

The role of BCAR4 in tamoxifen resistant breast cancer

Propositions

1. Patients with a higher BCAR4 mRNA level in the primary breast cancer are at increased risk for failure of tamoxifen treatment (this thesis)
2. Due to the specificity of its expression in the cancer cells, targeting of BCAR4 in breast cancers would likely cause minimal side effects (this thesis)
3. Functional protein pathway activation mapping, underpinned by protein phosphorylation, gives more insight into the transitional process from an estrogen-dependent to an estrogen-independent breast cancer phenotype than transcript profiling (this thesis)
4. BCAR4 expression analysis may identify a subgroup of breast cancer patients with increased ERBB2/ERBB3 signaling, independent of gene amplification or over-expression of ERBB2 (this thesis)
5. Our results advocate evaluation of the effect of combining endocrine and ERBB2-targeted therapies in the subgroup of patients with breast cancer characterized by high BCAR4 expression without amplification or overexpression of ERBB2 (this thesis)
6. The more we know about the cancer types underlying the heterogeneity of the disease, the greater the opportunity to refine treatment choice (this thesis; Duffy et al., *Cancer Treat Rev* 2011; 37: 151-9; Riggins et al., *Endocr Relat Cancer*. 2010; 17: R213-31)
 7. Neoplasms are microcosmos of evolution (Merlo et al, *Nat Rev Cancer*. 2006; 6:924-35)
8. Adipose tissue-derived hormones may mediate the poor prognosis of obese women with breast cancer (Perks et al., *Endocrinol Metab Clin N Am*. 2011; 40:485-507)
 9. Ethical standards promote essential values to collaborative work (Resnik DB. 2010. *What is Ethics in Research and Why is It Important?*).
10. The social returns to investment in new medical knowledge are enormous (Murphy KM and Topel R. 1999. *The Economic Value of Medical Research*)
 11. "What the mind of (wo)man can conceive and believe, it can achieve" (Napoleon Hill)