Syros Pharmaceuticals to Present Preclinical Data on SY-1425 and CDK7 Inhibitor Program in Blood Cancers at Upcoming AACR Annual Meeting

Company’s Lead Drug Candidates Demonstrate Therapeutic Potential in Acute Myeloid Leukemia, Myelodyplastic Syndromes and Other Acute Leukemias

CAMBRIDGE, Mass.--(BUSINESS WIRE)--Syros Pharmaceuticals today announced that it will present new preclinical data on its lead program SY-1425 in acute myeloid leukemia (AML) and myelodysplastic syndromes (MDS), as well as on its first-in-class selective cyclin-dependent kinase 7 (CDK7) inhibitor program in acute leukemias. These data will be presented at the American Association for Cancer Research (AACR) Annual Meeting taking place April 16-20 in New Orleans.

**SY-1425 in Genomically Defined Subset of AML and MDS Patients**

Using its gene control platform, Syros identified a subset of AML and MDS patients whose tumors have a super-enhancer associated with the RARA gene that drives the increased expression of the retinoic acid receptor alpha (RARα) transcription factor and locks the cell in an immature, proliferative state. Syros then identified a biomarker for the RARA-associated super-enhancer. The poster presentation at AACR details preclinical *in vitro* and *in vivo* data showing that the RARA biomarker is predictive of sensitivity to treatment with SY-1425 (tamibarotene), an oral, potent and selective agonist of RARα, in models of AML. In patient-derived xenograft models of AML, SY-1425 reduced tumor growth and prolonged survival in mice with tumors with the RARA biomarker but not in mice whose tumors did not have the biomarker. Syros expects to advance SY-1425 into a Phase 2 trial this year in subsets of AML and MDS patients whose tumors are positive for the RARA biomarker.

**CDK7 Inhibition as a Novel Treatment Strategy for Acute Leukemias**

Certain cancers, including AML and other acute leukemias, are dependent on high and constant expression of transcription factors for their growth and survival, and have been shown to be particularly sensitive to selective inhibition of the transcriptional kinase CDK7. The poster presentation at AACR details preclinical *in vitro* and *in vivo* data demonstrating that the Company’s selective and potent CDK7 inhibitors induce rapid and robust apoptosis in AML cells but not in non-cancer cells. The data also show that the CDK7 inhibitors produce a survival benefit in patient-derived xenograft models of AML. Syros expects to advance its CDK7 inhibitor program into a Phase 1/2 trial in the first half of 2017 in patients with acute leukemias.

**About Syros Pharmaceuticals**

Syros Pharmaceuticals is a biopharmaceutical company applying a pioneering approach to discover and develop medicines that control the expression of genes with the aim of treating cancer and other serious diseases. Syros has built a proprietary gene control platform that provides the Company with a unique lens to identify crucial genes that...
become dysregulated in diseased cells. Syros is leveraging its platform to develop a pipeline of gene control medicines that it believes will provide a profound and durable benefit for patients. The Company’s scientific founders are world-class leaders in gene control research and translation. Launched by Flagship Ventures and ARCH Venture Partners, Syros Pharmaceuticals is located in Cambridge, Mass.


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