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(54) **Title:** USE OF BIOMARKERS IN DETERMINING SUSCEPTIBILITY TO DISEASE TREATMENT

(57) **Abstract:** The present invention refers to a method of predicting susceptibility of a subject suffering from cancer to a treatment with an anti-cancer drug, wherein the method comprises detecting the presence or absence of a genetic alteration in a long non-coding RNA (lncRNA) that resides in an antisense strand of an oncogene, wherein the genetic alteration disrupts expression of the oncogene, and wherein the subject is predicted to be more susceptible to the treatment if the genetic alteration is present. In particular, the genetic alteration is a silent G>A mutation at Q787Q of the oncogene epidermal growth factor receptor (EGFR). Also disclosed herein is a method of treating a subject suffering from cancer, who was shown to have a genetic alteration in lncRNA that resides in an antisense strand of an oncogene.