Tumor-infiltrating lymphocytes (TILs) following intratumoral administration of ONCOS-102 are associated with prolonged overall survival in last line solid tumor patients

**INTRODUCTION**

ONCOS-102 (Ad5/3-D24-GMCSF) is a tumor-targeted immune activating adenovirus coding for human GM-CSF. Intratumoral ONCOS-102 induces a systemic CD8+ T cell response against patient’s unique cancer cells:

- **OncoTACT™** strategy
  - Systemic anti-tumor immune response: autologous tumor-immune activating ONCOS-102 induces a systemic CD8+ T cell response that is specific for each patient.
  - Dose cohorts: 3x10^8 - 1x10^10 VP
  - Dose: viral particles

**Patient characteristics**

- Median 2.5 years since diagnosis
- 100% chemotherapy refractory (up to 16 courses)
- 66% had prior surgery
- 50% had prior radiotherapy

**ONCOS-102 targets multiple tumor-derived antigens by inducing several tumor-specific CD8+ T cell populations**

**Figure 1.** IFN-γ ELISPOT for tumor specific CD8+ T cells was performed. Purified CD8+ were pre-sensitized with peptide-pulsed, irradiated autologous PBMCs depleted of CD4+ and CD8 T cells and tested on day 10 by IFN-γ ELISPOT assay for recognition of autologous antigen-presenting cells.

**CONCLUSIONS**

- Local ONCOS-102 treatment induced a systemic tumor-specific CD8+ T cell response in the last-line refractory solid tumor patients who showed no evidence of anti-tumor immunity at baseline.
- ONCOS-102 targets multiple tumor-derivated antigens as demonstrated by the induction of several tumor-specific CD8+ T cell populations within one patient.
- Induction of tumor-specific cytotoxic CD8+ T cells was related to clinical benefit.
- Infiltration of CD8+ T cells was seen in 92% (11/12) of patients following ONCOS-102 administration both in injected and non-injected sites.
- Post-treatment increase in TILs correlated with OS.

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