Paris, 09 March 2020, 9pm

Summary of webcast with Key Opinion Leaders on masitinib Phase 2B/3 results in Progressive Forms of Multiple Sclerosis

AB Science SA (NYSE Euronext - FR0010557264 - AB) is providing a summary of the live webcast held on 06 March 2020 with key opinion leaders in progressive forms of multiple sclerosis and the role that masitinib may play in treating this disorder.

The presentation of the webcast is available on the company's website.
A replay of the webcast is available at the following address:
https://viavid.webcasts.com/starthere.jsp?ei=1287098&tp_key=ba20d13f6c

The results of the Phase 2B/3 study were presented by professor Patrick Vermersch who was the international coordinator of the study.

The key messages and results were:

There are two main forms of multiple sclerosis (MS), relapsing remitting (RRMS) and progressive (PMS). While significant progress has been made in the relapsing form of MS, with 15 approved drugs, there is still a very high unmet medical need for treating patients with primary progressive MS (PPMS) and non-active secondary progressive MS (nSPMS), with no approved drugs for nSPMS and only one for PPMS.

Considering that PPMS and nSPMS account for 50% of all MS patients (i.e. around 500,000 patients in Europe and North America), there is significant urgency to treating this large population.

Relapsing forms of MS are predominantly driven by peripheral, adaptive immunity (e.g. B cell and T cell lymphocytes). Most of the drugs registered in RRMS targets T cells and/or B cells, but failed in progressive forms of MS or had inconclusive results. In contrast, PPMS and nSPMS are predominantly driven by other mechanisms, notably the innate immune system.

Masitinib is a *first in class* oral drug designed for progressive forms of multiple sclerosis, which targets the innate immune system, specifically mast cells and microglia.

The Phase 2B/3 trial (AB07002) was a prospective, multicenter, randomized (2:1), double-blind, placebo-controlled, 2-parallel groups study evaluating oral masitinib as a treatment for progressive multiple sclerosis (MS). Eligible patients aged 18-75 years, with baseline Expanded Disability Status Scale (EDSS) 2.0–6.0, regardless of time-from-onset, and diagnosed with primary progressive (PPMS) or non-active secondary progressive (nSPMS) MS, were treated for 96 weeks.

The study was comprised of two independent sub-studies testing two distinct dosing regimens (masitinib 4.5 mg/kg/day versus its own placebo control (n=301), and masitinib 6.0 mg/kg/day titration versus its own placebo control (n=310)).

The primary endpoint was absolute change from baseline on Expanded Disability Status Scale (EDSS) averaged for 8 time points measured every 12 weeks over 2 years, with a sensitivity analysis based on the ordinal EDSS change (i.e. +1 if improvement; 0 if stable; -1 if worsening). Time to first EDSS progression and time to confirmed EDSS progression were pre-specified for sensitivity analysis, although the study was not powered to detect an effect on these endpoints (Detecting a significant effect would have required around

1,000 patients per dosing group). Analyses were performed on the modified Intent-To-Treat population which is all patients who have taken at least one dose of study drug.

The study met its primary analysis, demonstrating a statistically significant reduction in disability progression on EDSS with masitinib 4.5 mg/kg/day (p=0.0256). This treatment-effect was consistent for PPMS and nSPMS.

The sensitivity analysis based on ordinal EDSS change showed a significant 39% increased probability of having either more disease improvements or fewer disease progressions with masitinib treatment (p=0.0446). In addition, masitinib significantly reduced the risk of first disability progression by 42% and the risk of confirmed (3 months) disability progression by 37%. Masitinib also significantly reduced the risk of reaching an EDSS score of 7.0, corresponding to disability severe enough that the patient is restricted to a wheelchair (p=0.0093).

Masitinib has the potential to be a best-in-class drug for treating PPMS and nSPMS because of its favorable efficacy and tolerability profile as compared to other drugs:

- Masitinib significantly reduced the risk of first disability progression by 42% and the risk of confirmed (3 months) disability progression by 37% (not statistically significant due to the limited number of events), which compared favorably to ocrelizumab (24% reduction) and siponimod (21% reduction).
- Masitinib showed a difference with placebo of -0.097 on average of change in EDSS over a 2 years period.
- Masitinib is an oral drug that is not immunosuppressive and can be delivered after years of previous immunosuppressive treatments for nSPMS.

Safety in study AB7002 was consistent with the known profile for masitinib.

No significant treatment-effect on EDSS was observed for high-dose masitinib (6 mg/kg/day). Numerically, masitinib 6.0 mg/kg/day efficacy improvements were comparable to masitinib 4.5 mg/kg/day. However, the placebo comparator for the 6.0 mg/kg/day titration showed an abnormal improvement in EDSS change, driven by PPMS patients (while the placebo comparator for the 4.5 mg/kg/day dose was in line with the historic literature). Consequently, the 6.0 mg/kg/day titration scheme was deemed inconclusive. Given the positive benefit/risk balance with 4.5 mg/kg/day, the 6.0 mg/kg/day titration scheme will no longer be pursued in MS.

AB Science intends to present detailed study results at one or more major scientific conference in the next 6 months.

AB Science will consult with the FDA (through EOP2 meeting) and with the EMA (through Scientific Advice) to discuss the appropriate pathway forward for masitinib in the treatment of progressive forms of multiple sclerosis, including the possibility to file based on study AB07002 as a single pivotal trial and the design of a confirmatory study if required.

Masitinib IP rights are secured up to 2031 in multiple sclerosis, and potentially until 2040 with a recently filed patent that was based on AB07002 study results.

Patrick Vermersch, Professor of Neurology at Lille University in France and coordinating investigator of study AB07002 said, "*These results are very important because it is the first time that a drug targeting the innate immune cells, mast cells and microglia, as opposed to the usual strategy of targeting adaptative immune cells, B-cells and T-cells, had a beneficial impact on the course of the progressive forms of the disease.*"

Robert Fox, Professor of Neurology at Cleveland Clinic Lerner College of Medicine (USA) said, "*These results are quite encouraging. They are clinically relevant and consistent across many analyses of the EDSS score and across the 2 disease phenotypes - PPMS and nSPMS.*"

Friedemann Paul, Professor of Clinical Neuroimmunology and head of the neuroimmunology outpatient clinic at the Experimental and Clinical Research Centre (Berlin, Germany) said "*This study shows for the first time*

in a very advanced population a sustained benefit on disability progression. In addition, safety is equally important as efficacy because masitinib is not immunosuppressive and its safety profile is suitable for long-term administration".

Biography

The following scientific experts participated in the webcast:

Patrick Vermersch, MD, PhD
Patrick Vermersch, PhD studied medicine at the University Hospital in Lille, France, where he graduated in neurology. He then completed his education in more basic research fields, mainly in cellular biology between 1990 and 1994 with a PhD focused on biochemical abnormalities associated with Alzheimer's and other neurodegenerative diseases. He has also conducted research related to the characterizations of post-transcriptional anomalies of Tau proteins. His research interests then turned to multiple sclerosis (MS). In the year 2000, he created with colleagues the first MS network in northern France to improve both care and research into MS. Prof. Vermersch is in a department of neurology at the University of Lille, which deals with MS and other neuroinflammatory diseases. The department's principal scientific interests are neuroimmunology and markers of disease evolution. In 2019 he became a board member of the European Charcot Foundation.
Prof. Vermersch is currently vice-president for research in biology and health at the University of Lille. His current areas of interest are prognostic markers of MS and neuroimmunology in general. He participates in many therapeutic protocols on MS as member of steering committee. He has published approximately 400 scientific papers as author or co-author.

Friedemann Paul, MD
Prof. Paul is a professor of Clinical Neuroimmunology and head of the neuroimmunology outpatient clinic at the Experimental and Clinical Research Centre. He co-chairs Charité's Clinical and Experimental Multiple Sclerosis (MS) Research Centre. His main research areas are novel imaging techniques in autoimmune disorders of the CNS, the visual system in neuroimmunological disorders, and fatigue and cognition in MS and related conditions. Prof. Paul has authored and co-authored more than 300 papers in the field of clinical and basic neuroimmunology.

Robert J. Fox, MD
Dr. Fox is Staff Neurologist at the Mellen Center for Multiple Sclerosis, Vice-Chair for Research of the Neurological Institute, Cleveland Clinic, and Professor of Neurology at Cleveland Clinic Lerner College of Medicine. He received his medical degree from Johns Hopkins University, neurology training at the University of Pennsylvania, a master's degree in Clinical Research from Case Western Reserve University, and multiple sclerosis fellowship training at Cleveland Clinic. Dr. Fox's current research interests focus clinical trials in multiple sclerosis, innovative MRI techniques to evaluate tissue recovery after injury and the effects of MS treatments, as well as MS patient decision-making and tolerance to risk. He has published over 200 peer-reviewed papers, book chapters, and books. He serves as an advisor for many phase I, II, III, and IV clinical trials, including the principal investigator of the NIH-funded SPRINT-MS phase II trial of ibudilast in progressive MS. In addition, he serves as the Managing Director of the NARCOMS MS Patient Registry, which currently follows over 10,000 people with MS. Dr. Fox serves as a member of various advisory and review committees for the National MS Society (USA), International Progressive MS Alliance, the General Advisory Council for the Cleveland Clinic Clinical Research Unit, the Editorial Board of Neurology and Multiple Sclerosis Journal, and as a consultant to the pharmaceutical industry (including AB Science).

About masitinib
Masitinib is a new orally administered tyrosine kinase inhibitor that targets mast cells and macrophages, important cells for immunity, through inhibiting a limited number of kinases. Based on its unique 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. In oncology due to its immunotherapy effect, masitinib can have an effect on survival, alone or in combination with chemotherapy. Through its activity on mast cells

and microglia and consequently the inhibition of the activation of the inflammatory process, masitinib can have an effect on the symptoms associated with some inflammatory and central nervous system diseases and the degeneration of these diseases.

About AB Science

Founded in 2001, AB Science is a pharmaceutical company specializing in the research, development and commercialization of protein kinase inhibitors (PKIs), a class of targeted proteins whose action are key in signaling pathways within cells. Our programs target only diseases with high unmet medical needs, often lethal with short term survival or rare or refractory to previous line of treatment.
AB Science has developed a proprietary portfolio of molecules and the Company's lead compound, masitinib, has already been registered for veterinary medicine and is developed in human medicine in oncology, neurological diseases, and inflammatory diseases. The company is headquartered in Paris, France, and listed on Euronext Paris (ticker: AB).

Further information is available on AB Science's website: www.ab-science.com.

Forward-looking Statements - AB Science

This press release contains forward-looking statements. These statements are not historical facts. These statements include projections and estimates as well as the assumptions on which they are based, statements based on projects, objectives, intentions and expectations regarding financial results, events, operations, future services, product development and their potential or future performance.

These forward-looking statements can often be identified by the words "expect", "anticipate", "believe", "intend", "estimate" or "plan" as well as other similar terms. While AB Science believes these forward-looking statements are reasonable, investors are cautioned that these forward-looking statements are subject to numerous risks and uncertainties that are difficult to predict and generally beyond the control of AB Science and which may imply that results and actual events significantly differ from those expressed, induced or anticipated in the forward-looking information and statements. These risks and uncertainties include the uncertainties related to product development of the Company which may not be successful or to the marketing authorizations granted by competent authorities or, more generally, any factors that may affect marketing capacity of the products developed by AB Science, as well as those developed or identified in the public documents filed by AB Science with the Autorité des Marchés Financiers (AMF), including those listed in the Chapter 4 "Risk Factors" of AB Science reference document filed with the AMF on November 22, 2016, under the number R. 16-078. AB Science disclaims any obligation or undertaking to update the forward-looking information and statements, subject to the applicable regulations, in particular articles 223-1 et seq. of the AMF General Regulations.

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