



Verastem Announces Positive Top-line Data from the Pivotal Phase 3 DUO™ Study in Relapsed or Refractory Chronic Lymphocytic Leukemia and Small Lymphocytic Lymphoma

September 6, 2017

The Primary Outcome of Progression Free Survival (PFS) via Independent Review Committee (IRC) in the Intent to Treat (ITT) Population Significantly Favored Duvelisib Monotherapy Over Ofatumumab (Median PFS of 13.3 versus 9.9 Months, Respectively; Hazard Ratio (HR) of 0.52, $p < 0.0001$)

Similar Efficacy Benefit for Duvelisib Monotherapy Over Ofatumumab for Patients with 17p Deletion (Median PFS of 12.7 versus 9.0 Months, Respectively; HR of 0.41, $p = 0.0011$)

Oral Duvelisib Continues to Demonstrate a Consistent and Manageable Safety Profile

Conference Call Scheduled for Today at 8:00 AM ET

BOSTON--(BUSINESS WIRE)--Sep. 6, 2017-- Verastem, Inc. (NASDAQ:VSTM), focused on discovering and developing drugs to improve the survival and quality of life of cancer patients, today reported positive top-line results from the Phase 3 DUO study evaluating the efficacy and safety of duvelisib, a first in class oral dual inhibitor of phosphoinositide 3-kinase (PI3K)-delta and PI3K-gamma, in patients with relapsed or refractory chronic lymphocytic leukemia (CLL)/small lymphocytic lymphoma (SLL). Regarding the DUO study's primary endpoint of progression free survival (PFS) as determined by Independent Review Committee (IRC), oral duvelisib monotherapy showed superiority over ofatumumab, an approved standard of care treatment for patients with CLL/SLL, achieving a statistically significant improvement in median PFS of 13.3 months, compared to 9.9 months for ofatumumab with a hazard ratio (HR) of 0.52 ($p < 0.0001$), representing a 48% reduction in the risk of progression or death. Median PFS in the subset of patients with 17p deletion randomized to duvelisib was also significantly higher (12.7 months compared to 9.0 months for ofatumumab; HR of 0.41, $p = 0.0011$).

"Although the treatment of CLL/SLL has advanced in recent years, there remains a substantial unmet need with many patients progressing or relapsing following the available therapies," commented Ian Flinn, MD, PhD, Director of the Blood Cancer Research Program at Sarah Cannon Research Institute and the Lead Investigator on the DUO study. "These positive results from the randomized DUO study demonstrate that duvelisib prolongs progression-free survival (PFS) with a manageable safety profile in patients with relapsed or refractory CLL/SLL, including in high risk patients with the 17p deletion. For our patients with CLL/SLL, and for the physicians who treat them, a convenient, oral monotherapy that is taken at home would be a valuable addition to the treatment landscape."

Verastem plans to share these clinical data with the U.S. Food and Drug Administration (FDA) with the goal of filing a New Drug Application (NDA) with the FDA during the first half of 2018. The duvelisib NDA submission will be supported by favorable results from both the DUO study in CLL/SLL and the DYNAMO™ study in indolent non-Hodgkin's lymphoma (iNHL), which also achieved its primary endpoint with an ORR of 46% ($p < 0.0001$).

In the Phase 3 DUO study, 319 patients were randomized 1:1 to receive either duvelisib 25mg twice daily until disease progression or unacceptable toxicity or ofatumumab, an approved standard of care treatment for use in CLL/SLL, per its label with an initial infusion of 300 mg followed by 7 weekly infusions and 4 monthly infusions of 2,000 mg. In addition to the primary endpoint of PFS in the ITT population a stratification factor to evaluate the outcome in the patients with 17p deletion CLL/SLL, a known poor prognostic subgroup, was conducted. PFS and other efficacy endpoints were analyzed using response determinations per the IRC using modified iwCLL/IWG criteria.

Duvelisib monotherapy had a manageable safety profile, with results from this study consistent with the well-characterized safety profile of duvelisib monotherapy in patients with advanced hematologic malignancies. Verastem intends to submit detailed results from the Phase 3 DUO study for publication in a peer-reviewed medical journal and for presentation at an upcoming scientific meeting.

"We are extremely grateful to the patients, caregivers, and investigators who participated in the DUO study and we are pleased to be that much closer to delivering on our mission to develop drugs that improve the lives of patients with cancer," said Robert Forrester, President and Chief Executive Officer of Verastem. "Duvelisib was an important strategic acquisition for Verastem. Both of our late-stage trials with duvelisib monotherapy (DUO and DYNAMO) have now achieved their primary endpoints, highlighting the significant potential of duvelisib in the treatment of advanced hematologic malignancies. We anticipate sharing these results with the FDA in preparation for a potential NDA filing during the first half of 2018 and look forward to exploring subsequent development opportunities for duvelisib in additional cancers."

Conference Call Information

The Verastem management team will host a conference call today, Wednesday, September 6, 2017, at 8:00 AM (ET). The call can be accessed by dialing 1-877-341-5660 (toll-free) or 1-315-625-3226 (international) five minutes prior to the start of the call and providing the passcode 81095627.

The live, listen-only webcast of the conference call can be accessed by visiting the investors section of the Company's website at www.verastem.com. A replay of the webcast will be archived on the Company's website for 90 days following the call.

About Duvelisib

Duvelisib is an investigational, dual inhibitor of phosphoinositide 3-kinase (PI3K)-delta and PI3K-gamma, two enzymes known to help support the growth and survival of malignant B-cells and T-cells. PI3K signaling may lead to the proliferation of malignant B-cells and is thought to play a role in the formation and maintenance of the supportive tumor microenvironment.^{1,2,3} Duvelisib is currently being evaluated in late- and mid-stage clinical trials, including DUO™, a randomized, Phase 3 monotherapy study in patients with relapsed or refractory CLL/SLL⁴, and DYNAMO™, a single-arm, Phase

2 monotherapy study in patients with refractory iNHL.⁵ Both DUO and DYNAMO achieved their primary endpoints upon topline analysis of efficacy data. Duvelisib is also being evaluated for the treatment of other hematologic malignancies, including T-cell lymphoma, through investigator-sponsored studies.⁶ Information about duvelisib clinical trials can be found on www.clinicaltrials.gov.

About Verastem, Inc.

Verastem, Inc. (NASDAQ:VSTM) is a biopharmaceutical company focused on discovering and developing drugs to improve outcomes for patients with cancer. Verastem is currently developing duvelisib, a dual inhibitor of PI3K-delta and PI3K-gamma, which has successfully met the primary endpoints in both a Phase 2 study in double-refractory iNHL and a Phase 3 clinical trial in patients with relapsed/refractory CLL/SLL. In addition, Verastem is developing the FAK inhibitor, defactinib, which is currently being evaluated in three separate clinical collaborations in combination with immunotherapeutic agents for the treatment of several different cancer types, including pancreatic, ovarian, non-small cell lung cancer, and mesothelioma. Verastem's product candidates seek to treat cancer by modulating the local tumor microenvironment, enhancing anti-tumor immunity and reducing cancer stem cells. For more information, please visit www.verastem.com.

Verastem, Inc. forward-looking statements notice:

This press release includes forward-looking statements about Verastem's strategy, future plans and prospects, including statements regarding the development and activity of Verastem's investigational product candidates, including duvelisib and defactinib, and Verastem's PI3K and FAK programs generally, the structure of our planned and pending clinical trials and the timeline and indications for clinical development. The words "anticipate," "believe," "estimate," "expect," "intend," "may," "plan," "predict," "project," "target," "potential," "will," "would," "could," "should," "continue," and similar expressions are intended to identify forward-looking statements, although not all forward-looking statements contain these identifying words. Each forward-looking statement is subject to risks and uncertainties that could cause actual results to differ materially from those expressed or implied in such statement. Applicable risks and uncertainties include the risks that the full data from the DUO study will not be consistent with the top-line results of the study; that the preclinical testing of Verastem's product candidates and preliminary or interim data from clinical trials may not be predictive of the results or success of ongoing or later clinical trials; that even if data from clinical trials is positive, regulatory authorities may require additional studies for approval and the product may not prove to be safe and effective; that the degree of market acceptance of product candidates, if approved, may be lower than expected; that the timing, scope and rate of reimbursement for our product candidates is uncertain; that there may be competitive developments affecting our product candidates; that data may not be available when expected; that enrollment of clinical trials may take longer than expected; that our product candidates will cause unexpected safety events or result in an unmanageable safety profile as compared to their level of efficacy; that duvelisib will be ineffective at treating patients with lymphoid malignancies; that Verastem will be unable to successfully initiate or complete the clinical development of its product candidates; that the development of Verastem's product candidates will take longer or cost more than planned; that Verastem may not have sufficient cash to fund its contemplated operations; that Verastem or Infinity Pharmaceuticals, Inc. will fail to fully perform under the duvelisib license agreement; that Verastem will not pursue or submit regulatory filings for its product candidates; and that Verastem's product candidates will not receive regulatory approval, become commercially successful products, or result in new treatment options being offered to patients. Other risks and uncertainties include those identified under the heading "Risk Factors" in Verastem's Annual Report on Form 10-K for the year ended December 31, 2016 and in any subsequent filings with the U.S. Securities and Exchange Commission. The forward-looking statements contained in this press release reflect Verastem's views as of the date of this release, and Verastem does not undertake and specifically disclaims any obligation to update any forward-looking statements.

References

¹ Winkler et al. PI3K-delta and PI3K-gamma inhibition by IPI-145 abrogates immune responses and suppresses activity in autoimmune and inflammatory disease models. *Chem Biol* 2013; 20:1-11.

² Reif et al. Cutting Edge: Differential roles for phosphoinositide 3 kinases, p110-gamma and p110-delta, in lymphocyte chemotaxis and homing. *J Immunol* 2004;173:2236-2240.

³ Schmid et al. Receptor tyrosine kinases and TLR/IL1Rs unexpectedly activate myeloid cell PI3K, a single convergent point promoting tumor inflammation and progression. *Cancer Cell* 2011;19:715-727.

⁴ www.clinicaltrials.gov, NCT02004522

⁵ www.clinicaltrials.gov, NCT01882803

⁶ www.clinicaltrials.gov, NCT02783625, NCT02783625, NCT02158091

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