November 1, 2018

Syros to Present Initial Clinical Data from Combination Cohorts in Its Ongoing Phase 2 Trial of SY-1425 at ASH Annual Meeting

CAMBRIDGE, Mass.--(BUSINESS WIRE)-- Syros Pharmaceuticals (NASDAQ: SYRS), a leader in the development of medicines that control the expression of genes, today announced that the Company will present initial clinical data from both combination cohorts in its ongoing Phase 2 trial of SY-1425, its first-in-class selective retinoic acid receptor alpha (RARα) agonist, in genomically defined subsets of patients with acute myeloid leukemia (AML) and higher-risk myelodysplastic syndrome (MDS) at the 60th American Society of Hematology (ASH) Annual Meeting and Exposition taking place December 1-4 in San Diego.

The data will include initial assessments of safety and efficacy of SY-1425 in combination with azacitidine in *RARA* and *IRF8* biomarker-positive patients with newly diagnosed AML who are not suitable candidates for standard chemotherapy, and in combination with daratumumab in biomarker-positive patients with relapsed or refractory AML and higher-risk MDS. Additionally, for the daratumumab cohort, the presentation will include data on the level of CD38 induction observed in patients.

The abstract for the presentation is now available online on the ASH conference website at http://www.hematology.org/Annual-Meeting.

Details on the presentation are as follows:

Presentation Title: Early Results from a Biomarker-Directed Phase 2 Trial of SY-1425 in Combination with Azacitidine or Daratumumab in Non-APL Acute Myeloid Leukemia (AML) and Myelodysplastic Syndrome (MDS)
Date & Time: Sunday, December 2, 6:00-8:00 p.m. PT (9:00-11:00 p.m. ET)
Session Title: Poster Session II
Session Category: 616. Acute Myeloid Leukemia: Novel Therapy Excluding Transplantation
Presenter: Rachel J. Cook, M.D., Oregon Health Science University
Abstract Number: 2735
Location: Hall GH, San Diego Convention Center

About Syros Pharmaceuticals
Syros is pioneering the understanding of the non-coding regulatory region of the genome to advance a new wave of medicines that control the expression of genes. Syros has built a proprietary platform that is designed to systematically and efficiently analyze this unexploited region of DNA to identify and drug novel targets linked to genomically defined patient populations. Because gene expression is fundamental to the function of all cells, Syros' gene control platform has broad potential to create medicines that achieve profound and durable benefit across a range of diseases. Syros is currently focused on cancer and monogenic diseases and is advancing a growing pipeline of gene control medicines. Syros' lead drug

candidates are SY-1425, a selective RARα agonist in a Phase 2 clinical trial for genomically defined subsets of patients with acute myeloid leukemia and myelodysplastic syndrome, and SY-1365, a selective CDK7 inhibitor in a Phase 1 clinical trial for patients with ovarian and breast cancers. Syros is also developing a deep preclinical and discovery pipeline, including SY-5609, an oral CDK7 inhibitor, as well as programs in immuno-oncology and sickle cell disease. Led by a team with deep experience in drug discovery, development and commercialization, Syros is located in Cambridge, Mass.

Cautionary Note Regarding Forward-Looking Statements
This press release contains forward-looking statements within the meaning of The Private Securities Litigation Reform Act of 1995, including without limitation statements regarding the presentation of data at the American Society of Hematology Annual Meeting; the potential benefits of SY-1425 in combination with azacitidine or daratumumab in AML and MDS patients identified using Syros' proprietary biomarkers; and the benefits of Syros' gene control platform. The words ‘‘anticipate,’’ ‘‘believe,’’ ‘‘continue,’’ ‘‘could,’’ ‘‘estimate,’’ ‘‘expect,’’ “hope,” ‘‘intend,’’ ‘‘may,’’ ‘‘plan,’’ ‘‘potential,’’ ‘‘predict,’’ ‘‘project,’’ ‘‘target,’’ ‘‘should,’’ ‘‘would,’’ and similar expressions are intended to identify forward-looking statements, although not all forward-looking statements contain these identifying words. Actual results or events could differ materially from the plans, intentions and expectations disclosed in these forward-looking statements as a result of various important factors, including Syros' ability to: advance the development of its programs, including SY-1425 and SY-1365, under the timelines it projects in current and future clinical trials; demonstrate in any current and future clinical trials the requisite safety, efficacy and combinability of its drug candidates; successfully progress SY-5609 through IND-enabling preclinical and toxicology studies; replicate scientific and non-clinical data in clinical trials; successfully develop a companion diagnostic test to identify patients with the RARA and IRF8 biomarkers; obtain and maintain patent protection for its drug candidates and the freedom to operate under third party intellectual property; obtain and maintain necessary regulatory approvals; identify, enter into and maintain collaboration agreements with third parties, including its ability to perform under the collaboration agreement with Incyte; manage competition; manage expenses; raise the substantial additional capital needed to achieve its business objectives; attract and retain qualified personnel; and successfully execute on its business strategies; risks described under the caption “Risk Factors” in Syros' Annual Report on Form 10-K for the year ended December 31, 2017, as updated in its Quarterly Reports on Form 10-Q for the quarters ended March 31, June 30 and September 30,, 2018, each of which is on file with the Securities and Exchange Commission; and risks described in other filings that Syros makes with the Securities and Exchange Commission in the future. Any forward-looking statements contained in this press release speak only as of the date hereof, and Syros expressly disclaims any obligation to update any forward-looking statements, whether because of new information, future events or otherwise.

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