Determined to realize a future in which people with cancer live longer and better than ever before



4Q18 EARNINGS PRESENTATION | MARCH 2019

Forward-looking statements disclosure

This presentation contains forward-looking statements within the meaning of the Private Securities Litigation Reform Act of 1995. Words such as "may," "will," "expect," "plan," "anticipate" and similar expressions (as well as other words or expressions referencing future events or circumstances) are intended to identify forward-looking statements. All statements other than statements of historical facts contained in this presentation, including statements regarding future operations, financial results and the financial condition of Syndax Pharmaceuticals, Inc. ("Syndax" or the "Company"), including financial position, strategy and plans, the progress, timing, clinical development and scope of clinical trials and the reporting of clinical data for Syndax's product candidates, and Syndax's expectations for liquidity and future operations, are forward-looking statements. Many factors may cause differences between current expectations and actual results, including unexpected safety or efficacy data observed during preclinical or clinical studies, clinical site activation rates or clinical trial enrollment rates that are lower than expected, changes in expected or existing competition, failure of our collaborators to support or advance collaborations or product candidates and unexpected litigation or other disputes. Moreover, Syndax operates in a very competitive and rapidly changing environment. Other factors that may cause our actual results to differ from current expectations are discussed in Syndax's filings with the U.S. Securities and Exchange Commission, including the "Risk Factors" sections contained therein. New risks emerge from time to time. It is not possible for Syndax's management to predict all risks, nor can Syndax assess the impact of all factors on its business or the extent to which any factor, or combination of factors, may cause actual results to differ materially from those contained in any forward-looking statement. In light of these risks, uncertainties and assumptions, the forward-looking events and circumstances discussed in this presentation may not occur and actual results could differ materially and adversely from those anticipated or implied. Except as required by law, neither Syndax nor any other person assumes responsibility for the accuracy and completeness of the forward-looking statements. Syndax undertakes no obligation to update publicly any forward-looking statements for any reason after the date of this presentation to conform these statements to actual results or to changes in Syndax's expectations.

2019: Portfolio prioritization to drive value





Entinostat - exemestane

Oral, Class I HDAC in HR+ mBC

Potential positive OS data 2019

Potential NDA filing in 2019/20

Efficacy post-CDK4,6 Tx

Blockbuster potential

Oral, Menin inhibitor

Blocks MLL-fusion protein activity

SNDX-5613

- IND filing 2Q, clinical data '19/'20
- Benefit expected in high need AML, ped ALL populations
- Blockbuster potential

to market opportunity

Entinostat - KEYTRUDA

Oral, Class I HDAC, solid tumors

- Strong data in NSCLC and MEL
- 2 oral presentations at AACR
- Blockbuster potential

Targeted therapy provides fast

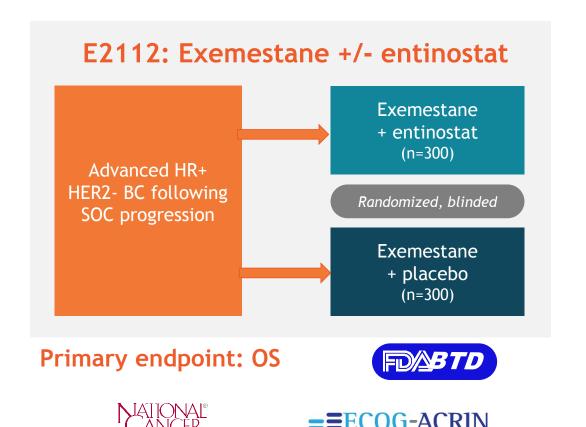
Registration trial deferred until positive OS in E2112

Potential first combo to demonstrate survival benefit

NSCLC - non-small cell lung cancer; MEL - melanoma; AML - acute myeloid leukemia; ALL - acute lymphoblastic leukemia

Phase 3 E2112: Focused on overall survival

Reshaping the future of patient care



Syndax 👺

E2112 Trial Milestones

- ✓ 4Q18: Accrual completed (n=608),
 PFS and interim OS analyses shared
- 2Q19: Next interim OS analysis
- 4Q19: Additional interim OS analysis
- 2Q20: Final OS analysis (if needed)

Expect to file NDA ~6 months after positive OS data

A positive OS result allows filing for full regulatory approval

Blockbuster potential as 2nd/3rd line agent

Leading treatment options - HR+, HER2- advanced breast cancer

1st line hormone Tx

Anastrozole or letrazole +/CDK4,6 inhibitor

2nd/3rd/4th line hormone Tx

Anastrazole, Faslodex +/CDK4,6 inhibitor or
Afinitor-exemestane

34,000 pts

Entinostat-exemestane target population

Chemo-Tx

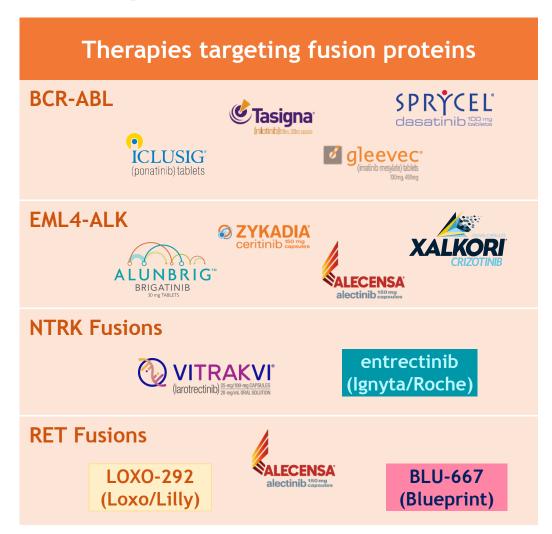
Capecitabine, gemcitabine, eribulin

Source: DataMonitor 2016 Breast cancer: HR+/HER2- Disease Coverage Report

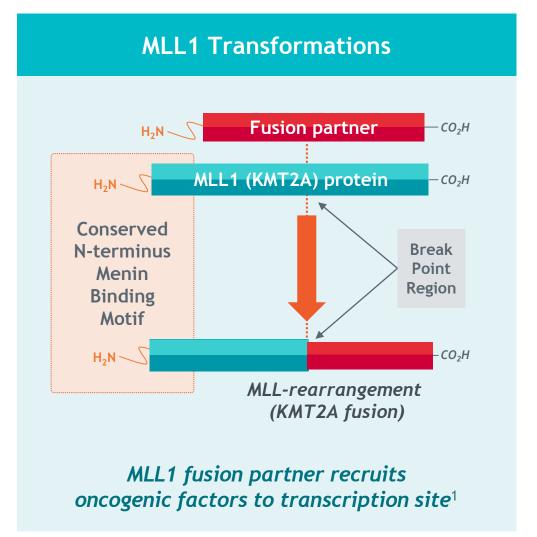
SNDX-5613 targets novel fusion protein: Fusion proteins proven to be good candidates for targeted therapies

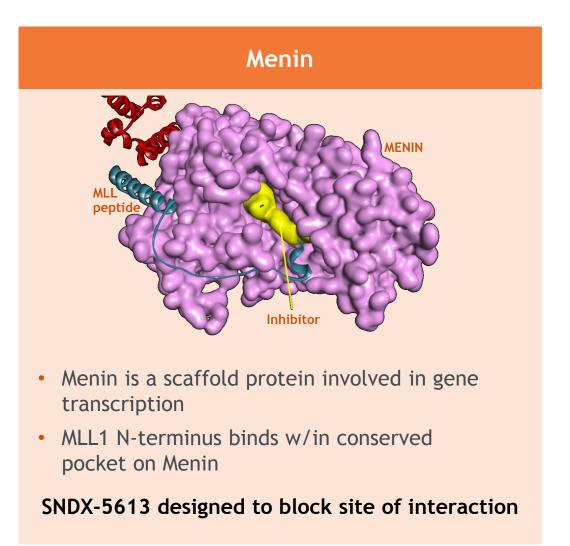
Advantages

- Strong target validation
- Precise patient selection
- Big effect in small studies
- Molecular markers of disease status
- Rapid regulatory path



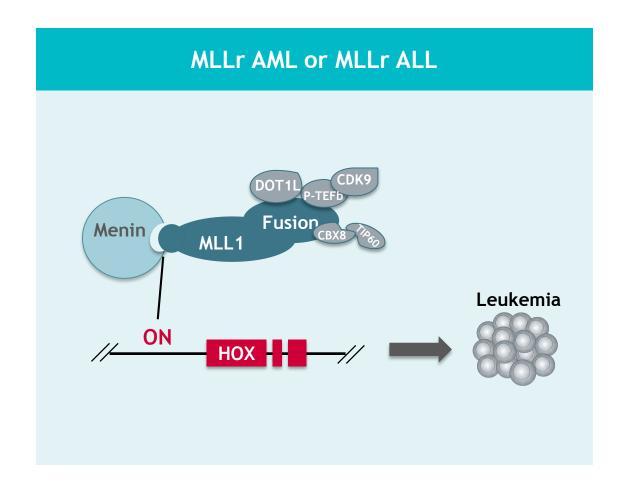
In MLLr, leukemic transformation is highly dependent on the Menin-MLL interaction

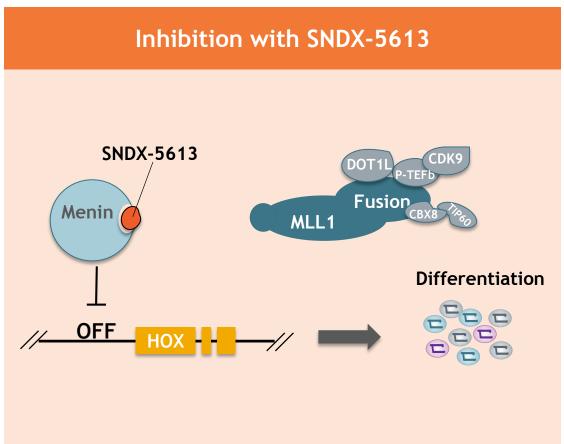




Source: Yokoyama A, Cell. 2005 Oct 21;123(2):207-18; Caslini C, Cancer Res. 2007 Aug 1;67(15):7275-83.

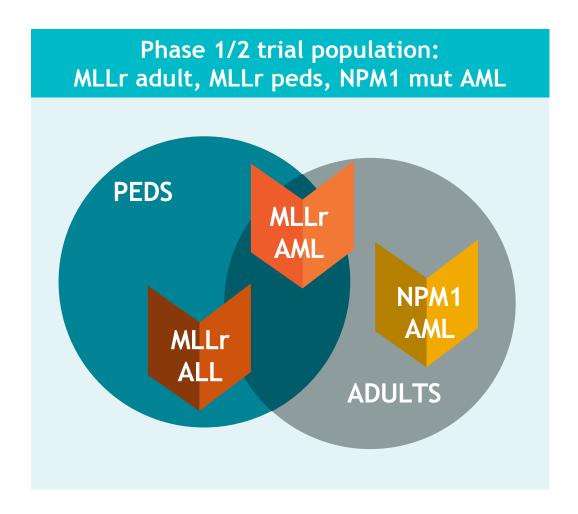
Binding of Menin to MLL1 leads to upregulation of HOX gene transcription and leukemia in MLLr AML and MLLr ALL





Adopted from: Uckelmann HJ, et al. Presented at ASH Annual Meeting, 2018.

SNDX-5613: potential best-in-class, targeted, oral agent with single agent activity and fast to market potential



Defined fast to market pathway

- IND filing est. 2Q19; Phase 1 to follow
 - Early efficacy possible as early as year-end 2019
- MLLr and NPM1 identified today with standard screening protocols
- No approved therapies targeting MLLr or NPM1 acute leukemias
 - \$\$B commercial opportunity

ENCORE program testing combos across immune phenotypes

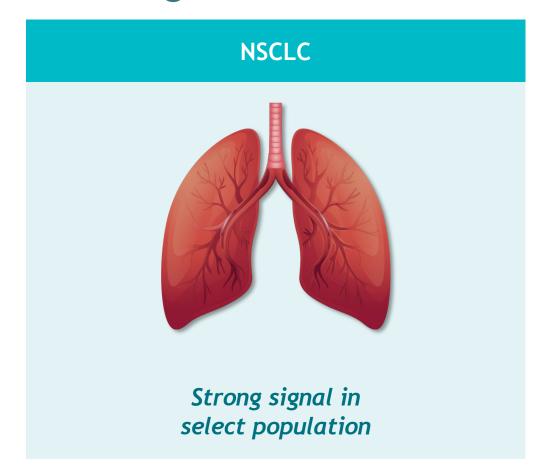
Responds to PD-(L)1

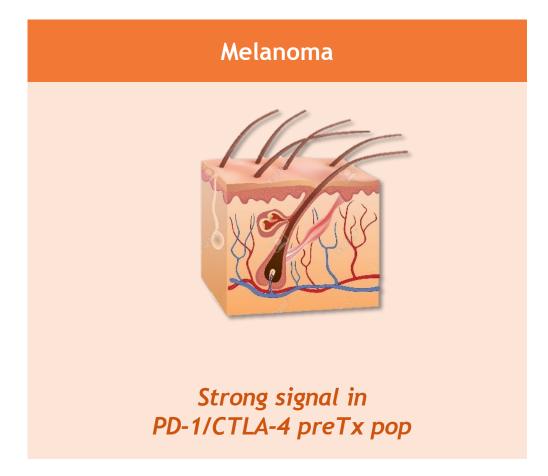
Convert to "inflamed" with combinations

Inflamed Excluded Non-Inflamed Abundance of TILs Angiogenesis Highly proliferating tumor cells • CD8+ Tcells, INFγ MDSCs Low Tcell infiltrate • PD-(L)1 expression Reactive Stroma **ENCORE 601 ENCORE 602 ENCORE 603 ENCORE 601 NSCLC** and Melanoma CRC **TNBC** Ovarian **MERCK** MERCK Genentech

Source: Hedge, et al. Clin Cancer Res; 22.8 (2016): 1865-1874.

ENCORE clinical proof of concept program complete; positive signal observed in NSCLC and melanoma





Oral presentations on NSCLC biomarker and melanoma results at AACR

Update on SNDX-6352: pursuing novel indication

High affinity, $IgG4 (K_D = 4-8 pM)$



Multiple ascending dose (MAD, solid tumors) ongoing



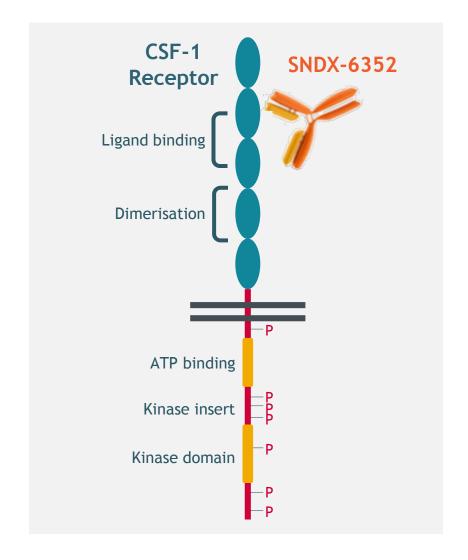
Combination study with IMFINZI (durvalumab, AZ) commenced

RP2D expected in 2Q19



Chronic graft versus host disease (cGVHD) study initiated

RP2D expected in 2H19



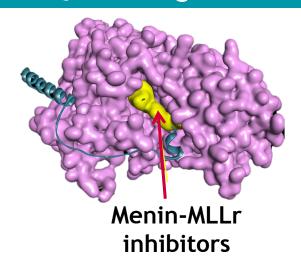
CSF-1R - colony stimulating factor -1 receptor; RP2D recommended Phase 2 dose. Source: Ordentlich, P. et al SITC 2016.

Proven ability to build the pipeline

3Q16: UCB



4Q17: Allergan/Vitae



- Established relationships enhance identification and access to quality assets
- Clinical development leadership enables competitive advantage
- Business development continues to be a core strength of our business

2018 financial highlights and 1Q, full-year 2019 guidance

Ticker	SNDX (NASDAQ)				
As of December 31, 2018					
Cash and short-term investments	\$80.9 million				
Shares Outstanding*	26.8 million				
2019 1Q and full year Operating Expense Guidance					
	1Q 2019	2019			
Research and Development	\$11 - 13 M	\$46 - 50 M			
Total Operating Expenses^	\$15 - 17 M	\$60 - 64 M			

^{*} Includes 24.8 million common shares and pre-funded warrants to purchase 2.0 million common shares

 $[\]hat{}$ Includes \$1.5 and \$6 million non-cash stock compensation expense for 1Q 2019 and for 2019, respectively

Upcoming milestones

ENTINOSTAT (Class 1 specific HDAC inhibitor)	1Q19	2Q19	3Q19	4Q19	1H20
E2112 - Interim OS analysis					
ENCORE 601 - Present final results for melanoma cohort					
ENCORE 601 - Present biomarker analysis for NSCLC cohort					

SNDX-5613 (Menin inhibitor)	1Q19	2Q19	3Q19	4Q19	1H20
Investigational New Drug (IND) application					
Potential for early efficacy in relapsed refractory AML					

SNDX-6352 (anti-CSF-1R mAB)	1Q19	2Q19	3Q19	4Q19	1H20
Identify recommended Phase 2 dose and schedule					
Preliminary efficacy in chronic GVHD					

