

Advanced BioDesign Presents ODYSSEY Clinical Data and New Preclinical Findings Supporting Combination Strategies at EHA 2026

Lyon, France – 2nd of June 2026 — Advanced BioDesign, a biotechnology company developing first-in-class ALDH1 inhibitors for treatment-resistant cancers, today announced the presentation of new data at the 2026 European Hematology Association (EHA) Congress.

The company highlights:

- clinical results from the Phase 1 ODYSSEY study evaluating ABD-3001, a first-in-class ALDH1 inhibitor, in patients with relapsed/refractory acute myeloid leukemia (R/R AML), and
- preclinical data supporting combination approaches with hypomethylating agents.

ODYSSEY clinical study: favorable safety and early signs of activity

Results from the ongoing first-in-human ODYSSEY trial demonstrate that ABD-3001:

- shows a manageable safety profile in a heavily pretreated population,
- achieves target engagement consistent with ALDH1 inhibition,
- and provides early signals of clinical activity in patients with R/R AML with limited treatment options.

The treated population reflects a high unmet medical need, with a median of three prior lines of therapy and the majority previously exposed to venetoclax-based regimens.

Pr Régis COSTELLO, MD, PhD, Hôpital de la Conception, Marseille, principal coordinator of the ODYSSEY study: *“The ODYSSEY results indicate that ABD-3001 can be safely administered to patients with relapsed or refractory AML, with evidence of on-target pharmacodynamic activity. Importantly, the early clinical signals observed in this difficult-to-treat population support further investigation of this novel mechanism of action.”*

Preclinical findings support combination with hypomethylating agents

Additional data presented at EHA 2026 highlights the biological role of ALDH1A1 in AML and reinforces its relevance as a therapeutic target. These studies show that ALDH1A1 inhibition reduces leukemic cell growth and survival and demonstrates strong synergy when combined with hypomethylating agents such as azacitidine and decitabine, leading to enhanced anti-leukemic activity compared to single agents.

Mileidys Perez, PhD, Chief Scientific Officer at Advanced BioDesign, commented: *“These preclinical findings provide a mechanistic and translational rationale for combining ALDH1 inhibition with hypomethylating agents in relapsed/refractory AML. By targeting stress-adapted leukemic cell states, the DIMATE–HMA combination may help address resistance mechanisms that limit the durability of current therapeutic approaches, including in patients previously exposed to venetoclax-based regimens.”*

Advancing combination strategies in R/R AML

Together, these clinical and preclinical findings support the continued development of ABD-3001 both as a monotherapy and in rational combination strategies in AML.

Ismail Ceylan, CEO of Advanced BioDesign: *“The data presented at EHA 2026 represent an important milestone for Advanced BioDesign. The ODYSSEY clinical results support the potential of ABD-3001 in patients with high unmet need, while the preclinical findings provide a strong scientific rationale*

for combination approaches, particularly with hypomethylating agents. These results will guide the next phases of our clinical development strategy.”

Accepted abstracts listed below are now available on the EHA conference website. Copies of poster presentations will be made available on Advanced BioDesign’s website after the embargo lifts.

Abstract Titles	Presentation Details
ODYSSEY: A First-in-Human Study of the Aldehyde Dehydrogenase (ALDH) Inhibitor ABD-3001 in Patients with Refractory/Relapsed Acute Myeloid Leukemia (AML) or High-Risk Myelodysplastic Syndrome (MDS)	Abstract Code: PS1638 Poster Session 2 Saturday, June 13 (18:45 - 19:45 CEST).
ALDH1A1 Inhibition in Combination with Hypomethylating Agents as a Salvage Strategy for Relapsed/Refractory AML	Abstract Code: PB2664

About ABD-3001

ABD-3001 is the pharmaceutical formulation of DIMATE, a first-in-class “suicide” inhibitor of class I aldehyde dehydrogenases (ALDH1). This innovative compound was developed to target a critical survival pathway in cancer cells. Its mechanism of action involves inhibition of ALDH enzymes, which are frequently exploited by tumor cells to mitigate oxidative stress. ALDH inhibition induces intracellular redox imbalance, ultimately leading to cancer cell death while largely sparing normal cells. This therapeutic strategy is designed to overcome resistance mechanisms associated with standard chemotherapy and currently available targeted therapies.

DIMATE is currently being evaluated in a Phase 1 clinical trial (ODYSSEY) and may represent a novel therapeutic option for patients with limited or no remaining treatment alternatives.

About the ODYSSEY clinical trial

ODYSSEY is a Phase I/II clinical trial for the treatment of relapse and refractory acute myeloid leukemia (AML). It is a multicenter study, with centers in Paris, Lyon and Marseille, designed to assess the safety and tolerability of the drug candidate ABD-3001.

Following an adaptive design, the study integrates an ascending single-dose first part, on six patient cohorts, followed by a second part, during which three patient cohorts will receive full four-week treatment cycles, enabling initial efficacy results to be obtained.

Fully funded by Advanced BioDesign, the ODYSSEY clinical trial is coordinated by Professor Régis COSTELLO (Hôpital de la Conception, Marseille), in collaboration with Professor Lina BENAÏBA (Hôpital Saint-Louis, Paris), Doctor Maël HEIBLIG (Hôpital Lyon Sud, Lyon), Doctor Ludovic GABELLIER (Hôpital Saint Eloi, Montpellier) and Professor Thomas CLUZEAU (Centre Hospitalier Universitaire de Nice, Nice).

About Acute Myeloid Leukemia

Acute myeloid leukemia (AML) represents an approximately USD 1.5 billion global market, characterized by limited therapeutic innovation in both frontline and salvage settings. Despite the introduction of targeted therapies such as azacitidine–venetoclax, anthracycline- and cytarabine-based chemotherapy remains the backbone of treatment, and primary or acquired resistance continues to drive poor clinical outcomes. By targeting a critical resistance mechanism, Advanced BioDesign’s ALDH1-directed therapeutic strategy has the potential to meaningfully reshape the treatment paradigm, enable rational combination regimens, and capture substantial market share in both relapsed/refractory and high-risk AML populations.

About Advanced BioDesign

Advanced BioDesign is a clinical-stage biotechnology company committed to addressing one of the most critical challenges in oncology: treatment resistance and relapse, which continue to impact millions of cancer patients worldwide. The company has developed a first-in-class therapeutic approach targeting ALDH1, a key enzyme leveraged by cancer cells to detoxify harmful metabolic by-products and evade the effects of standard treatments. Unlike therapies focused on specific genetic mutations, Advanced BioDesign's ALDH1 inhibitors act on a universal resistance mechanism shared across multiple tumor types. Its lead candidate, ABD3001, selectively disrupts cancer cell metabolism by inhibiting ALDH1, triggering apoptosis while sparing healthy cells—an innovative strategy designed to overcome chemoresistance. ABD3001 represents a major breakthrough in oncology, offering a novel, scalable, and mechanism-driven solution to treatment resistance. Supported by strategic partnerships, a pathway enabling rapid market entry, and a strong foundation in cellular biology, Advanced BioDesign is poised to redefine the standards of cancer therapy while delivering meaningful clinical and economic impact.

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

Contacts :

Advanced BioDesign

Ismail CEYLAN – Chairman & CEO

+33 (0)777 686 687 / ismail.ceylan@a-biodesign.com