

# CALIFORNIA STATE SCIENCE FAIR 2007 PROJECT SUMMARY

Name(s)

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**Project Number** 

**S0405** 

**Project Title** 

# **BRCA1** Methylation in Sporadic Breast Cancer

## Abstract

# **Objectives/Goals**

To determine the stage in cancer in which there is a loss of BRCA1 expression, what the loss of this expression is due to. And what the effects of this loss are on the development of sporadic breast cancer.

#### Methods/Materials

Throough Immuno Histo Chemistry, Hemotoxin & Eosin staining, Laser Capture Microdissection we will examine our collected multicutural cohort of patients, analysizing tumor, lymph node and normal breast tissue for each. Using a nested PCR approach we will distinguish whether the patients have a loss of the BRCA1 protein or not.

#### Results

Distinctions between the patients who had a higher tumor grade percentage and the BRCA1 loss of expression were seen, as well as the effects of the BRCA1 methylation on the growth of tumors.

#### Conclusions/Discussion

INCONCLUSIVE DATE

At this point many of the procedures and protocols are being optimized for study and patient samples are being garnered.

## **Summary Statement**

This project is about looking at BRCA1 loss abd nethylation and their correlation with the development of sporadic breast cancer.

### Help Received

Research was done at USC Norris in the labaratory of Dr. Michael Press, under the mentorship of Dr. Melinda Epstein