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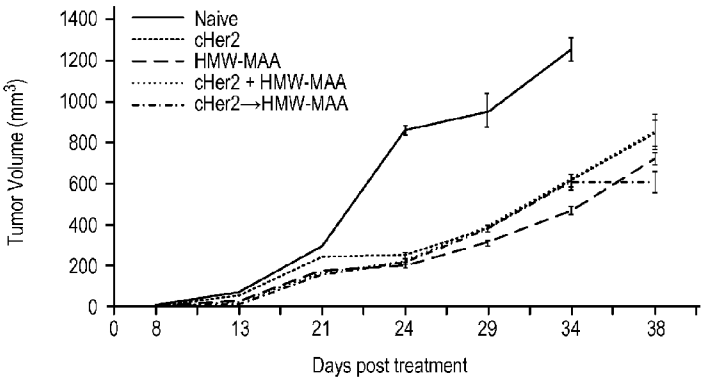


Figure 76

(57) Abstract: This invention provides methods and compositions for using evaluating biomarker expression in a disease and providing a multi-targeted Listeria-based immunotherapeutic approach against said disease. In a related aspect, the invention relates to a method of treating a disease in a subject, the method comprising the steps of: a. obtaining a biological sample from said subject; b. evaluating the expression of a predetermined number of biomarkers in said biological sample; c. administering to said subject a composition comprising a recombinant Listeria strain, said strain comprising a nucleic acid sequence encoding at least one fusion protein, wherein said fusion protein comprises a biomarker identified in said biological sample, wherein said biomarker is associated with said disease, wherein said biomarker is fused to a PEST-containing polypeptide, and wherein each fusion protein within said Listeria comprises a ' different biomarker, thereby treating said disease in said subject.

WO 2015/126921 A1