

# 3<sup>rd</sup> International Conference on Medicinal Chemistry & Computer Aided Drug Designing

December 08-10, 2014 DoubleTree by Hilton Hotel San Francisco Airport, USA

## The need of a computer aided program to correlate different breast cancer biomarkers in screening, diagnosis and prognosis of breast cancer

Ahmed Muthanna Abdulhameed  
Universiti Sains Malaysia, Malaysia

Breast cancer is by far the most common cancer occurs in women worldwide with approximately 1.67 million new breast cancer cases diagnosed in 2012 (about 12% of all cancers). At the present time, there is a limited number of screening and early detection methods for breast cancer. This study was carried out to assess the clinical usefulness of carbohydrate antigen (CA 15-3) and interleukin 2 (IL-2) levels and gene expression as biomarkers in invasive breast cancer patients pre and post primary chemotherapy. Ethical approval was obtained to recruit 10 patients in this study. Whole blood was collected pre and post primary chemotherapy. In addition, the histological findings, tumor stage and other patients' data were obtained from the medical record. Plasma was separated to determine the CA 15-3 level and IL-2 level by ELISA pre and post-treatment. The buffy coat was used to perform the gene expression before and after chemotherapy by RT-PCR. The results revealed that eight out of the 10 patients showed CA 15-3 levels less than the cutoff ( $<30$  U/mL). There was no significant difference of CA 15-3 levels in the samples of the patients pre and post-chemotherapy ( $p$  value=0.878). The results of IL-2 level showed a significant difference ( $p<0.05$ ) of IL-2 levels pre and post-chemotherapy. In conclusion, we can notice that there is a contrast between the tumor markers of the breast cancer patients. Therefore, it is crucial to find out a computer program that can correlate more than one tumor marker in order to give better prognostic results.

### Biography

Ahmed Muthanna Abdulhameed completed his BSc of biochemical technology from University of Technology in 2009. He had worked as a Demonstrator in Baghdad Pharmacy School for 4 years. He is currently a Master's student at the Advanced Medical and Dental Institute, Universiti of Sains Malaysia. He has two papers under the publishing process in reputed journals.

[ahmad\\_al\\_tuhafi@yahoo.com](mailto:ahmad_al_tuhafi@yahoo.com)