Astex Announces a CRADA with the National Cancer Institute for its HSP90 inhibitor AT13387

Cambridge, UK, 3rd November 2009

Astex Therapeutics Limited, the UK based biotechnology company developing targeted therapies for oncology, announced today the signing of a Cooperative Research and Development Agreement (CRADA) with the National Cancer Institute (NCI) to collaborate on the study of its novel small molecule HSP90 inhibitor, AT13387, for the treatment of cancer.

Under the new agreement, the National Cancer Institute's Division of Cancer Treatment and Diagnosis (DCTD) and Astex will evaluate AT13387 in multiple Phase 1 and Phase 2 clinical trials, both as a single agent and in combination, in patients with tumors that are expected to be sensitive to inhibition of HSP90. Non-clinical studies designed to enhance the development of AT13387 as a new therapeutic option for cancer patients will also be pursued. The five year programme will allow NCI and Astex to fully explore the potential of AT13387 in the treatment of a wide range of cancers. The new agreement builds on NCI's earlier support of the geldanamycin class of natural product HSP90 inhibitors.

AT13387 is the third drug candidate arising from Astex's internal discovery and development programmes to be approved for clinical trials and is currently being investigated in a Phase 1 clinical trial in patients with solid tumors at three centres in Boston. Studies in tumour models show that AT13387 is differentiated from other molecules in the class by its potency, extended pharmacodynamics, long tumour half-life and improved preclinical safety profile. Of particular note is the fact that AT13387 is retained by and becomes concentrated in tumor cells, creating the opportunity for a highly specific, targeted cancer treatment.

Dr Harren Jhoti, Chief Executive Officer of Astex Therapeutics, said, "The announcement of this CRADA for AT13387 is a significant milestone in the development of our novel HSP90 inhibitor, supporting its potential as a "best in class" treatment option for patients with cancer. We look forward to working closely with the NCI as we move ahead with Phase 2 clinical trials of AT13387 as a novel therapy for a wide range of cancer types."

-ends-

About Astex Therapeutics

Astex is a UK-based biotechnology company that discovers and develops novel small molecule therapeutics. Using its pioneering fragment-based drug discovery platform Pyramid™, Astex has built a pipeline of five molecularly targeted oncology drugs, of which three are currently being tested in clinical trials and two are in pre-clinical development.

In addition to its proprietary research programmes, Astex's productivity in lead discovery has been endorsed through numerous partnerships with major pharmaceutical companies, including AstraZeneca, Bayer-Schering, Boehringer Ingelheim, Novartis and Johnson & Johnson.

For further information on Astex please visit the Company's website at www.astex-therapeutics.com

About HSP90 and AT13387

Heat Shock Protein 90 (HSP90) is induced under conditions of cellular stress to ensure a cell has an increased capacity to maintain proper protein folding. HSP90 is a member of a family of molecular "chaperones" which are required for the functional stabilization and activation of numerous "client proteins", many of which are intimately involved in the regulation of cell growth and division. These client proteins function as oncogenes in a variety of tumor settings, for example, providing growth factor independence (Raf-1, HER-2); invasion and metastasis (MMP2, MET); sustained angiogenesis (VEGFR, HIF-1); cell survival (AKT, RIP, Survivin); resistance to anti-growth signals (CDK4); and unlimited replicative potential (hTERT).

The precise manner in which HSP90 influences the folding of these proteins is not fully understood, but the process is known to be ATP-dependent. Inhibition of the binding of ATP to HSP90 induces the degradation of these client proteins ultimately resulting in cell death and thus presents a potential therapeutic opportunity. It has been shown that HSP90 is expressed at levels 2-10-fold higher in tumor cells than in normal cells and over-expression of HSP90 has been correlated with decreased

survival in breast cancer. Further, HSP90 appears to protect tumor cells that have an increased genetic instability which would otherwise lead to a rise in the level of mutated client proteins. Since most tumors are characterized by multiple mutations conferring significant redundancy in critical signaling pathways, inhibition of a single target may not be sufficient to limit growth and metastases. HSP90 inhibitors hold the promise of affecting multiple aberrant signaling pathways and may prove to be of clinical benefit in the treatment of a wide range of cancers.

Inhibition of HSP90 with AT13387, a small molecule inhibitor discovered using Astex's fragment-based drug discovery approach, has been shown to result in client protein degradation, suppression of cytoplasmic signalling, cell cycle arrest and apoptosis. Some of these pharmacodynamic actions can last as long as 3 days in tumor xenografts following treatment with a single dose of AT13387. AT13387 has also demonstrated potent anti-proliferative effects in vitro in a panel of cancer cell lines.