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Gene transduction by means of parvoviral and chimeric adenoviral vectors for cancer therapy

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The present work gives two novel aspects for the use of parvoviral expression vectors for cancer gene therapy. On one hand a methodology was developed that should allow the oncotoxin NS1 to be used as a transgene for tumor cell killing in a other viral vector contexts, different from parvoviruses. The antisense strategy employed in this work can have a wider application for the production of any viral vector harboring a transgene that is toxic to the packaging producer cells. On the other hand a new property of parvoviral vectors, namely their tropism for lymphoid tissues have been elucidated, which together with a success in tumor suppression by means of chemokine-transducing parvovirus, gives credit to the suitability of these agents for mediating anticancer immune interventions.