

APPLICATION OF BIOSPECIMENS FOR SEARCH OF A GBM BIOMARKER

Dr. Hirendra Banerjee, Dr.V.Mangalik, Shavonda Evans, Megha Patel Department of Biology and Mathematics, Elizabeth City State University, University of North Carolina

Abstract

One of the goals of biospecimens research is to find effective biomarkers for different cancers. Glioblastoma Multiforme(GBM) is a malignant form of cancer of the brain with a very high mortality rate. In this study we have used the biospecimen samples obtained from different NCI biorepositories like the Duke University Brain Tumor Center to search for an effective biomarker for GBM. We have used different state of the art molecular and cell biology techniques like SELDI,2D-DIGGE,REAL-TIME PCR, FLOW CYTOMETRY and MICRO ARRAY ANALYSIS techniques in our search for this biomarker. Our initial studies have helped us to focus on several candidate genes and proteins on which we are currently trying to narrow down our search. Our work shows the usefulness and importance of biospecimen and biorepositories in Translational medicine.

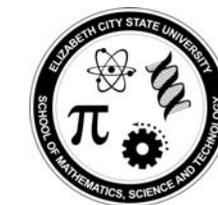
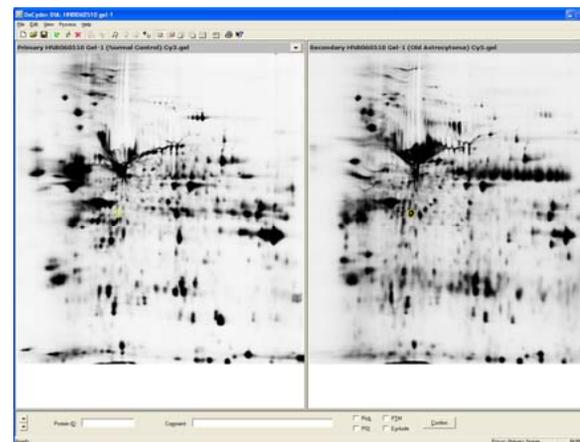
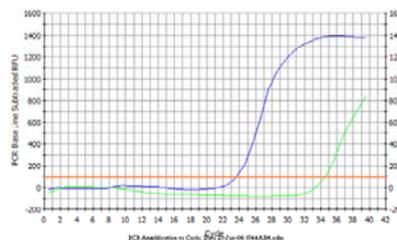
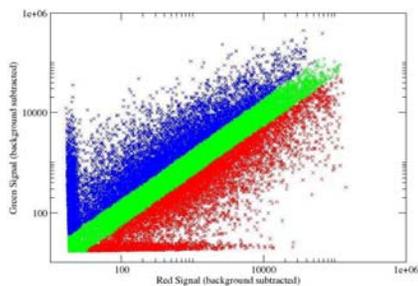
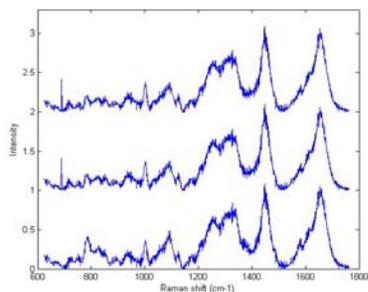
Objective

We are using cell lines, biopsy specimens, RNA, cDNA ,genomic DNA from different tumor banks like the Duke brain tumor repository, NC; Biochain INC, CA. and applying different molecular and cellular techniques for identification of a suitable prognostic and diagnostic marker for the brain cancer Glioblastoma multiforme.

Materials and Methods

We are using standard cell culture techniques to grow and propagate the cancer cells. We have done Micro Array analysis, Real Time PCR ,ELISA assays, 2D –GEL and MS analysis, RAMAN SPECTROSCOPY for effective biomarker detection.

Results



Discussion

We have shown here successful applications of various cellular, molecular, and proteomic techniques on biospecimens obtained from different tumor banks for our research.

Acknowledgements

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