July 8, 2013

Astex Pharmaceuticals Announces IND Candidate: ASTX727 a Potential Best-in-Class Oral Hypomethylator

Investigational New Drug (IND) Application and Data Presentations Planned for the Fourth Quarter

DUBLIN, Calif., July 8, 2013 (GLOBE NEWSWIRE) -- Astex Pharmaceuticals, Inc. (Nasdaq:ASTX), a pharmaceutical company dedicated to the discovery and development of novel small molecule therapeutics, announced today its plan to submit an Investigational New Drug or IND application to the Food and Drug Administration (FDA) for ASTX727, a novel oral hypomethylating agent (HMA) in the fourth quarter of this year.

ASTX727 is intended as a fixed dose oral combination product consisting of decitabine and E7727, a novel cytidine deaminase inhibitor (CDAi) licensed from Eisai Inc. ASTX727 allows for an efficient oral delivery of decitabine at low doses. Relevant animal studies revealed that the product can result in therapeutic exposures of decitabine at low doses. The profile of E7727 is expected to result in low inter-patient variability across doses of decitabine with little or no gastrointestinal safety issues. Later this year, preclinical data on ASTX727 will be submitted for presentation at a scientific meeting.

"We are pleased to announce that ASTX727, in the late pre-clinical stage of development, becomes the third product in our epigenetic franchise that began with DACOGEN® (decitabine) for Injection. This franchise includes SGI-110, expected to enter Phase III clinical trials in 2014," commented James S.J. Manuso, Ph.D., Astex Pharmaceuticals chief executive officer and chairman. "The role of HMAs, in a wide range of therapeutic indications, is just beginning to be understood. ASTX727, potentially a best-in-class oral HMA, will be an important addition to our portfolio of medicines in clinical development."

About ASTX727

Cytidine deaminase (CDA) is an enzyme that is responsible for the degradation of nucleosides, including decitabine and azacitidine. High levels of CDA in the gastrointestinal tract and liver rapidly degrade these nucleosides and prohibit or limit their oral bioavailability. E7727 is a proprietary and patented New Molecular Entity (NME) with a very wide therapeutic margin that inhibits CDA activity. Decitabine can be delivered orally and efficiently absorbed in the gut when it is combined with E7727 due to the inhibition of CDA by E7727. ASTX727 is being developed as a fixed dose oral product that combines E7727 and decitabine. This oral HMA with the potential to be best-in-class will enter clinical development in 2014. Astex has a worldwide license to E7727 from Eisai Inc.

About Astex Pharmaceuticals

Astex Pharmaceuticals is dedicated to the discovery and development of novel small molecule therapeutics with a focus on oncology. The Company is developing a proprietary pipeline of novel therapies and is creating de-risked products for partnership with leading pharmaceutical companies. Astex Pharmaceuticals developed and out-licensed DACOGEN® (decitabine) for Injection and receives significant royalties on global sales.

For more information about Astex Pharmaceuticals, Inc., please visit http://www.astx.com.

Forward-Looking Statements

This press release contains "forward-looking" statements within the meaning of Section 21A of the Securities Act of 1933, as amended, and Section 21E of the Securities Exchange Act of 1934, as amended, and is subject to the safe harbor created thereby. These statements are typically preceded by words such as "believes," "expects," "anticipates," "intends," "will," "may," "should," or similar expressions. Actual results could differ materially from those projected in the forward-looking statements as a result of a number of risks and uncertainties. These forward-looking statements include, but are not limited to, expectations regarding the advancement of drug candidates in the clinic; the Company's ability to develop the current and future pipeline into commercially viable drugs; the expectations regarding our clinical trials including the timing of clinical proof of concept data from these trials. Important factors that could cause actual results to differ materially from the expectations reflected in the forward-looking statements include, but are not limited to: the outcomes of the on-going clinical trials; risks and uncertainties related to the research and development of ASTX727. References made to the discussion of risk factors are detailed in the

Company's filings with the Securities and Exchange Commission including reports on its most recently filed Form 10-K and Form 10-Q. These forward-looking statements are made only as of the date hereof, and we disclaim any obligation to update or revise the information contained in any such forward-looking statements, whether as a result of new information, future events or otherwise.

CONTACT: Timothy L. Enns

Astex Pharmaceuticals, Inc.

Senior Vice President

Corporate Communications & Marketing

Tel: +1 (925) 560-2810

E-mail: tim.enns@astx.com

Susanna Chau

Astex Pharmaceuticals, Inc.

Manager

Investor Relations

Tel: +1 (925) 560-2845

E-mail: susanna.chau@astx.com

Alan Roemer

The Trout Group

Managing Director

Tel: +1 (646) 378-2945

E-mail: aroemer@troutgroup.com