

## **ANZHNCS Foundation: Adenoid cystic cancer**

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We have embarked on developing novel salivary gland adenoid cystic carcinoma (AdCC) organoid models derived directly from patient tumours. These tumoroid lines have given us a glimpse into the biology of this rare tumour, including its “neuronal-like” gene expression and cyto-differentiation programs. These data reflect the predilection of AdCC to invade nerves and metastasise via this route. By understanding these tumor cell properties, it is feasible to develop novel therapeutic approaches for this recalcitrant cancer. In parallel, we have explored the tumour microenvironment (TME) of AdCC and in particular focused on tumour infiltrating lymphocytes (TIL) within and around the tumor. In particular, we have utilised research platforms that have been pioneered by our lab that allow documentation of the TME landscape and immune contexture as well as TIL functionality. These investigations have opened the opportunity to manipulate the TME with the intent of boosting the efficacy of immunotherapies in this classically immunologically “cold” or “immune desert” tumour. Collectively these investigations are informing our clinical trials portfolio with the intent of improving and broadening the scope of treatments for our patients.