

Autoantibodies to tumor proteins in patient serum may serve as biomarkers in breast cancer diagnosis or as a potential targeted therapeutic when conjugated to drugs or radiotherapies. The tumor associated antigens (TAAs) to which they bind may be of further diagnostic or prognostic value. In order to identify TAAs, a cDNA library was created from a patient breast tumor and expressed in lambda phage. Expressed protein fragments were tested against autologous patient serum to identify potential TAAs using a modified technique based on serological analysis of recombinant cDNA expression libraries (SEREX) that allows for much smaller quantities of source material and reduces library production time. Identified TAAs and serum autoantibody concentrations against those proteins will be presented in the context of developing a new customized therapy for patients with breast cancer.