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(54) Title: BLOOD PLASMA BIOMARKERS FOR BEVACIZUMAB COMBINATION THERAPIES FOR TREATMENT OF BREAST CANCER

(57) Abstract: The present invention provides methods for improving the treatment effect of a chemotherapy regimen of a patient suffering from breast cancer, in particular locally advanced, recurrent or metastatic HER-2 negative breast cancer, by adding bevacizumab (Avastin®) to a chemotherapy regimen by determining the expression level, in particular the blood plasma expression level, of one or more of VEGFA, VEGFR2 and PLGF relative to control levels of patients diagnosed with breast cancer, in particular locally advanced, recurrent or metastatic HER-2 negative breast cancer. In particular, the present invention provides methods of improving the treatment effect, wherein the treatment effect is the progression-free survival of the patient. The present invention further provides for methods for assessing the sensitivity or responsiveness of a patient to bevacizumab (Avastin®) in combination with a chemotherapy regimen, by determining the expression level, in particular the blood plasma expression level, of one or more of VEGFA, VEGFR2 and PLGF relative to control levels in patients diagnosed with breast cancer, in particular locally advanced, recurrent or metastatic HER-2 negative breast cancer.