**Supplementary Table S1.** Search strategy in the different database.

1. **PubMed**

("glioma" OR "glial-cell-tumor" OR "glia-tumor" OR "glial-tumor" OR "astrocytoma" OR "astroglioma" OR "oligoastrocytoma" OR "glioblastoma" OR "glyoblastoma" OR "pleomorphic-xanthoastrocytoma" OR "ependymoma" OR "ependymal-glioma" OR "ependymal-tumor" OR "ganglioglioma" OR "gliosarcoma" OR "ependymoblastoma" OR "subependymoma" OR "subependymal-tumor" OR "cerebellar-sarcoma" OR "oligodendroblastoma")
AND
("Oncolytic Viruses" OR "Oncolytic Viruses" OR "Oncolytic Virus" OR "Virus, Oncolytic" OR "Viruses, Oncolytic" OR "Oncolytic Virotherapies" OR "Virotherapy, Oncolytic" OR "Oncolytic Virus Therapy" OR "Oncolytic Virus Therapies" OR "Therapies, Oncolytic Virus" OR "Therapy, Oncolytic Virus" OR "Virus Therapy, Oncolytic" OR "oncolytic immunotherapy" OR "oncolytic treatment" OR "oncolytic adenovirus" OR "oncolytic vaccine" OR "oncolytic herpes virus")

1. **Embase**

('glioma'/exp OR ‘glioma ’:ti,ab,kw OR ‘ganglioglioma ’:ti,ab,kw OR ‘glia tumor ’:ti,ab,kw OR ‘glia tumour ’:ti,ab,kw OR ‘glial tumor ’:ti,ab,kw OR ‘glial tumour ’:ti,ab,kw OR ‘glial cell tumor ’:ti,ab,kw OR ‘glial cell tumour ’:ti,ab,kw OR 'astrocytoma'/exp OR ‘astrocytoma ’:ti,ab,kw OR ‘astroglioma ’:ti,ab,kw OR ‘oligoastrocytoma ’:ti,ab,kw OR ‘glioblastoma’/exp OR ‘glioblastoma ’:ti,ab,kw OR ‘glyoblastoma ’:ti,ab,kw OR 'pleomorphic xanthoastrocytoma'/exp OR 'pleomorphic xanthoastrocytoma ':ti,ab,kw OR ‘ependymoma’/exp OR ‘ependymoma ’:ti,ab,kw OR ‘ependymal glioma ’:ti,ab,kw OR ‘ependymal tumor ’:ti,ab,kw OR ‘ependymal tumour ’:ti,ab,kw OR ‘ependymoblastoma’/exp OR ‘ependymoblastoma ’:ti,ab,kw OR ‘subependymoma’/exp OR ‘subependymoma ’:ti,ab,kw OR ‘subependymal neoplasm ’:ti,ab,kw OR ‘subependymal tumor ’:ti,ab,kw OR ‘subependymal tumour ’:ti,ab,kw OR ‘gliosarcoma’/exp OR ‘gliosarcoma ’:ti,ab,kw OR ‘oligodendroglioma’/exp OR ‘oligodendroglioma ’:ti,ab,kw OR ‘oligodendroblastoma ’:ti,ab,kw OR ‘cerebellar sarcoma ’:ti,ab,kw)
AND

(‘Oncolytic Viruses’/exp OR ‘Oncolytic Viruses ’:ti,ab,kw OR ‘Oncolytic Virus ’:ti,ab,kw OR ‘Virus, Oncolytic ’:ti,ab,kw OR ‘Viruses, Oncolytic ’:ti,ab,kw OR ‘Oncolytic Virotherapies’/exp OR ‘Oncolytic Virotherapies ’:ti,ab,kw OR ‘Virotherapies, Oncolytic ’:ti,ab,kw OR ‘Virotherapy, Oncolytic ’:ti,ab,kw OR ‘Oncolytic Virus Therapy ’:ti,ab,kw OR ‘Oncolytic Virus Therapies ’:ti,ab,kw OR ‘Therapies, Oncolytic Virus ’:ti,ab,kw OR ‘Therapy, Oncolytic Virus ’:ti,ab,kw OR ‘Virus Therapies, Oncolytic ’:ti,ab,kw OR ‘Virus Therapy, Oncolytic ’:ti,ab,kw OR ‘oncolytic immunotherapy ’:ti,ab,kw OR ‘oncolytic treatment ’:ti,ab,kw OR ‘oncolytic adenovirus ’:ti,ab,kw OR ‘oncolytic vaccinec ’:ti,ab,kw)

1. **Web of Science Core Collection**

((TS=((“glioma ” OR “glial cell tumor ” OR “glial cell tumour ” OR “glia tumor ” OR “glia tumour ” OR “glial tumor ” OR “glial tumour ” OR “astrocytoma ” OR “astroglioma ” OR “oligoastrocytoma ” OR “glioblastoma ” OR “glyoblastoma ” OR “pleomorphic xanthoastrocytoma ” OR “ependymoma ” OR “ependymal glioma ” OR “ependymal tumor ” OR “ependymal tumour ” OR “ependymoblastoma ” OR “subependymoma ” OR “subependymal neoplasm ” OR “subependymal tumor ” OR “sybependymal tumour ” OR “ganglioglioma ” OR “gliosarcoma ” OR “cerebellar sarcoma ” OR “oligodendroglioma ” OR “oligodendroblastoma ”)))
AND
((TS=((“Oncolytic Viruses ” OR “Oncolytic Virus ” OR “Virus, Oncolytic ” OR “Viruses, Oncolytic ” OR “Oncolytic Virotherapies ” OR “Virotherapies, Oncolytic ” OR “Virotherapy, Oncolytic ” OR “Oncolytic Virus Therapy ” OR “Oncolytic Virus Therapies ” OR “Therapies, Oncolytic Virus ” OR “Therapy, Oncolytic Virus ” OR “Virus Therapies, Oncolytic ” OR “Virus Therapy, Oncolytic ” OR “oncolytic immunotherapy ” OR “oncolytic treatment ” OR “oncolytic adenovirus ” OR “oncolytic vaccine ”)))

1. **Cochrane**

#1: [mh “Glioma”]

#2: (glioma OR (glial NEXT cell NEXT tumor ) OR (glial NEXT cell NEXT tumour ) OR (glia NEXT tumor ) OR (glia NEXT tumour ) OR (glial NEXT tumor ) OR (glial NEXT tumour ) OR astrocytoma OR astroglioma OR oligoastrocytoma OR glioblastoma OR glyoblastoma OR (pleomorphic NEXT xanthoastrocytoma ) OR ependymoma OR (ependymal NEXT glioma ) OR (ependymal NEXT tumor ) OR (ependymal NEXT tumour ) OR subependymoma OR (subependymal NEXT neoplasm ) OR (subependymal NEXT tumor ) OR (subependymal NEXT tumour ) OR ganglioglioma OR gliosarcoma OR (cerebellar NEXT sarcoma ) OR (blastoma NEXT medullae) OR oligodendroglioma OR oligodendroblastoma ):ti,ab,kw

#3: #1 OR #2

#4: [mh “Oncolytic Viruses”]

#5: (Oncolytic Viruses OR (Oncolytic NEXT Virus ) OR (Virus NEXT Oncolytic ) OR (Viruses NEXT Oncolytic )

#6:[mh “Oncolytic Virotherapy”]

#7: (Oncolytic NEXT Virotherapies ) OR (Virotherapies NEXT Oncolytic ) OR (Virotherapy NEXT Oncolytic ) OR (Oncolytic NEXT Virus NEXT Therapy ) OR (Oncolytic NEXT Virus NEXT Therapies ) OR (Therapies NEXT Oncolytic NEXT Virus ) OR (Therapy NEXT Oncolytic NEXT Virus ) OR (Virus NEXT Therapies NEXT Oncolytic ) OR (oncolytic NEXT immunotherapy ) OR (oncolytic NEXT treatment) OR (oncolytic NEXT adenovirus ) OR (oncolytic NEXT vaccine)

#8: #4 OR #5 OR #6 OR #7

#9: #3 AND #8