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Publication of preclinical results demonstrates that masitinib can act as a potentiator of chemotherapies

AB Science SA (NYSE-Euronext - FR0010557264 - AB), a pharmaceutical company specializing in the research, development and commercialization of protein kinase inhibitors (PKIs), announces publication in *The Veterinary Journal* of results from a preclinical study showing that masitinib has potential as a chemosensitizer.

This study, conducted by Dr Douglas Thamm (VMD, Diplomate ACVIM Oncology; Colorado State University) and colleagues, investigated the ability of masitinib to sensitize different canine cancer cell lines to various chemotherapeutic agents. Results showed that masitinib sensitized numerous tumor cell lines from different origins (breast, bladder, melanoma, lymphoma, etc.) to chemotherapeutic drugs such as doxorubicin, gemcitabine and vinblastine. These data also provide additional weight to findings from studies showing that masitinib can enhance the antiproliferative effects of gemcitabine in human pancreatic cancer, including gemcitabine-resistant cell lines, which is a property not seen with other tyrosine kinase inhibitors (*Humbert et al. PLoS One, 2010*).

Dr Douglas Thamm declared: « *This study provides further evidence that masitinib can exert an anticancer action that extends beyond the inhibition of its main tyrosine kinase targets by acting in synergy with standard chemotherapies. Such chemosensitization may allow lower concentrations of chemotherapeutic agent to be used, thereby reducing toxicity risks, or may increase the available efficacy at standard doses* ».

Professor Olivier Hermine, President of the scientific committee of AB Science commented: « *These data taken together with findings in human pancreatic cancer cell lines are highly significant because one of the main limitations to certain chemotherapy treatments is drug resistance, and so a drug capable of counteracting resistance would facilitate the prolonged therapeutic benefits of such chemotherapies* ».

This publication is available from The Veterinary Journal online library: www.sciencedirect.com/science/journal/10900233 and can be cited as Thamm, D.H., et al. Masitinib as a chemosensitizer of canine tumor cell lines: A proof of concept study. *The Veterinary Journal* (2011), doi:10.1016/j.tvjl.2011.01.001. Publication in the paper version is scheduled for the coming months.

To read more about publications of masitinib in human and veterinary medicine visit www.ab-science.com

Masitinib was the first ever approved anticancer drug in veterinary medicine, receiving approval from the European Medicines Agency (EMA) under the trade name Masivet. Masitinib has also recently become obtainable in the United States under the trade name Kinavet CA-1, having received conditional approval in December 2010 from the US Food and Drug Administration (FDA) for treatment of recurrent or nonresectable Grade II and Grade III cutaneous mast cell tumors in dogs that have not previously received radiotherapy and/or chemotherapy except corticosteroids. AB Science is developing masitinib in veterinary medicine in oncology, including several studies to further investigate masitinib's potential as a chemosensitizer, as well as in non oncology diseases, such as canine atopic dermatitis or asthma in cats. A summary of masitinib's veterinary clinical development program is provided below (note that this list of indications reflects the development program of masitinib in veterinary medicine and should not be interpreted as a list of indications for which masitinib has demonstrated efficacy).

Besides using the animal health segment as a source of revenues to finance its clinical development program in human medicine, AB Science is also using veterinary medicine as a platform to discover new indications for its lead compound masitinib and translate this use into human medicine. The first application of this strategy was made recently (press release dated 8/10/2010) with the decision to initiate a phase 3 study in metastatic melanoma expressing JM mutation of c-Kit. This decision was facilitated by evidence showing that masitinib could generate tumor response in animal with melanoma.

Masitinib is being developed for several oncology and immune-mediate indications in veterinary medicine.

Targets	Action	Therapeutic potential	
c-Kit	Inhibition of proto-oncogenic targets	MCT*	Histiocytic sarcoma [†]
PDGFR		T-cell lymphoma*	Osteosarcoma (post amputation) [†]
FAK pathway	Potentiation of chemotherapeutic agents	Melanoma**†	Bladder cancer [†]
Lyn/FAK		Hemangiosarcoma [†]	Mammary tumors [†]
Mast Cells via	Inhibition of mast cell activation	Atopic dermatitis*	Asthma*
KIT / Lyn		Arthritis*	Inflammatory Bowel Disease*

* Masitinib administered as monotherapy. † Masitinib administered in combination with standard chemotherapy.

About masitinib

Masitinib is a new orally administered tyrosine kinase inhibitor that targets mast cells, important cells for immunity, as well as a limited number of kinases that play key roles in various cancers. Owing to its novel mechanism of action, masitinib can be developed in a large number of conditions in oncology, in inflammatory diseases and in certain diseases of the central nervous system. Through its activity of inhibiting certain kinases that are essential in some oncogenic processes, masitinib may have an effect on tumor regression, alone or in combination with chemotherapy. Through its activity on the mast cell and certain kinases essential to the activation of the inflammatory cells and fibrosing tissue remodeling, masitinib can have an effect on the symptoms associated with some inflammatory and central nervous system diseases.

About AB Science www.ab-science.com

Founded in 2001, AB Science is a pharmaceutical company specializing in the research, development and commercialization of protein kinase inhibitors (PKIs), a new class of targeted molecules whose action is to modify signaling pathways within cells. Through these PKIs, the Company targets diseases with high unmet medical needs (cancer, inflammatory diseases and central nervous system diseases), in both human and veterinary medicines. Thanks to its extensive research and development capabilities, AB Science has its own portfolio of molecules. Masitinib, a lead compound, has already been registered in veterinary medicine in Europe and in the USA, and is pursuing nine phase 3 studies in human medicine, including five studies on-going in pancreatic cancer, GIST, in metastatic melanoma expressing JM mutation of c-Kit, in mastocytosis, and severe persistent asthma.

This document contains prospective information. No guarantee can be given as for the realization of these forecasts, which are subject to those risks described in documents deposited by the Company to the Authority of the financial markets, including trends of the economic conjuncture, the financial markets and the markets on which AB Science is present.