

Nathalie Strittmatter: The role of choline kinase in human breast cancer tissue

INTRODUCTION: Breast Cancer (BC) is the most frequently (26%) diagnosed cancer the second most common cause for death from cancer in women of Western countries [1]. Several risk factors such as being female, age, family history, BRCA1/BRCA2 mutation, overweight, alcohol consumption, postmenopausal hormone therapy and chest radiation have been identified during the last decades [2]. Many Magnetic resonance studies have shown an elevated level of choline kinase ChK in breast cancer cell lines [3]. It was our aim to show a correlation between the amount of choline kinase in human breast cancer tissue and several other prognostic factors such as TNM-stage, Receptor-stage and patients age.

METHODS: 60 deep frozen breast cancer samples were obtained from the Massachussetts General Hospital Cancer Center. Samples were sectioned by cryostat cutting. Every 450 µm cuts were stained with H&E and analyzed by a Pathologist. Cancerous parts of the remaining freezed slides were pointed out by the Pathologist on the stained slides and have been collected into protein extraction buffer. After sonication and spinning, the supernatant was taken for protein quantification and Western Blot. Chk was detected at ~48kDa.

RESULTS & DISCUSSION yet to come

REFERENCES:

1. *Cancer facts and figures 2008*. American Cancer Society. 2008. p. (Accessed Feb 11 2008 at <http://www.cancer.org/downloads/STT/2008CAFFfinalsecured.pdf>).
2. *What you need to know about breast cancer*. Nacional Cancer Institute. 2007. p. (Accessed Feb 11 2008 at <http://www.cancer.gov/cancertopics/wyntk/breast>).
3. Ramírez de Molina A, B.-C.M., Gutiérrez R, Rodríguez-González A, Olmeda D, Megías D, Lacal JC, *Choline kinase activation is a critical requirement for the proliferation of primary human mammary epithelial cells and breast tumor progression*. *Cancer Res*, 2004. **64**(18): p. 6732-9.