Syndax Pharmaceuticals Presents Updated Phase 2 Data from ENCORE 601 Trial of Entinostat in Combination with KEYTRUDA® (pembrolizumab) at the American Association for Cancer Research 2019 Annual Meeting

– 19% objective response rate and 36% clinical benefit rate, with 13-month median duration of response in melanoma patients whose disease progressed on or after anti-PD-1 therapy –

- Gene expression analyses provide mechanistic insight for enhanced clinical benefit observed in biomarker-defined subpopulation of NSCLC patients whose disease progressed on or after anti-PD-1 therapy –

WALTHAM, Mass., April 1, 2019 (PRNEWSWIRE) -- Syndax Pharmaceuticals, Inc. ("Syndax," the "Company" or "we") (Nasdaq: SNDX), a clinical stage biopharmaceutical company developing an innovative pipeline of cancer therapies, today announced the presentation of updated findings from the melanoma and non-small cell lung cancer (NSCLC) cohorts of ENCORE 601, the Company's Phase 1b/2 trial evaluating the efficacy and safety of entinostat, its once-weekly, oral, small molecule, class I HDAC inhibitor, in combination with KEYTRUDA® (pembrolizumab), Merck's anti-PD-1 (programmed death receptor-1) therapy. The data were presented during oral presentations at the American Association of Cancer Research (AACR) Annual Meeting held March 29 - April 3, 2019 in Atlanta, Georgia. A copy of each presentation is available via the Syndax website at http://www.syndax.com/science/publications/.

"We are very pleased to report that updated findings announced today continue to support our prior observation that the addition of entinostat to pembrolizumab may overcome resistance in a subset of melanoma and NSCLC patients who are refractory to anti-PD-1 therapy," said Briggs W. Morrison, M.D., Chief Executive Officer of Syndax. "Both indications represent areas of high unmet need and we believe that available data warrant consideration to move the entinostat-pembrolizumab combination into one or more registration trials. As previously communicated, we look forward to determining next steps for the combination program following availability of overall survival results from E2112, our Phase 3 registration trial of entinostat plus exemestane in HR+, HER2- breast cancer, the next interim readout of which is expected in the second quarter of this year."

Melanoma Update

During an oral presentation today titled, "Efficacy and safety of entinostat (ENT) and pembrolizumab (PEMBRO) in patients with melanoma previously treated with anti-PD1 therapy", Ryan J. Sullivan M.D., Assistant Professor, Hematology/Oncology, Massachusetts General Hospital, presented results from the ENCORE 601 melanoma cohort that enrolled patients whose disease had progressed on or after anti-PD-1 therapy. Of 53 patients treated, a confirmed objective response was observed in 19% of patients per irRECIST criteria (1 complete response (CR), 9 partial responses (PR); 95% CI: 9-32%), with a clinical benefit rate of 36% (CR, PR, stable disease (SD) > 6 months; 95% CI: 23%-50%). Median duration of response is 13 months (range 3-20 months). Four responders, all of whom have been on study therapy for over a year, currently remain on treatment. Efficacy results in patients who also received prior YERVOY® (ipilimumab) therapy

(n=37, 70%) were consistent with the overall population. The entinostat-pembrolizumab combination was well tolerated with a manageable toxicity profile.

Correlative analyses consistent with entinostat's hypothesized mechanism of action indicate a trend in decreased circulating myeloid derived suppressor cells (MDSCs) and increased CD8+ T cells in responding patients. Gene expression changes in post-treatment tumor biopsy samples in responders versus non-responders support up-regulated immune response signatures and down-regulation of immune resistance pathways.

NSCLC Update

During an oral presentation on Sunday titled, "Identification of gene signatures associated with response in a Phase 2 trial of entinostat (ENT) plus pembrolizumab (PEMBRO) in non-small cell lung cancer (NSCLC) patients whose disease has progressed on or after anti-PD-(L)1 therapy", Suresh S. Ramalingam, M.D., Assistant Dean for Cancer Research and Deputy Director of the Winship Cancer Institute at Emory University, presented updated clinical results and findings from gene expression analyses of pre-treatment tumor samples conducted in a subset of patients. Updated results continue to support the association of high baseline classical monocytes with improved clinical outcome to entinostat plus pembrolizumab in anti-PD-1 pre-treated NSCLC patients and with extended follow up, the median duration of response is 8 months (range 3-18 months).

Results from gene set analyses revealed a significantly enriched Myc regulated gene signature in responders versus non-responders. Multiple studies have implicated elevated Myc signaling as a resistance factor to anti-PD-(L)1 therapy[1-3], and separately have shown that entinostat can downregulate Myc activity[4,5]. These findings provide further insight into the potential mechanistic basis for response to the entinostat-pembrolizumab combination treatment in PD-(L)1 pretreated patients.

About Entinostat

Entinostat, Syndax's selective, oral, once-weekly inhibitor of class I histone deacetylases (HDACs), has been shown to resensitize Hormone Receptor positive (HR+) advanced breast cancer to endocrine therapy, and is currently being evaluated in a pivotal Phase 3 clinical trial in combination with exemestane for advanced HR+ breast cancer, an indication for which it has been granted Breakthrough Therapy Designation by the U.S. Food and Drug Administration. Entinostat has also been shown to block the function of immune suppressive cells in the tumor microenvironment, and in a Phase 2 clinical trial in combination with KEYTRUDA® (pembrolizumab) from Merck & Co., Inc, demonstrated evidence of clinical benefit in patients with melanoma and non-small cell lung cancer.

About Syndax Pharmaceuticals, Inc.

Syndax Pharmaceuticals is a clinical stage biopharmaceutical company developing an innovative pipeline of cancer therapies. The Company is developing its lead product candidate, entinostat, a once-weekly, oral, small molecule, class I HDAC inhibitor, in combination with exemestane and has evaluated it in combination with several approved PD-1/PD-(L)1 antagonists. The Company's pipeline also includes SNDX-6352, a monoclonal antibody that blocks the colony stimulating factor

1 (CSF-1) receptor, as well as a portfolio of potent and selective inhibitors targeting the binding interaction of Menin with MLL-r, including its lead candidate SNDX-5613. For more information, please visit www.syndax.com or follow the Company on Twitter and LinkedIn.

Syndax's Cautionary Note on Forward-Looking Statements

This press release contains forward-looking statements within the meaning of the Private Securities Litigation Reform Act of 1995. Words such as "may," "will," "expect," "plan," "anticipate," "estimate," "intend," "believe" and similar expressions (as well as other words or expressions referencing future events, conditions or circumstances) are intended to identify forward-looking statements. These forward-looking statements are based on Syndax's expectations and assumptions as of the date of this press release. Each of these forward-looking statements involves risks and uncertainties. Actual results may differ materially from these forward-looking statements. Forward-looking statements contained in this press release include, but are not limited to, statements about the progress, timing, clinical development and scope of clinical trials and the reporting of clinical data for Syndax's product candidates, the potential use of our product candidates to treat various cancer indications. Many factors may cause differences between current expectations and actual results including unexpected safety or efficacy data observed during preclinical or clinical trials, clinical trial site activation or enrollment rates that are lower than expected, changes in expected or existing competition, changes in the regulatory environment, failure of Syndax's collaborators to support or advance collaborations or product candidates and unexpected litigation or other disputes. Other factors that may cause Syndax's actual results to differ from those expressed or implied in the forward-looking statements in this press release are discussed in Syndax's filings with the U.S. Securities and Exchange Commission, including the "Risk Factors" sections contained therein. Except as required by law, Syndax assumes no obligation to update any forward-looking statements contained herein to reflect any change in expectations, even as new information becomes available.

References

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