

Investigating new immunotherapy combinations for the treatment of bladder cancer

Research area:

Cancer

Brief description

Localized bladder cancer can be treated with locally administrated BCG or chemotherapy delivered into the bladder lumen. However tumor recurrence is high for both local and metastatic disease. Our research focuses on studying how combinations of locally administrated immunotherapies can aid a systemic anti-tumor response so that metastatic disease is also prevented.

Aim

Study how combinations of locally administrated immunotherapies can aid a systemic anti-tumor response to prevent recurrence and metastatic disease.

Background

BCG immunotherapy has been used since 1970s for the treatment of localized bladder cancer. Although effective, side effects and relapses warrant that novel therapies are developed. Our group have studied both agonistic CD40 therapies and check-point blockers in an experimental bladder cancer model and shown that these therapies can both be used locally and generate long-term tumor protection. PD1 and PDL1 blocking antibodies are currently being evaluated in clinical trials and data looks promising. However not all patients respond and therefore combinations therapies that increase effectiveness but minimize adverse events are warranted.

Project plan

The project will involve work with tumor models to assess local and systemic therapies and their combinations to determine the effect on tumor growth, but also how the immune system is affected by the therapies. Commonly this involves flow cytometry and well as ELISA based techniques. It is advised that you have a FELASA certificate to be able to perform the project.

Contact details

If you have a unique interest into immunology and cancer immunotherapy and are highly motivated to pursue research, do not hesitate to contact me.

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