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(54) **METHODS OF ASSAYING SENSITIVITY OF CANCER STEM CELLS TO THERAPEUTIC MODALITIES**

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(58) **Field of Classification Search**  
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See application file for complete search history.

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(57) **ABSTRACT**

The present invention is directed to methods of measuring the proliferative ability of individual patient cancer stem cells. The present invention provides a method for treating a cancer patient according to an assay of the individual patient's tumor's cancer stem cell sensitivity, by measuring the proliferative ability of cancer stem cells from the patient. By the methods of the present invention it is possible to treat individual cancer stem cells presented in tumor cells. Methods of detecting and enumerating cancer stem cells in hybrid spheroids comprised of fibroblasts and tumor cells are also provided by the present invention. The present invention also contemplates a method for drug and other treatment development, wherein the effects of a drug or combination of drugs or other treatments are determined on the individual patient's cancer stem cells.

**2 Claims, 6 Drawing Sheets**