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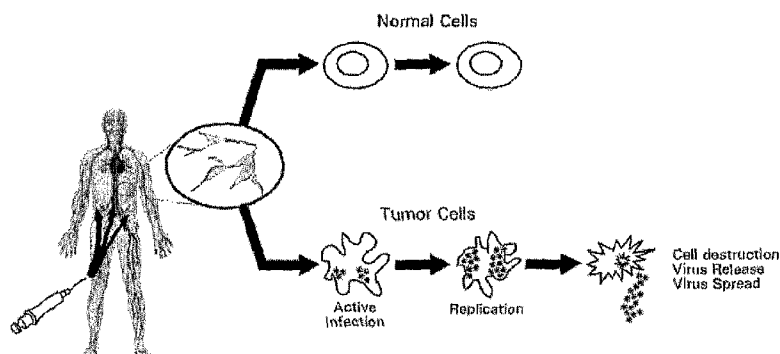
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(54) Title: SENECA VALLEY VIRUS BASED COMPOSITIONS AND METHODS FOR TREATING DISEASE



(57) Abstract: [0384] The present invention relates to a novel RNA picornavirus that is called Seneca Valley virus ("SVV"). The invention provides isolated SW nucleic acids and proteins encoded by these nucleic acids. Further, the invention provides antibodies that are raised against the SVV proteins. Because SVV has the ability to selectively kill some types of tumors, the invention provides methods of using SVV and SVV polypeptides to treat cancer. Because SVV specifically targets certain tumors, the invention provides methods of using SW nucleic acids and proteins to detect cancer. Additionally, due to the information provided by the tumor-specific mechanisms of SVV, the invention provides methods of making new oncolytic virus derivatives and of altering viruses to have tumor-specific tropisms.