



OBSIDIAN
THERAPEUTICS

Obsidian Therapeutics Engineered TIL

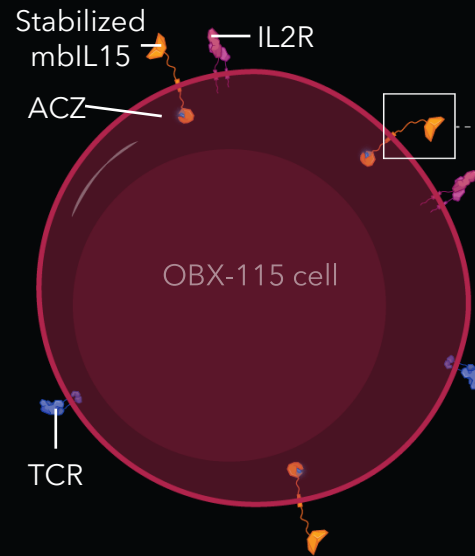
OBX-115

JULY 2024

mbIL15 Armoring Delivers a Superior Cell Therapy Product

OBX-115 is engineered with our proprietary mbIL15 gene construct with a flexible linker, which has unique signaling properties conferring the ability to drive both cis- and trans-cell activation

Benefits of IL15



Drives antigen-independent proliferation of memory CD8+ T-cells

Supports survival of CD8+ T cells without promoting terminal differentiation;
Drives antigen-independent proliferation of memory CD8+ T cells ^{1,2}

Sustains persistence and durable effector function

Provides efficient expansion of T cells without increasing cell exhaustion or compromising cytotoxicity ³

Drives cytokine production and cytotoxicity

Sufficient to cause human memory CD8+ T cells to become highly cytolytic (increase perforin, granzyme B, IFN γ) ⁴

mbIL15 trans-activation drives engagement of other immune cells (e.g., NK cells), potentially preventing tumor escape from MHC loss

Supports NK cell homeostasis and proliferation and supports the survival of activated NK cells ⁵;
Shown to increase cell expansion and persistence of NK cell therapies ⁶

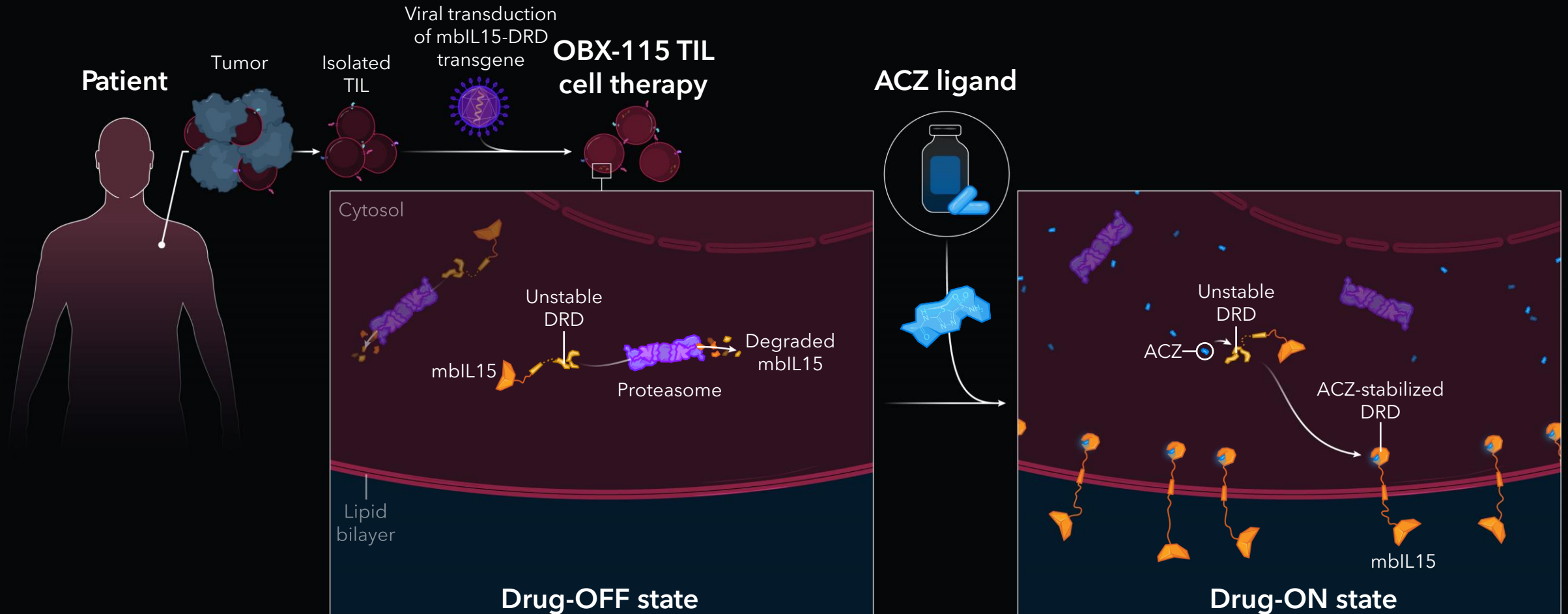
Does not support Treg development in the TME ⁷

Lack of Tregs decreases the risk of an immune-suppressive TME

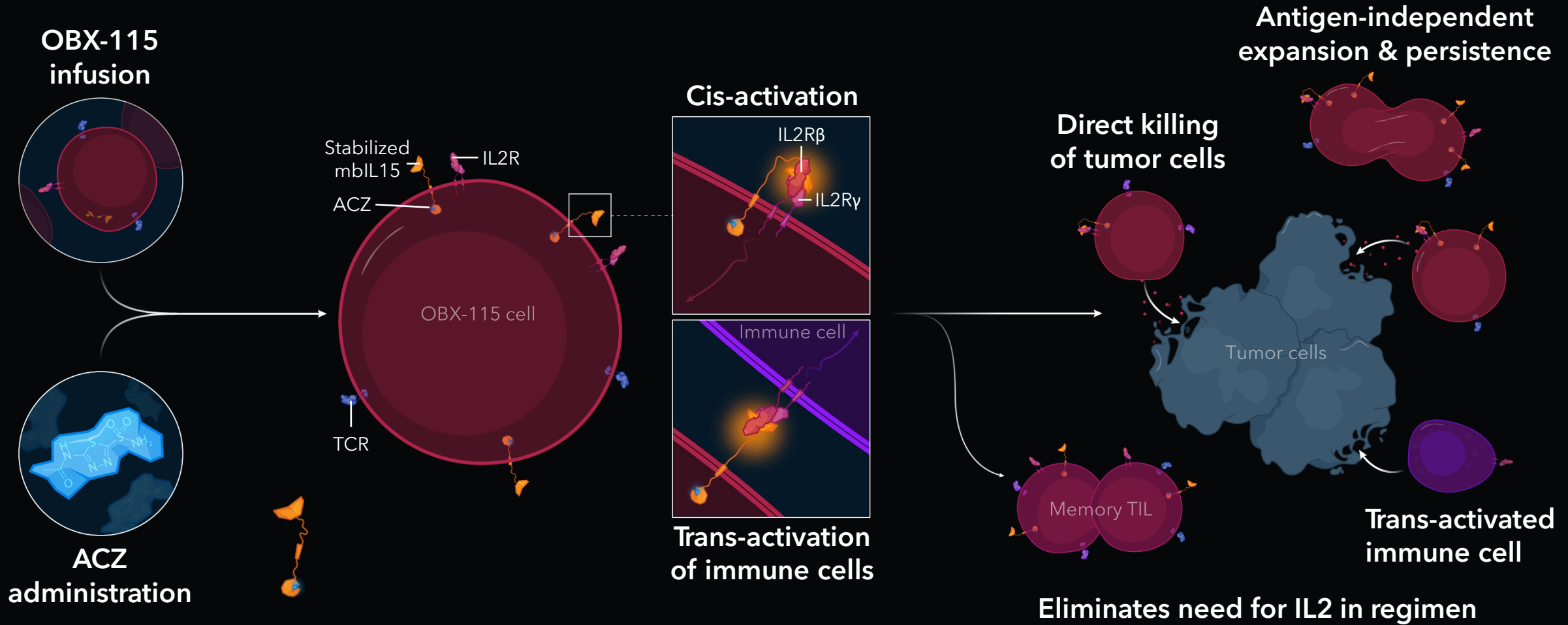
Potential for reduced-dose lymphodepletion

Reduced dependence on homeostatic IL15 increase after lymphodepletion to drive expansion ⁸

Leveraging Our **cytoDRiVE® Platform** to Regulate mbIL15 Activity Using the FDA-approved Small-molecule Drug ACZ



OBX-115: Addressing Limitations of Non-engineered TIL



Proprietary Manufacturing: mbIL15 Drives a CD8+ Enriched and Minimally Exhausted Product With Enhanced Memory Phenotype

