Inhibition of A2AR induces anti-tumor immunity alone and in combination with anti-PD-L1 in preclinical and clinical studies.


Corus Pharmaceuticals, Burlingame, CA 94010, USA. 2Adaptive Biotechnologies, Seattle, WA, 98102. *Authors contributed equally

PHASE 1/1B CLINICAL TRIAL DESIGN

CPI-444 INCREASES IMMUNE INFILTRATION INTO TUMORS

IMMUNE MODULATION BY CPI-444 IN PERIPHERAL BLOOD

CPI-444 INCREASES T EFFECTOR GENE SIGNATURE

TCR CLONALITY ASSOCIATES WITH TUMOR REGRESSION

CPI-444 MODULATES TCR REPERTOIRE IN PERIPHERY

CONCLUSIONS

1. Increased frequencies of PD-1+ activated T cells in peripheral blood
2. Increased CXCL10 expression in peripheral blood in patients with high TCR diversity additionally
3. Increased tumor CXCL10 utilization as well as induction of chemokine-induced genes in tumor tissue
4. Early clinical data suggests pre-existing T cell infiltration or activation is not required for tumor regression with either single agent or combination regimens

This is consistent with the hypothesis that inhibition of A2AR signaling stimulates T cell infiltration and activation in the tumor microenvironment in both infected and non-infected tumors.

CONCLUSIONS

IMMUNE MODULATION BY CPI-444 IN PERIPHERAL BLOOD

CPI-444 INCREASES T EFFECTOR GENE SIGNATURE

TCR CLONALITY ASSOCIATES WITH TUMOR REGRESSION

CPI-444 MODULATES TCR REPERTOIRE IN PERIPHERY

CONCLUSIONS

1. Increased frequencies of PD-1+ activated T cells in peripheral blood
2. Increased CXCL10 expression in peripheral blood in patients with high TCR diversity additionally
3. Increased tumor CXCL10 utilization as well as induction of chemokine-induced genes in tumor tissue
4. Early clinical data suggests pre-existing T cell infiltration or activation is not required for tumor regression with either single agent or combination regimens

This is consistent with the hypothesis that inhibition of A2AR signaling stimulates T cell infiltration and activation in the tumor microenvironment in both infected and non-infected tumors.