Preclinical and initial Phase I clinical characterization of CPI-006: an anti-CD73 monoclonal antibody with unique immunostimulatory activity

Corvus Pharmaceuticals, Burlingame, CA 94010, USA.

**INTRODUCTION**

ADENOSINE IS GENERATED BY CD73 AND CREATES AN IMMUNOSUPPRESSIVE TUMOR MICROENVIRONMENT

**CPI-006 BLOCKS ADENOSINE PRODUCTION AND RELIEVES ADENOSINE-MEDIATED IMMUNOSUPPRESSION**

**CPI-006 DIRECTLY ACTIVATES HUMAN B LYMPHOCYTES**

**CPI-006 INDUCES B CELL ACTIVATION INDEPENDENT OF ADENOSINE**

**CPI-006 INDUCES PHOSPHO-ERK SIGNALING IN B CELLS**

**CPI-006 TRANSIENTLY REDISTRIBUTES PERIPHERAL B CELLS**

**CONCLUSIONS**

- CPI-006 targets a novel epitope on CD73
  - Blocks production of adenosine by inhibiting the enzymatic active site
  - Activates B cells, leading to increased expression of CD69

- Phase I monotherapy clinical data indicates that CPI-006 is:
  - Well tolerated at doses evaluated so far: 1, 3, 6 mg/kg with no DLTs
  - Dose proportional PK and receptor occupancy observed
  - Affects B lymphocyte trafficking as shown by transient redistribution of B cells

- Dose escalation continues with monotherapy and combination with A2AR antagonist CPI-444