

4th World Congress on Cancer Science & Therapy

October 20-22, 2014 DoubleTree by Hilton Hotel Chicago-North Shore Conference Center, USA

Tumor-associated antigens and their cognate autoantibodies as molecular markers for breast cancer diagnostics

Kiyamova R G, Kostianets O I and Filonenko V V
National Academy of Sciences, Ukraine

Over the last few years emerging evidence suggests that tumor-associated antigens (TAAs) and their cognate autoantibodies serve as molecular markers of human malignancy. The principle of the immunological detection of molecular changes in tumor cells by autoantibodies which was the main conception of this work allowed us to identify 41 autoantigens from medullary breast carcinoma (MBC) tumor by modified SEREX (*serological analysis of recombinant tumor cDNA expression libraries*) approach. Preliminary phage based allogenic screening followed by large-scale ELISA based allogenic screening of MBC antigens with sera of breast cancer patients of different histological grades revealed 6 TAAs with highest immunogenicity in sera of breast cancer patients compared with sera of healthy individuals. Combination of these 6 TAAs in a single panel may differentiate cancer patients and healthy individuals with 70% of sensitivity and 91% specificity. This panel of 6 TAAs can be considered as the base for creating of serological test-system for non-invasive breast cancer diagnostics in future.

r.g.kiyamova@imbg.org.ua