Press Release

For immediate release

Advanced BioDesign announces Publication in HemaSphere Uncovering Novel Mechanism Driving Chemoresistance in Acute Myeloid Leukemia

Lyon, France – November 6th, 2025 — Advanced BioDesign, a French clinical-stage biotechnology company focused on developing innovative therapies for treatment-resistant cancers, today announced the publication of its latest research in HemaSphere, the official journal of the European Hematology Association. The article, titled "*Upregulation of ALDH1 as an adaptive epigenetic response to anthracyclines in acute myeloid leukemia*", reveals a previously unknown enhancer-mediated mechanism that drives resistance to anthracycline-based chemotherapy in Acute Myeloid Leukemia (AML).

The study found two key DNA regulatory sequence —called enhancers—that when cells are treated with daunorubicin, a common chemotherapy drug, enhanced the production of ALDH1A1 and ALDH1A2 genes which are commonly known as marker of resistance.

Importantly, the research shows that co-treatment with DIMATE (named as ABD-3001), a selective ALDH1A1/1A2 inhibitor, synergistically enhances daunorubicin efficacy in resistant AML models, providing strong preclinical evidence for combination strategies. High ALDH1 expression correlates with adverse genetic risk, prior anthracycline exposure, and inferior overall survival, particularly in relapsed/refractory AML.

> "*This discovery uncovers a critical mechanism of chemoresistance and validates ALDH1 as a therapeutic target in AML,"* said Ismail CEYLAN, CEO of Advanced BioDesign. *"It reinforces our clinical strategy to evaluate ALDH1 inhibition as currently being evaluated in our first-in-human ODYSSEY trial, but also we can now elaborate of potential combination with standard chemotherapy."*

The ODYSSEY trial is enrolling patients with relapsed/refractory AML to assess the clinical benefit of Advanced BioDesign's proprietary ALDH1 inhibitor, ABD-3001, in monotherapy. These findings support the rationale for future combination approaches aimed at improving outcomes for patients with high-risk AML.

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About Acute Myeloid Leukemia

AML represents a $1.5 billion global market, with limited innovation in frontline and salvage settings. Despite the introduction of targeted therapies, anthracycline-based chemotherapy remains a backbone of treatment, and resistance continues to drive poor outcomes. By addressing a key

resistance mechanism, Advanced BioDesign's ALDH1-targeted approach has the potential to transform the standard of care, expand into combination regimens, and capture significant share in both relapsed/refractory and high-risk AML segments. Beyond AML, ALDH1 inhibition opens opportunities in solid tumors and other hematologic malignancies, creating a multi-billion-dollar market potential.

About ABD-3001

ABD-3001 is the pharmacological form of DIMATE, a first-in-class "suicide" inhibitor of class 1 aldehyde dehydrogenases (ALDH1). This innovative molecule was developed to target a key survival mechanism of cancer cells. It works by blocking ALDH, which tumor cells often use to protect themselves from oxidative stress. By inhibiting this enzyme, DIMATE creates an internal imbalance that leads to cancer cell death, while largely sparing healthy cells. This approach aims to overcome resistance mechanisms to standard chemotherapy.
Currently being evaluated in a Phase 1 clinical trial, ODYSSEY, DIMATE could offer an innovative therapeutic option for patients with no remaining treatment alternatives.

About Xerys Invest

Xerys is a portfolio management company specializing in private equity with an approach that places the entrepreneur's vision at the heart of its investment philosophy. It aims to support the managers of the companies within Xerys's fund portfolios at every stage of their growth, from venture capital to maturity. Xerys therefore establishes a close, constructive and proactive relationship with the managers of its portfolio companies to support and advise them in their strategic decisions, arbitrations, and value creation. With this unique approach, Xerys builds a relationship of trust with both managers and investors, fostering shared value creation in the medium term.
For more information: **www.xerys.com**

About Advanced BioDesign

Advanced BioDesign is a French clinical-stage biotech focused on overcoming cancer treatment resistance by targeting ALDH1, a key enzyme that helps cancer cells survive therapy. Its lead drug candidate, ABD-3001, an ALDH1 inhibitor, is in Phase 1 trials for relapsed/refractory AML, showing promising early results. With broad potential across multiple cancers, a strong patent portfolio valid until 2044, and over €30M invested by Xerys Invest, the company aims to restore treatment sensitivity and significantly improve patient survival in a large, underserved market.

For more information: https://www.a-biodesign.com; LinkedIn @Advanced BioDesign

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Contacts :
Advanced BioDesign
Ismail CEYLAN – Chairman & CEO
+33 (0)777 686 687 / ismail.ceylan@a-biodesign.com