CUDC-907 inhibits PI3K & HDAC activities in mouse bone marrow

CUDC-907 inhibits TARC production in multiple myeloma cell lines

CUDC-907 decreases TARC levels in a Hodgkin’s lymphoma cell line

CUDC-907 decreases TARC levels in a DLBCL cell line

Primary CLL cells are sensitive to CUDC-907

Patient plasma TARC level changes in phase I clinical trial

CUDC-907 decreases TARC levels in a Hodgkin’s lymphoma cell line

Conclusion

- CUDC-907 decreases the activity of multiple pathways, such as PI3K/AKT, MEK/ERK, and JAK/STAT pathways by dual PI3K and HDAC inhibition.
- In this study, PI3K and HDAC inhibition by CUDC-907 has been demonstrated in vivo in mouse bone marrow.
- CUDC-907 inhibits STAT3-mediated TARC production in Hodgkin’s lymphoma, DLBCL, and multiple myeloma cell lines.
- CUDC-907 decreases CD40L production in stimulated human primary CD4+ T-cells.
- CUDC-907 is able to overcome stromal cell protection of primary CLL cells in vivo in a co-culture system, where treatment of CUDC-907 decreases cytokine and chemokine levels.
- The ongoing Phase II clinical trial testing CUDC-907 in lymphoma and multiple myeloma is expected to yield preliminary evidence of anti-cancer activity and potential impact on the tumor microenvironment.

These results suggest the potential utility of selected cytokines and chemokines as predictive markers of CUDC-907 activity.

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DUAL FUNCTION HDAC AND PI3K INHIBITOR CUDC-907 AFFECTS CANCER CELLS AND THE TUMOR MICROENVIRONMENT IN HEMATOLOGICAL MALIGNANCIES

Anna W. Mai*, Ruzanna Atayan*, Anas Younes*, Ian W. Flinn*, Yasuhiro Okif, Amanda Copeland†, Jesus G Berdeja†, Robert Laliberte†, Jaye Viner†, Maria-Elena S. Samson†, Ze Tian†, Steven Dellorccia†, Ling Yin†, Myyllsa Borek†, Brian Zifcak†, Guangxin Xu†, Jing Wang†

*Curis, Inc., Lexington, MA; †Department of Medicine, Memorial Sloan Kettering Cancer Center, New York, NY; †Sarah Cannon Research Institute, Nashville, TN; ‡Lymphoma and Myeloma Department, M.D. Anderson Cancer Center, Houston, TX. *These authors contributed equally.