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# Mathematical models on tumour-lymphocyte dynamics and checkpoint blockade therapy

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Cytotoxic T-lymphocytes, commonly called killer T cells, are among our immune system's most potent and well-understood weapons against cancer. However, checkpoint receptors such as CTLA-4 and PD-1 on the surfaces of T cells inhibit their activation and proliferation. These receptors can be blocked by antibody drugs, which pave the way for an anti-tumour immune response. We will present work-in-progress mathematical models on tumour-lymphocyte dynamics in the presence of checkpoint blockade therapy, discuss their clinical implications, and more broadly discuss the current modelling efforts in this area.

**Primary author:** ZHENG, Collin (University of Sydney)

**Presenter:** ZHENG, Collin (University of Sydney)

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