

# Investigating MCV T Antigens in Merkel Cells as the Cell of Origin for MCC

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## Public-facing abstract

This project asks a deceptively simple cancer-origin question: can Merkel cell polyomavirus push mature Merkel cells back into a growth state that could seed Merkel cell carcinoma? The team used an inducible mouse model to turn on viral T antigens in ATOH1-marked Merkel cells, then counted labeled cells in skin touch domes after induction. The early result was clarifying: T antigen expression did not significantly expand the mature Merkel cell population, which argues against mature Merkel cells being the likely starting point for this cancer. The next step is to test marker overlap and viral antigen expression more directly, so the field can keep narrowing the true cell of origin and the pathways most worth targeting.