PRESS RELEASE

AB SCIENCE RECEIVES REGULATORY APPROVAL FROM EUROPEAN COUNTRIES TO INITIATE THIRD STAGE OF PHASE I/II STUDY COMBINING ITS MOLECULE AB8939 WITH VENETOCLAX FOR THE TREATMENT OF ACUTE MYELOID LEUKEMIA

THE COMBINATION OF AB8939 TARGETING MICROTUBULE AND STEM CELLS AND VENETOCLAX TARGETING BCL-2 SHOWS POTENTIAL SYNERGISTIC EFFICACY AND GOOD HEMATOLOGICAL TOLERANCE COMPARED WITH STANDARD OF CARE CHEMOTHERAPIES, IN PARTICULAR IN THE POOR RESPONDERS TO STANDARD OF CARE CHEMOTHERAPIES

TREATMENT OF THE FIRST PATIENTS IS UNDERWAY

Paris, July 30, 2025, 8am CET

AB Science SA (Euronext - FR0010557264 - AB) today announced the approval of the third of four stages of the Phase I/II study (AB18001) with the compound AB8939 in adult patients with relapsed/refractory acute myeloid leukemia (AML).

The third stage has been approved in France, Germany, Spain and Greece.

The objective of the Phase 1 study is to determine the maximum tolerated dose (MTD) for different treatment stages of AB8939.

- Stage 1: Determination of the MTD after 3 consecutive days of treatment with AB8939 alone.
- Stage 2: Determination of the MTD after 14 consecutive days of treatment with AB8939 alone.
- Step 3: Determination of the MTD after 14 consecutive days of treatment with AB8939 in combination with venetoclax.
- Stage 4: Determination of MTD after 14 consecutive days of treatment with AB8939 in combination with venetoclax and azacitidine.

The first two stages of Phase 1 were completed with 28 and 13 patients enrolled, respectively, and determined the MTD of AB8939 after 3 consecutive days of treatment (21.3 mg/m^2) and after 14 consecutive days of treatment (21.3 mg/m^2).

The third stage now consists of evaluating the MTD after 14 consecutive days of treatment with AB8939 in combination with venetoclax, a standard treatment for AML.

Professor Olivier Hermine, MD, President of the Scientific Committee of AB Science and member of the Académie des Sciences in France said, "*The approval of this third stage is a key milestone for the Phase I/II study with AB8939 in AML. The combination of AB8939 and venetoclax has the potential to change the standard of care in the treatment of relapsed/refractory AML".*

- **Rationale for the AB8939 + venetoclax combination**

The combination of AB8939 + venetoclax has several potential benefits:

1 - Both molecules have low hematologic toxicity. This combination could therefore be less toxic than azacitidine + venetoclax as first-line treatment for AML.

2 - These two molecules act on different and complementary targets in cancer cells, which could have an additive or even synergistic effect in terms of efficacy.

- AB8939 has two modes of action:
    - Microtubule destabilization: Microtubules are cellular structures essential for cell division (mitosis). By destabilizing them, AB8939 prevents cancer cells from dividing properly, leading to their death. The advantage is that this type of chemotherapy is independent of the TP53 mutation that creates the most resistance to standard chemotherapies.
    - Inhibition of ALDH (aldehyde dehydrogenase): ALDH is an enzyme found in cancer stem cells, a subtype of cells in AML that are particularly resistant to treatment and responsible for relapses, as they can survive conventional chemotherapy. By inhibiting ALDH, AB8939 specifically targets these stem cells, reducing resistance to treatment and limiting the risk of relapse.
- Mechanism of action of venetoclax: Inhibition of BCL2
    - BCL2 is a protein that prevents apoptosis (programmed cell death) in cancer cells.
    - BCL2 is another factor in AML resistance, as it allows cancer cells to survive despite treatment.
    - By blocking BCL2, venetoclax promotes apoptosis, making cancer cells more vulnerable.
- There is an additive, even synergistic, potential for the combination

  By simultaneously targeting these mechanisms, the combination could reduce the chances of cancer cells escaping treatment (resistance).

  This potential synergistic effect arises from the fact that inhibiting ALDH and BCL2 could weaken the resistance mechanisms of cancer stem cells, while destabilizing microtubules prevents cell proliferation. Together, these actions are more powerful than if each molecule were used alone.

3 - Finally, AML is difficult to treat due to its heterogeneity and resistance mechanisms. AB8939 is effective *in vitro* and *in vivo* in animals and generates responses in human patients with the poorest prognostic factors when treated with standard of care chemotherapies, namely TP53 mutation, MECOM and complex karyotype.

- **Non-clinical pharmacology data**

Animal studies have demonstrated the following properties of AB8939 that are relevant for the treatment of AML:

- AB8939 is active *ex vivo* against AML cancer cells from chemotherapy-naive or chemotherapy-refractory/relapsed patients, particularly those with TP53 mutations or complex karyotypes.
- AB8939 eradicates *blasts* in the blood and bone marrow in PDX models resistant to 5-AraC (cytarabine), particularly those with MECOM rearrangements.
- AB8939 increases survival and has an additive effect in combination with the standard treatments azacitidine and venetoclax.
- ALDH expression is a characteristic of cancer stem cells (CSCs), and AB8939 is an ALDH1/2 inhibitor. Therefore, AB8939 is a targeted therapy for leukemic cancer stem cells.
- AB8939 eradicates leukemia cancer stem cells in a human PDX model of AML.

- **Potential market for AB8939 in AML**

Treatments for AML represent an estimated market potential of more than €2 billion per year.

Region	Incidence (1)	% of adressable market (poor responders to SoC chemotherapies First line or relapse) (2)	% Insured patients (2)	Drug price (€)	Market size (k€)
United States/Canada	23,700	50%	90	100,000 (3)	1,000,000
Europe	27,600		90	60,000	770,000
Asia-Pacific	27,800		30	60,000	250,000
India	11,000		30	60	100,000
Latin America	7,200		30	60,000	65,000
MENA	3,900		30	60,000	35,000
TOTAL	**90,200**				**2,200,000**

Europe = EU27 + Norway + United Kingdom + Switzerland; Asia-Pacific = Australia, People's Republic of China, Japan, New Zealand, Singapore, Taiwan; Latin America = Argentina, Brazil, Chile, Colombia, Costa Rica, Mexico; MENA = Algeria, Bahrain, Egypt, Israel, Kuwait, Morocco, Oman, Qatar, Saudi Arabia, Tunisia, United Arab Emirates

(1) Zhou, Y et al. Global, regional, and national burden of acute myeloid leukemia, 1990–2021: a systematic analysis for the global burden of disease study 2021. Biomark Res 12, 101 (2024).

(2) Estimated

(3) Choi M. et al. Costs per patient achieving remission with venetoclax-based combinations in newly diagnosed patients with acute myeloid leukemia ineligible for intensive induction chemotherapy. Journal of Managed Care & Specialty Pharmacy Volume 28, Number 9. https://doi.org/10.18553/jmcp.2022.22021

- **Intellectual property protection until 2036 (with potential 5 years extension) and 2044 for certain chromosomal abnormalities and orphan drug designation by EMA and FDA**

AB8939 was entirely discovered by AB Science, which retains full ownership of the intellectual property rights, reflecting AB Science's priority to develop innovative drugs aimed at improving patients' lives.

The composition of AB8939, including its use in the treatment of AML, is covered until 2026 by a patent granted in all geographical areas where AB8939 could be marketed, including Europe (patent EP 3253749), the United States (US 10,570,122), Canada (CA 2975644), China (CN 107531685), South Korea (KR 10-2544132), Japan (JP 6713000), Hong Kong (HK 1243700), Israel (IL 253779), Australia (AU 2016214283), Russia (RU 2758259), Brazil (BR 112017016883-9), Mexico (MX 377742), India (IN 480996) and South Africa (ZA 2017/05537).

An extension of this protection for 5 years is possible in certain countries.

A second patent application for medical use has been filed to protect the use of AB8939 in the treatment of AML with certain chromosomal abnormalities. If this application is accepted, protection for AB8939 will be extended until 2044 for these subpopulations of AML patients.

In addition to patent protection, AB8939 is also eligible for regulatory data protection in numerous countries, preventing generic competition for a period of up to 8 years from product registration.

AB8939 has also received orphan drug designation for AML from both the European Medicines Agency (EMA) and the US Food and Drug Administration (FDA). This orphan drug designation confers 10 and 7 years of marketing exclusivity in Europe and the US, respectively, from the date of product registration.

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 is crucial in cell signaling. Our programs target only diseases with high medical need, often fatal with low survival rates, rare, or resistant to first-line treatment.

AB Science has developed its own portfolio of molecules, and AB Science's lead molecule, masitinib, has already been registered for veterinary use and is being developed in humans for oncology, neurodegenerative diseases, inflammatory diseases, and viral diseases. The Company is headquartered in Paris and is listed on Euronext Paris (Ticker: AB).

For more information about the Company, please visit the 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 regarding projects, objectives, intentions and expectations regarding financial results, events, operations, future services, product development and potential or future performance.

These forward-looking statements can often be identified by words such as "expect," "anticipate," "believe," "intend," "estimate," or "plan," as well as by other similar words. Although AB Science believes that these forward-looking statements are reasonable, investors are cautioned that these forward-looking statements are subject to numerous risks and uncertainties, many of which are difficult to predict and generally beyond the control of AB Science, which could cause actual results and events to differ materially from those expressed, implied or predicted in the forward-looking information and statements. These risks and uncertainties include, in particular, the uncertainties inherent in the development of the Company's products, which may not be successful, or in the granting by the competent authorities of marketing authorizations or, more generally, any factors that may affect the marketability of the products developed by AB Science as well as those developed or identified in the public documents published by AB Science. AB Science undertakes no obligation to update forward-looking information and statements, subject to applicable regulations, in particular Articles 223-1 et seq. of the AMF's General Regulations.

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