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, Myelodysplastic 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.

Date & Time: Monday, April 18, from 8 a.m.-12 p.m. CDT
Presentation Title: Discovery of new AML and MDS patient subsets sensitive to the highly selective RARα agonist SY-1425 (tamibarotene) through super-enhancer analysis
Session Title: Differentiation Therapy
Session Category: Experimental and Molecular Therapeutics
Presenter: Michael R. McKeown, Ph.D., Scientist, Syros Pharmaceuticals
Abstract Number: 1187
Location: Convention Center, Halls G-J, Poster Section 14

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.

Date & Time: Wednesday, April 20, from 8 a.m.-12 p.m. CDT
Presentation Title: Selective CDK7 inhibitors suppress super-enhancer genes, induce massive apoptosis in acute myeloid leukemia and demonstrate durable in vivo efficacy
Session Title: Targeted Therapy
Session Category: Experimental and Molecular Therapeutics
Presenter: Yoon J. Choi, Ph.D., Senior Scientist, Syros Pharmaceuticals
Abstract Number: 4820
Location: Convention Center, Halls G-J, Poster Section 20

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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Source: Syros Pharmaceuticals