



## Licensing Opportunity

### Hobit: natural general booster of immune system

**Market sector:** Immunology

**Summary:** This invention describes the manipulation of Hobit, a gene that is essential in making T lymphocytes professional killer cells. Enhancing Hobit in T lymphocytes increases the efficacy of tumor- and virus-specific T cells (e.g. IFNG production) that are used for adoptive immunotherapy and (2) vaccines. For this we (1) developed retro- and lenti-viral vectors that give strong expression in *in vitro* generated T cells that are to be used for reinfusion for medical purposes and (2) identify specific regulators of HOBIT expression to be able to manipulate expression of this factor by means of extracellular stimuli. These will subsequently be added to vaccines.

**Key benefits:**

- Anti-tumor and anti-viral treatment
- Vaccin improvement

**Applications:**

- patients with cancer could benefit from tumor-specific adoptive immunotherapy
- patients with persistent viral infections (HIV, CMV) could benefit from virus-specific adoptive immunotherapy
- general population for improvement of vaccines

**Patent status:** Patent application filed in 2006.

**R&D Status:** Proof of Concept established. We have substantial evidence that we can enhance IFNG production by manipulating Hobit in a killer cell line (2006).