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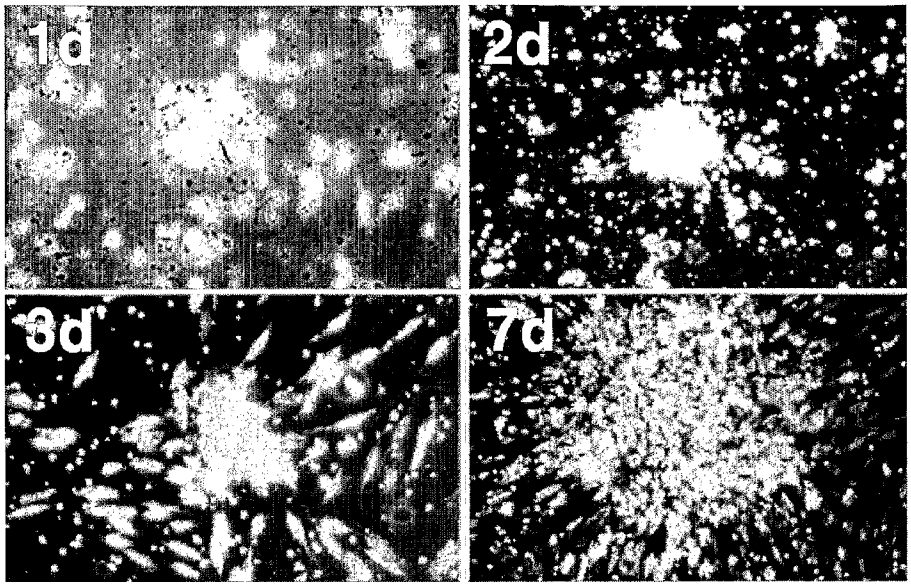
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(54) Title: USE OF MESENCHYMAL STEM CELLS GENETICALLY MODIFIED TO EXPRESS A SUICIDE GENE FOR TREATING A CANCER



(57) Abstract: Mesenchymal stem cells expressing a suicide gene show excellent and highly selective anticancer effects against cancer tissues through the selective conversion of a prodrug of an anticancer agent to the anticancer agent at around the cancer. Also disclosed herein are a pharmaceutical composition for treating a cancer comprising the mesenchymal stem cell; a kit for treating a cancer comprising an expression vector comprising the suicide gene, the mesenchymal stem cell and the prodrug; and a method for treating a cancer patient, which comprises successively administering the mesenchymal stem cell and the prodrug to the patient.

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