

Johns Hopkins University

Integrated Development of Novel Markers

Objective

Identify and test hypermethylated gene promoter regions in nuclear DNA and mutations in mitochondrial DNA as potential biomarkers for non-small cell lung cancer. For this purpose the laboratory is applying different approaches and technologies including gene expression analysis using the SAGE approach, gene-microarrays and variety of PCR-based technologies.

Program Description

The Biomarkers Developmental Laboratory at the Johns Hopkins University has assembled a team of scientists to identify new biomarkers for non-small cell lung cancer (NSCLC).

Specific Aims

- Identify markers for early detection in exfoliated cells and body fluids based on comparison between the lung cancer normal adjacent tissue, and bronchoalveolar lavage and serum DNA samples from lung cancer patients. They look for specific changes in methylation patterns of selected nuclear genes, their expression profiles and for mutations in mitochondrial DNA.
- Develop a robust assay and technology to detect a large number of individual mutations. In parallel they will examine a high-throughput chip technology.

Contact Information

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