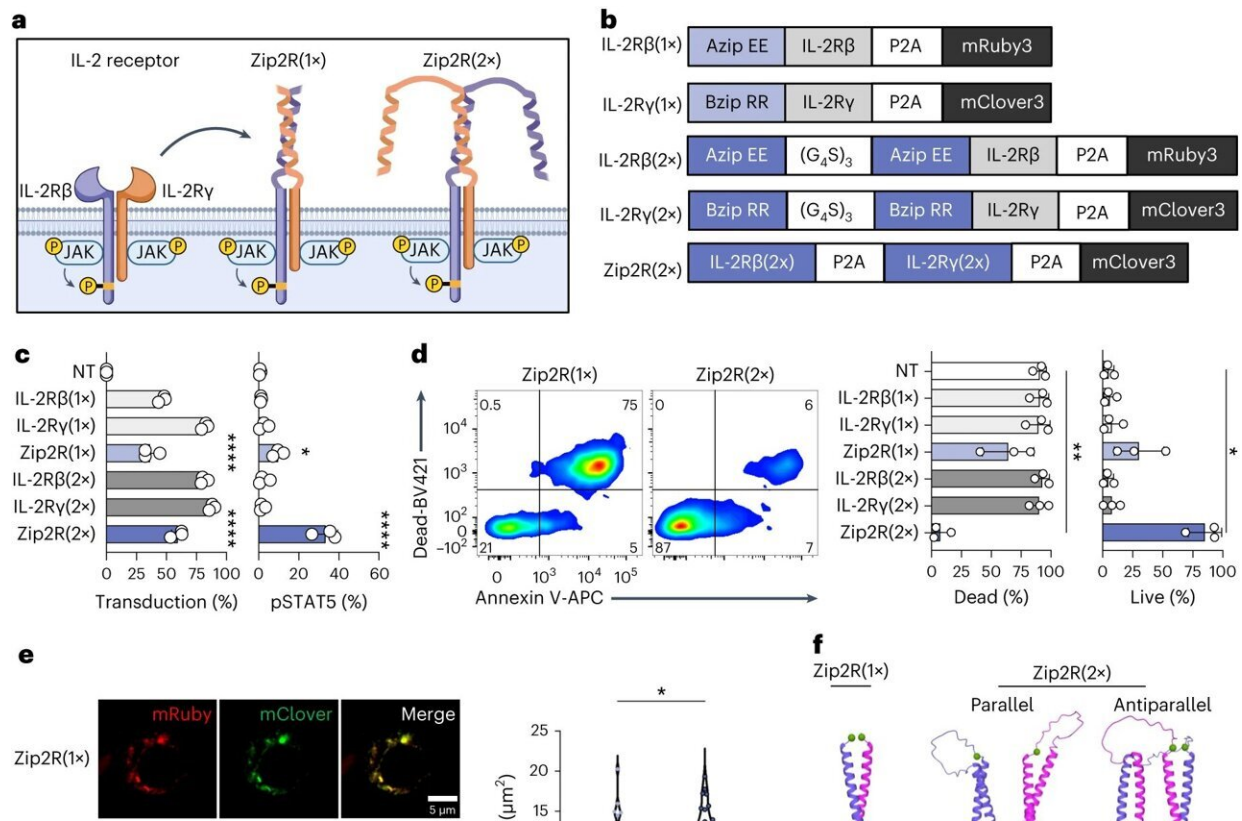


# Modular chimeric cytokine receptors improve CAR T-cell therapy for solid tumors

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Two leucine zipper motifs endow ZipRs with constitutive signal transduction. **a**, Schematic of IL-2 receptor-based Zip2Rs with phosphorylated (p) JAK and receptors. **b**, Zip2R(1x) and Zip2R(2x) constructs. **c**, Left, transduction efficiency of human T cells as measured by mRuby (IL-2Rβ(1x), IL-2Rβ(2x)), mClover (IL-2Rγ(1x), IL-2Rγ(2x), Zip2R(2x)) or mRuby and mClover (Zip2R(1x)) expression. Right, phosphorylated STAT5 expression in transduced human T cells ( $n = 3$  biological replicates, mean  $\pm$  s.d.; \*\*\*\* $P$

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