

Table 3. Select completed clinical trials of cancer vaccines in combination with other immunotherapeutic or standard-of-care approaches

| Vaccine/therapy name | Therapeutic target | Patient population | Study phase | Tumor type | Median OS (months) | Median PFS (months) | Study identifier |
|--|---|---------------------------------|-------------|--|--------------------|---------------------|------------------|
| Immuncell-LC + TMZ | Autologous CIK cells + chemotherapy | Adult Older adult | 3 | Newly diagnosed glioblastoma | 22.5 | 8.1 | NCT00807027 |
| | Autologous whole-tumor cell vaccines + GM-CSF+ adoptive transfer of T lymphocytes | Adult, Older Adult | 2 | Primary or Recurrent Astrocytoma or Oligodendroglioma | 12 | N/A | NCT00004024 |
| - | Autologous tumor cell vaccine + GM-CSF + <i>ex vivo</i> activated T-cell adoptive therapy | Adult, Older Adult | 2 | Glioblastoma | N/A | N/A | NCT00003185 |
| TVAX | TVI-Brain-1 (autologous whole-tumor cell vaccine) + adoptive transfer of T lymphocytes | Adult, Older Adult | 1/2 | Recurrent grade IV glioma | N/A | N/A | NCT01081223 |
| TVAX | TVI-Brain-1 (autologous whole-tumor vaccine) + GM-CSF + adoptive transfer of anti-CD3-activated lymphocytes | Adult, Older Adult | 2 | Recurrent grade IV glioma | N/A | N/A | NCT01290692 |
| | Autologous tumor-derived heat shock protein peptide-complex (HSPPC-96) + chemotherapy | Adult, Older Adult | 2 | Newly diagnosed glioblastoma | N/A | N/A | NCT00905060 |
| PEP-III-KLH | Anti- EGFRvIII vaccine + GM-CSF | Adult, Older Adult | 2 | Newly diagnosed <i>EGFRvIII</i> -expressing glioblastoma | 23.6 | 15.2 | NCT00643097 |
| Rindopepimut (CDX-110) + bevacizumab | Anti-EGFRvIII vaccine + anti-VEGF-A | Adult, Older Adult | 2 | Relapsed, EGFRvIII-positive glioblastoma | N/A | 3.7 | NCT01498328 |
| Rindopepimut (CDX-110) + sargramostim + TMZ | Anti-EGFRvIII vaccine + GM-CSF + chemotherapy | Adult, Older Adult | 2 | Glioblastoma | 21.8 | 9.2 | NCT00458601 |
| Rindopepimut (CDX-110) + adjuvant TMZ | Anti-EGFRvIII vaccine + GM-CSF + chemotherapy | Adult, Older Adult | 3 | Newly diagnosed glioblastoma | 20.1 | N/A | NCT01480479 |
| Autologous tumor cell vaccine + sargramostim | Autologous tumor cell vaccine + GM-CSF | Child, Adult, Older Adult | 2 | Recurrent or refractory brain tumor | N/A | N/A | NCT00014573 |
| | Autologous DCs pulsed with tumor lysates + radiotherapy + chemotherapy | Adult, Older Adult | 2 | Glioblastoma | 23.4 | 12.7 | NCT01006044 |
| Trivax + TMZ + Surgery + Radiotherapy | Tumour-lysate Charged DCs + Chemotherapy + Surgery + Radiotherapy | Child, Adult, Older Adult | 2 | High-grade glioma | N/A | N/A | NCT01213407 |
| IMA950 + Hiltonol + TMZ | Multi tumour-associated peptides (TUMAPs) vaccine+ poly-ICLC + chemotherapy | Adult, Older Adult | 1/2 | Glioblastoma | 19 | N/A | NCT01920191 |
| | Type-1 α DCs (α DC1) loaded with glioma-associated antigen (GAA) epitopes + poly-ICLC | Adult, Older Adult | 1/2 | Recurrent malignant gliomas | 32.88 | N/A | NCT00766753 |
| SL-701 + poly-ICLC | Synthetic peptides + poly-ICLC | Adult, Older Adult | 1/2 | Recurrent glioblastoma | 11.7 | N/A | NCT02078648 |
| | Autologous DCs pulsed with tumor lysate + standard therapy | Child, Adult | 2 | Advanced solid tumors (including CNS tumors) | N/A | N/A | NCT02496520 |

CIK: cytokine-induced killer; CNS: central nervous system; DC: dendritic cell; EGFRvIII: epidermal growth factor receptor variant III; GM-CSF: granulocyte-macrophage colony stimulating factor; N/A: not available; OS: overall survival; PFS: progression-free survival; poly-ICLC: polyinosinic-polycytidylic acid with poly-L-lysine and carboxymethylcellulose; TMZ: temozolomide

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