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## Overcoming Cancer Drug Resistance

## Advanced BioDesign at a glance



Privately owned French clinical stage biotech company based in Lyon, founded in 2010.

6

**scientific publications**  
in peer reviewed high  
impact factor journals.

11

**patents families** on ALDH  
inhibitors with loss of  
exclusivity in 2040,  
estimated value of >120 M€.

30M€

invested in **preclinical and  
clinical development.**

16

**people** dedicated to propose  
innovative solutions to cancer  
patients.

2

**first-in-class drug candidates**  
targeting cancer resistance  
with a disruptive mechanism  
of action.

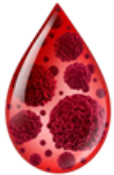
37

**patients** dosed to date in a  
First-In-Human Phase 1 on-  
going clinical trial for the  
treatment of Acute Myeloid  
Leukemia.

9bn€

**expected peak sales** by 2038.

### Main therapeutic areas



Leukemia



Breast Cancer



Lung Cancer

# Management Team and Advisory Board



**Ismail CEYLAN, MSCs, CEO  
Co-founder**

Ismail has extensive experience in leadership and strategic vision, driving the company's core objectives and fostering innovation. He is strongly committed to bringing new therapeutic options for patients in need.



**Nagi ZEENNY, MBA, CFO**

Nagi holds an MBA and is responsible for optimizing the company's financial health and sustainability. He is fully engaged in promoting ABD to potential investors.



**Mileidy PEREZ, PhD, CSO  
Co-founder**

Mileidy leads the scientific research initiatives, focusing on ALDHi mechanism of action and new therapeutic applications. She is devoted to explore new paradigms to expand the benefit of ALDHi to the greatest number of patients.



**Guillaume MARTIN, MSCs, COO  
Co-founder**

Guillaume oversees all operational strategies to ensure clinical development of the pipeline. He is dedicated to successfully implementing the clinical operations to offer the best treatment option to the patients.



**Alice GAUDIN, PhD,  
Pharmaceutical Science Director**

Alice leads all activities related to product development and manufacturing. She is committed to ensuring the availability of the best quality product for the patients.



## Advisory Board



**Dr David LIENS, MD, CMO**

***Founder of Bio-pharma & Life-Sciences Consulting***

David brings more than 20 years experience in medical affairs, specialized in orphan drug development. He acts as Chief Medical Officer for ABD, to bring a new treatment alternative to patients with no therapeutic options.



**Emmanuelle VOISIN, Regulatory Science  
Founder of Voisin Consulting**

Emmanuelle is a leading advisor to Biotech for the development, registration and launch of innovative medical technologies across international markets. She accompanies ABD for 7 years in its quest to bring disruptive therapeutic solution to patients.



**Prof Regis COSTELLO, MD, Investigator coordinator**

Professor Costello brings research and clinical expertise, advising on best practices and cutting-edge clinical developments in the field. He is at the forefront to propose ABD product to patients.





Impact

## Addressing unmet needs in cancer treatment

10  
million

deaths each year from cancer.

Up to 50%

of patients with advanced cancer are **resistant** to conventional treatments.

20 – 50%

of patients **relapse** following conventional treatments.



There is an urgent need for treatment options that specifically target **resistant and relapsed cancers** to significantly increase patients survival and recovery.





Treat all **resistant** and **relapse** cancer patients through specific aldehyde dehydrogenase (ALDH) inhibition.

Cancer Treatment Innovation

## Advanced BioDesign's Mission

Developing ALDH Inhibitors for  
Targeting Cancer Resistance  
Mechanisms



Focus on the treatment of **Acute Myeloïd Leukemia**.



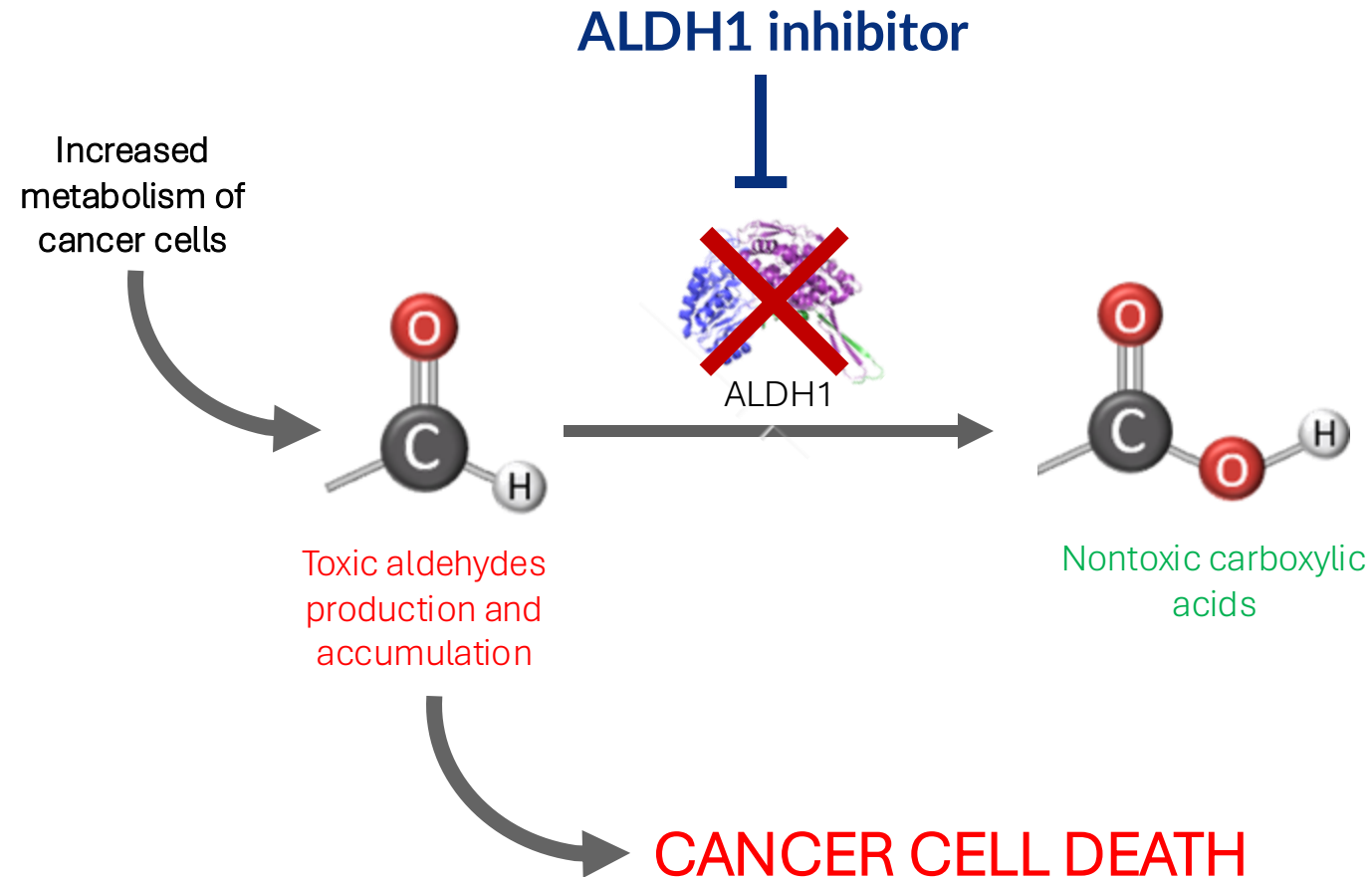
Expand our solution to the treatment of **Breast Cancer** and **Lung Cancer**.



ALDH1 plays an essential role in fetal development but has a limited and often redundant function in healthy adult cells. In contrast, ALDH1 is reactivated in cancer cells, where it helps with survival and treatment resistance.

Cancer Metabolism

## Pivotal Role of ALDH1 Inhibition in Oncology



Specific inhibition of ALDH1 induces cancer cell death without affecting normal cells.

# A unique approach to cancer treatment

Treatment	Global response rate	Relapse rate	Side effects	Use in all types of cancer	Treatment cost
Chimiotherapies	+++	++	+++	Yes	€
Immunotherapy	+	+	++	No	€€€
Targeted therapies	++ <i>(if mutation present)</i>	+	+	No	€€
ALDH inhibitors	++	+	+	Yes	€€



ALDH inhibitors constitutes a **unique approach to cancer treatment**, with the same advantages as targeted therapies but **applicable to all types of cancers**.

# A structured journey for a sound development

## 1980's

Discovery by Pr Gerard Quash (INSERM Lyon)

« We are convinced that it is possible to induce cancer cell death through ALDH inhibition »

**InsERM**

La science pour la santé  
From science to health

20 years of academic research on enzymatic role of ALDHs

## 2010 - 2013

Successful demonstration of *in vitro* proof of concept

Identification of DIMATE as lead compound of an ALDH inhibitors platform

### 2010

Foundation of biotech company **Advanced BioDesign**



## 2014

Patents acquisition by ABD

Reinforcement and acceleration of proof of concept activities

### 2013

Xerys Invest entry



## 2018 - 2022

ABD-3001 drug product development

Pharmaceutical development and regulatory toxicology studies

### 2022

ANSM authorization to launch First-in-Human Phase 1 clinical trial ODYSSEY in AML, **first GMP batch of ABD-3001** and beginning of administrations to patients



## 2023 - 2024





















































Successful completion of **Single Ascending Dose** and initiation of **Multiple Dose Regimens**

Phase 1 clinical trial for DIMATE and development activities for second lead ABD-0171

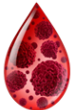




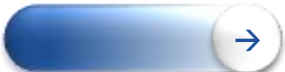


# A development protected by patents

> 100 patents  
estimated value  
> 120M€

Main proprietary family patents	Loss of exclusivity	Approved in
Use of ALDH inhibitors in cancer treatment	2036	   
Use of ALDH inhibitors in combination for cancer treatment	2036	   
New method for DIMATE synthesis	2037	        
Preferential substrate for ALDH enzymes (ALDESCREEN®)	2037	  
New generation of ALDH inhibitors	2040	               
Lipid nanoformulation of ALDH inhibitors	2041	
Use of ALDH inhibitors as an immunomodulatory agent	2041	             
Use of ALDH inhibitors in combination with hypomethylating agents	2044	

# Advanced BioDesign's pipeline

Program	Indication	Proof-of-concept	Regulatory Toxicology	Phase 1	Phase 2	Phase 3
<b>ABD-3001</b> Target: ALDH1A1, ALDH1A2	 Acute Myeloid Leukemia					Expected completion of Phase 1 in <b>Q1 2026</b>
<b>ABD-3171</b> Target: ALDH1A3	 Lung Cancer					
	 Breast Cancer					

## Treating Acute Myeloïd Leukemia

**110 000** cases in Europe and in the US.

**68 yrs** is the median age of AML patients at diagnosis.

**30%** of patients are resistant to standard treatments.

**50%** of patients will relapse after standard treatment within 1 year.

**< 12 months** of life expectancy for resistant and relapse patients.

Resistant and relapse AML patients are facing an absence of therapeutic options.

ALDH inhibition constitute a new hope for an alternative therapeutic strategy.

ODYSSEY (NCT05601726)

# First-in-Human Clinical Study in AML

Principaux objectifs et éléments  
méthodologiques de l'étude



**France**  
(Marseille,  
Lyon, Paris)



Initiated in  
**November 2022**



**21 patients** in Single  
Ascending Dose  
**36 patients** in Multiple Dose  
Study



**Safety,**  
**tolerability, early**  
**efficacy**



**Pr Régis COSTELLO**  
*Coordinateur*



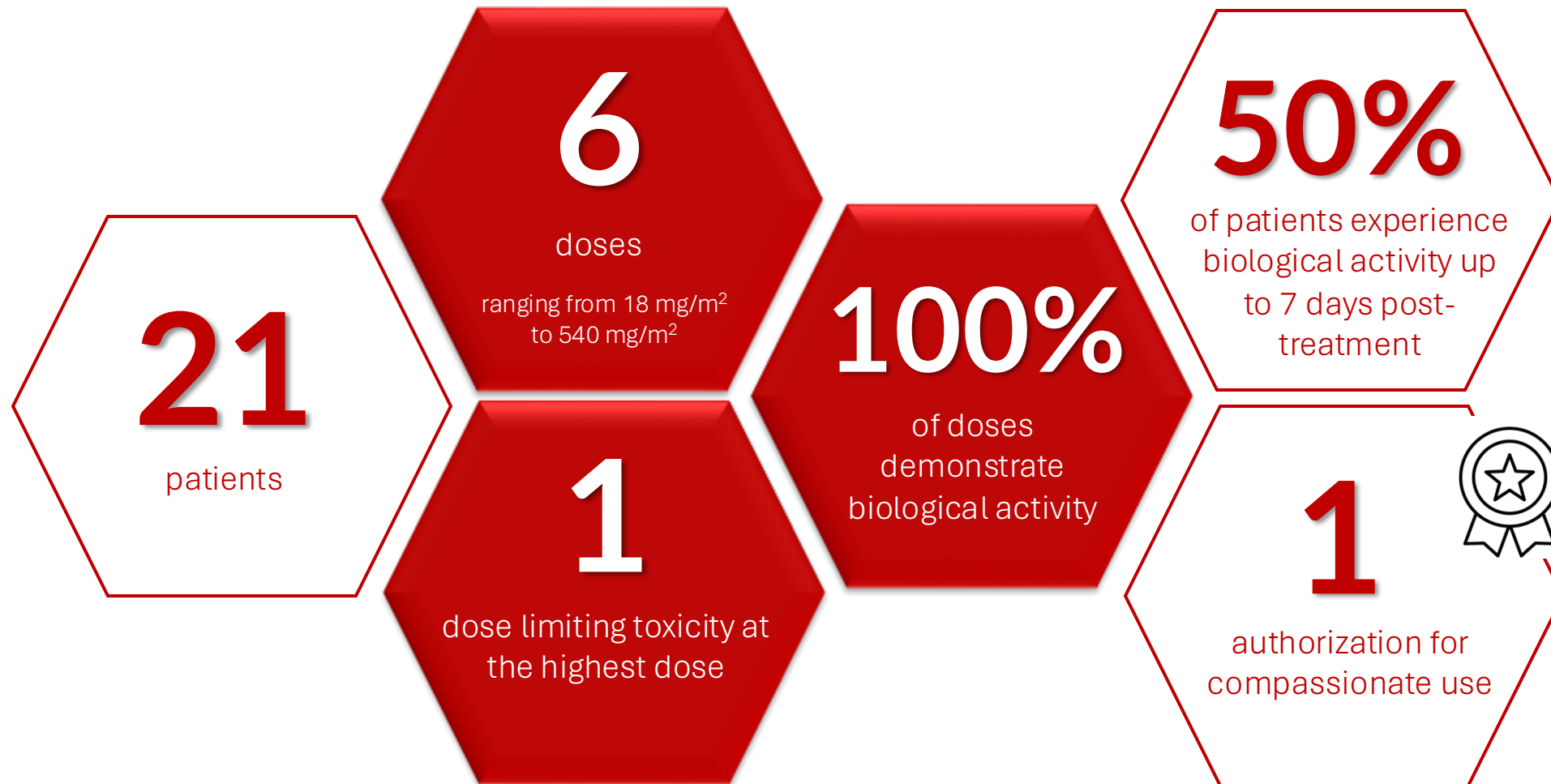
**Dr Lina BENAJIBAD**



**Dr Maël HEIBLIG**



# Single Ascending Dose - Conclusions



# Multiple Dose Regimens – Preliminary Results

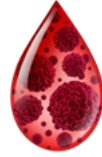




Cancer Diversity

# Potential Markets for ALDH1 Inhibitors

Expanding the Use of ALDH1  
Inhibitors in Cancer Treatment



## Acute Myeloid Leukemia

ALDHi are well tolerated  
and demonstrate positive  
preliminary results in  
Phase 1 clinical trial.



68 yo at diagnosis



35 000 new cases  
per year (EU + US)



70% possible  
market share as 3<sup>rd</sup>  
line of treatment



## Lung Cancer

ALDHi demonstrate  
efficacy in combination  
with radiotherapy in Non  
Small Cell Lung Cancer  
(NSCLC).



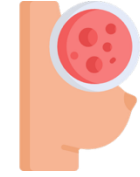
70 yo at diagnosis



400 000 new cases  
per year (NSCLC -  
EU + US)



70% possible  
market share as 2<sup>nd</sup>  
line of treatment in  
metastatic NSCLC



## Breast Cancer

ALDHi are effective in Triple-  
Negative Breast Cancer  
(TNBC) and in combination  
with specific targeted therapy.



48 yo at diagnosis



15 000 new cases per  
year (TNBC - EU + US)



70% possible  
market share as 2<sup>nd</sup>  
line of treatment in  
advanced TNBC

# Potential Revenue for ALDH1 inhibitors



ALDHi forecasted sales



5%



80%



15%



ABD forecasted value



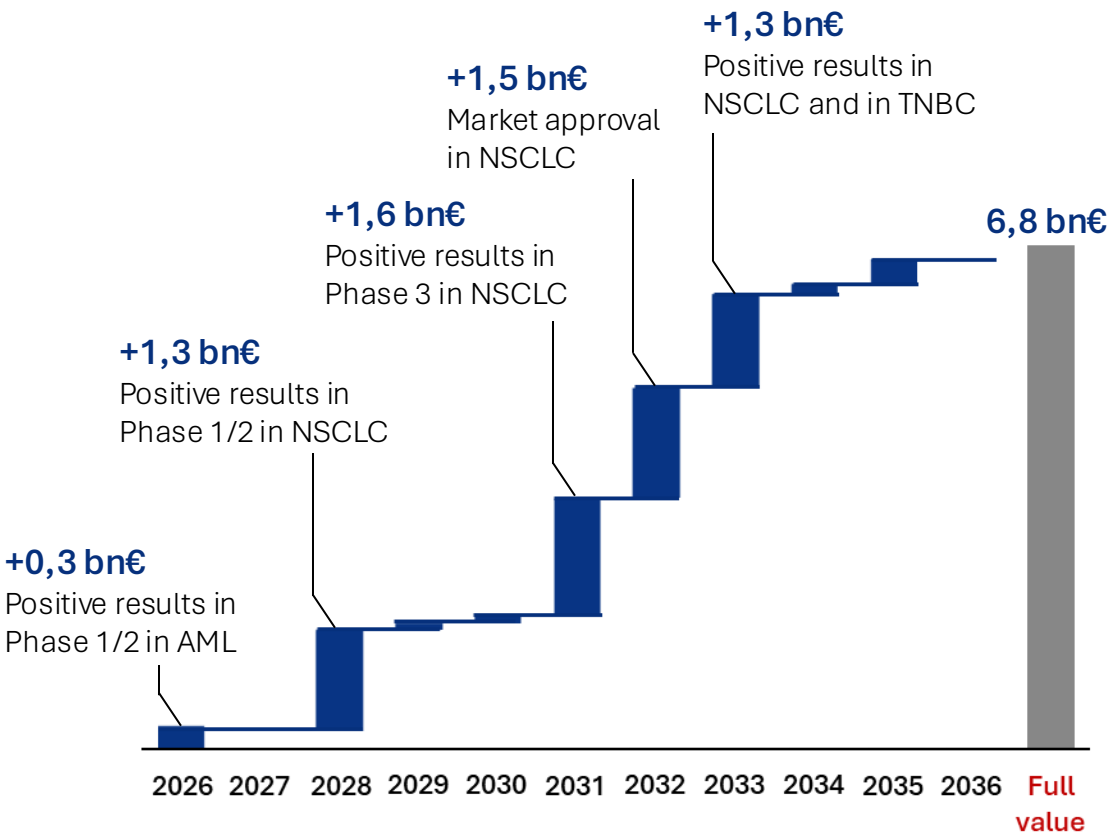
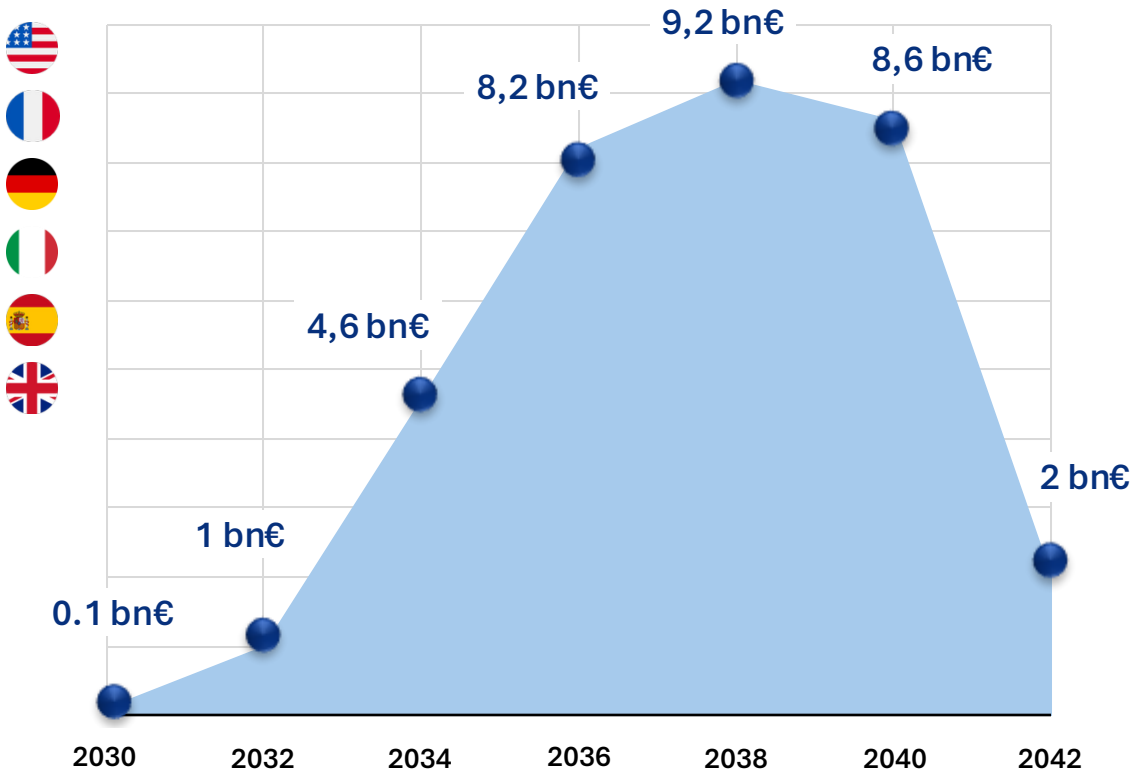
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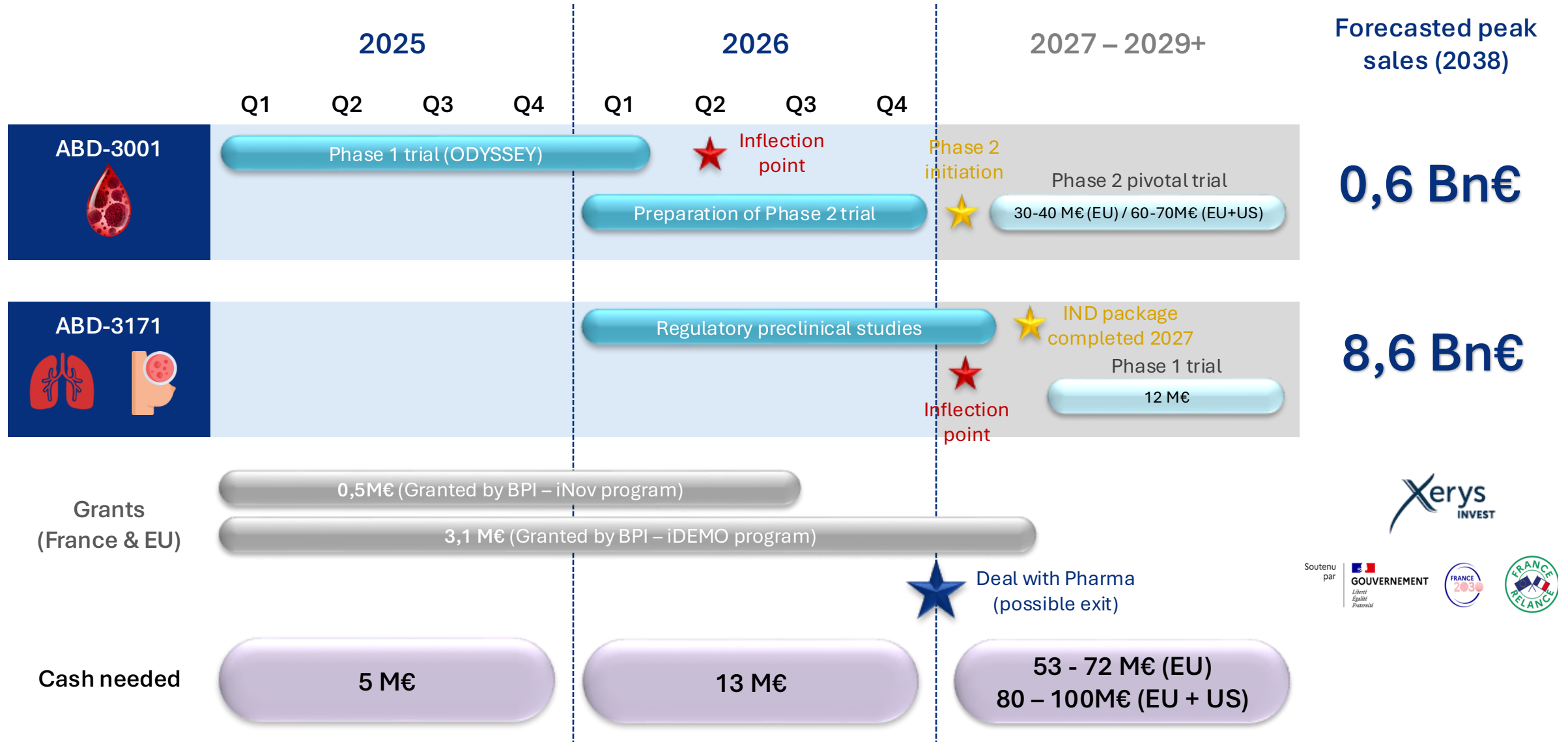
85%



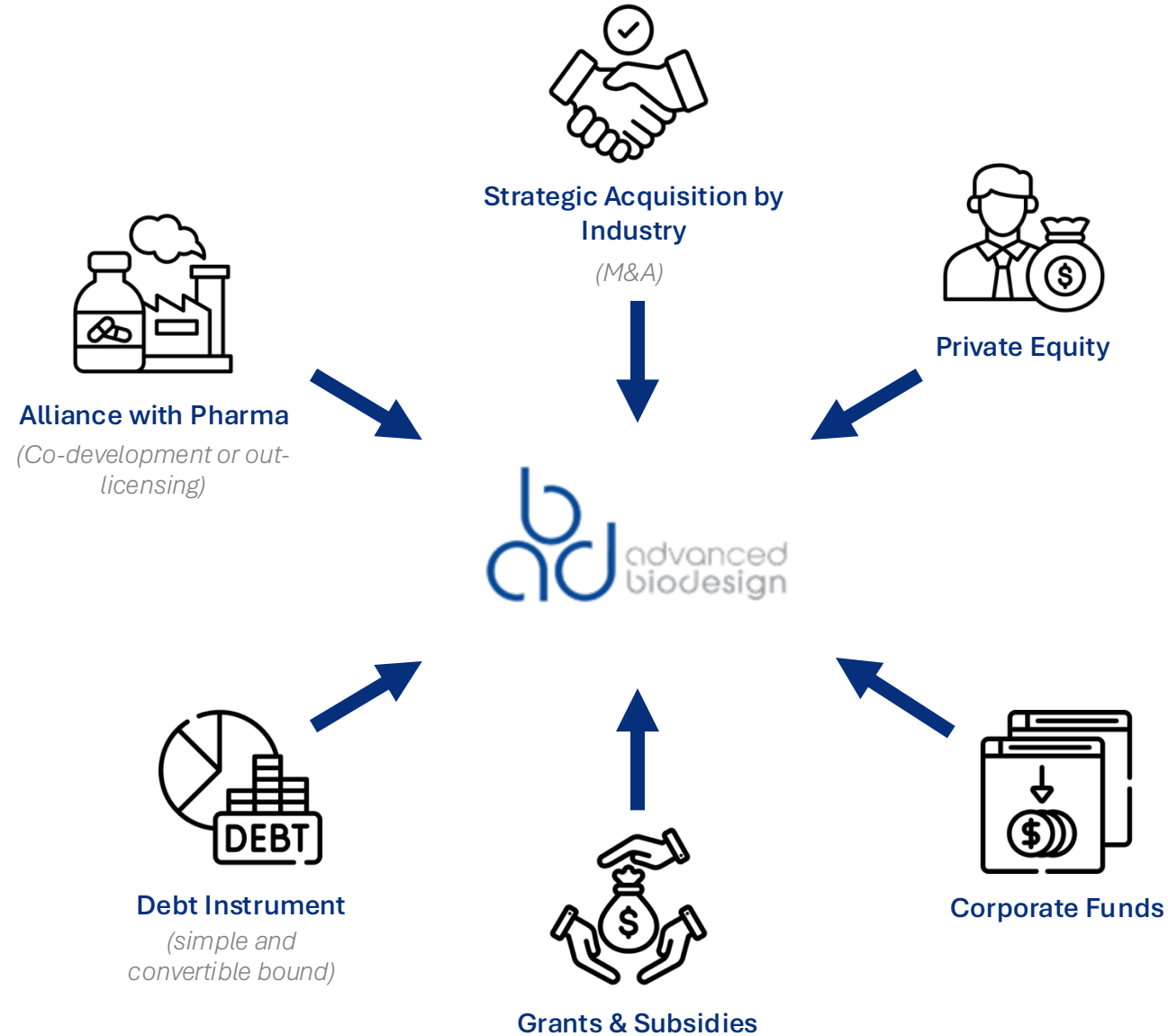
10%



# Key Financial Milestones



# Financing Strategies



Advanced BioDesign

## Summary and Key Takeaways

Developing ALDH1 Inhibitors for  
Targeting Cancer Resistance  
Mechanisms

- **Advanced BioDesign** has developed a unique and innovative approach allowing to potentially overcome treatment resistance in all types of cancer.
- First in Human clinical results in Acute Myeloid Leukemia are already demonstrating **good tolerability** and **promising efficacy signals**.
- This approach will be expanded to **other major solid cancers**.
- The deployment of this therapeutic strategy can lead to a **peak sale of > 9Bn€ by 2040**, and a maximization of the company value.
- The IP value is estimated to be **> 120M€**.
- Advanced BioDesign is exploring different **financing strategies**: *private equity, corporate funds, debt instruments, co-development with Pharma, out-licensing...*



Join us in Fighting against Cancer Resistance