Expansion of natural killer cells for viral infection and cancer

SUMMARY

The immune system has evolved different strategies to prevent and fight cancer and infections. Natural Killer (NK) cells are an innate immune cell type able to kill tumor and/or infected cells. The team has identified a specific peptide whose presence is shared by a human virus and certain tumors that leads to expansion of a specific Natural Killer cell type. The project aims for the preclinical development of a vaccine prototype for treatment of these tumors as well as of the respective human viral infection. The advantage of this approach is that cancer patients can benefit from this boost for the immune system that is ready not only to fight this virus infection but also relapsing tumors.

PROJECT GOALS

- Generation of a novel vaccine prototype for treatment of specific tumors as well as of a viral infection
- *In vivo* Proof-of-Concept
- Preclinical development of the vaccine

LONG-TERM GOALS

- Perform phase I/II clinical trial
- License to Pharma or startup foundation

PREVIOUS SPARK FUNDING

- Track 1 2018