction and integration from multiscale and multimodality genomic imaging data, with applications to the diagnosis of diseases and cancers such as leukemia and osteoporosis. One of our goals is to bring the biomedical technique into commercial use. We are using a multidisciplinary approach and working closely with computational scientists, statisticians, medical geneticists and industrial engineers at Tulane medical center and all over the world.

Sample Publications:


Funding Support:

NIH: Accurate detection of chromosomal abnormalities with multi-color image processing (1R15GM088802-01)
NIH: A New Paradigm for Integrated Analysis of Multiscale Genomic Imaging Datasets (1R21LM010042-01)
Ladies Leukemia League: Bioinformatics technique for accurate subtype classification of myelodysplastic syndrome
NSF: Multiscale Genomic Imaging Informatics (ABI 0849932)

For More Information

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