# Allogeneic, IL-2-independent tumor-infiltrating lymphocytes expressing membrane-bound IL-15 (cytoTIL15 ) eradicate tumors in a melanoma PDX model through recognition of shared tumor antigens

Adoptive cell therapy with tumor-infiltrating lymphocytes (TILs) has demonstrated promise in clinical trials for patients with solid tumors. Currently, TIL therapy requires IL-2 administration to support TIL expansion and survival, but this cytokine is associated with T cell exhaustion and can result in severe toxicities that limit patient eligibility.[1] To this end, we genetically engineered TILs to express membrane-bound IL-15 (mbIL15) under the control of cytoDRiVE® technology (cytoTIL15™), which allows regulation of protein expression via a drug-responsive domain (DRD) upon acetazolamide (ACZ) administration. IL-15 is a preferred cytokine over IL-2 to mediate TIL activation and expansion bec<</MCn7ss7(n)]TJETQ EMC /P <</MCID 144>>BDC q0.00005182 0 3477.6 2268 reW* nBT/F3 22.44 Tf1 0 0 1 70s7(n)]TJ0b8es3 22.44 Tf1 0 0 1 6Tm0 g0 G1.06 1642.39Tm0 g0 G[e)-4(xpans)-5(ion)]TJETQ EMC /P <</MeMC /severe



***Acknowledgements***: *The authors wish to acknowledge the Cooperative Human Tissue Network (CHTN) for their supply of human tissue. Schematics were generated with biorender.io*
*For questions, please reach out to Jeremy Tchaicha (itchaicha@obsidiantx.com)*