Kronos Bio Reports Positive Results of Preclinical Study of KB-0742, an Investigational CDK9 Inhibitor, Demonstrating Potency, Selectivity and Anti-tumor Activity in Prostate Cancer Model

July 9, 2020

Findings Support IND Submission Targeted for Year End 2020

Data Presented at American Association for Cancer Research Virtual Annual Meeting II

San Mateo, Calif., and Cambridge, Mass., July 9, 2020 – Kronos Bio, Inc., dedicated to targeting oncogenic transcription factors and their associated transcriptional regulatory networks, today announced results of a preclinical study of KB-0742, a highly potent, orally available and selective cyclin-dependent kinase 9 (CDK9) inhibitor. Results showed that KB-0742 inhibited tumor growth in a prostate xenograft model, as well as other cancers addicted to high levels of oncogenic transcription. The findings were presented in a poster session at the American Association for Cancer Research (AACR) Virtual Annual Meeting II in June 2020.

“Current therapies that block androgen signaling are effective in prostate cancer, but most ultimately develop resistance. These preclinical study results provide strong evidence that KB-0742 inhibits tumor growth in vivo,” said Norbert Bischofberger, Ph.D., President and Chief Executive Officer of Kronos. “Based in part on these data, we plan to advance KB-0742 into clinical development for the treatment of transcriptionally-addicted cancers. We anticipate submitting an IND in the fourth quarter of this year and initiating a Phase 1 dose-escalation study in early 2021.”

In this study, which was conducted in collaboration with the Koehler Lab at the MIT Center for Precision Cancer Medicine and Koch Institute For Integrative Cancer Research at MIT, researchers used the small molecule microarray (SMM) discovery platform to identify novel modulators of the androgen receptor capable of overcoming therapy resistance in prostate cancer cells. The SMM screen identified KI-ARv-03, a small molecule that blocks androgen receptor dependent gene expression and is a highly selective inhibitor of the androgen receptor cofactor CDK9. KB-0742 is a more potent and drug-like small molecule CDK9 inhibitor designed and optimized at Kronos Bio.

KB-0742 showed selectivity for CDK9 over other CDK family members, downregulated AR-dependent oncogenic transcription, and reduced tumor cell growth and promoted apoptosis in in vitro. Additionally, oral administration of KB-0742 (administered as a 3-day on/4-day off regimen) to mice that had been engrafted with castration resistant prostate cancer cells significantly inhibited tumor growth with modest effects on body weight. In a subsequent mouse xenograft study using a MYC-dependent acute myeloid leukemia model, KB-0742 administration again resulted in significant tumor growth inhibition with dose-dependent effects on pharmacodynamic markers of CDK9 inhibition in tumor.

About Kronos Bio, Inc.

Kronos Bio, Inc. is a clinical-stage biopharmaceutical company dedicated to the discovery and development of novel cancer therapeutics designed to transform patient outcomes by targeting dysregulated transcription.

For more information, please visit www.kronosbio.com or follow the company on LinkedIn.

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