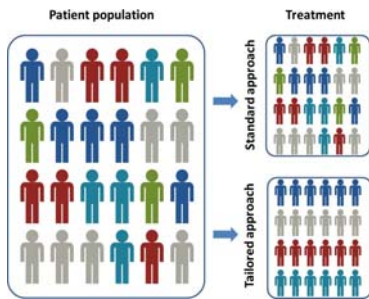


Blood-based Diagnostics for the Prediction of Treatment Response

ACOBION



ACOBION develops **Diagnostics** dedicated to **Precision Medicine**.

These Blood-based Diagnostic Tests can predict individual response of patients to certain treatments. These In-Vitro Diagnostics are non-invasive and can be performed from blood samples (liquid biopsy). They are based on the measure of a combination of patented biological markers and a proprietary analysis algorithm.

Hence, these Blood-based Diagnostic Tests **help**: i) **guide the choice of therapies**, ii) improve the patient's Quality of Life and its overall care during the treatment, iii) avoid ineffective, uncomfortable and expensive treatments, iv) reduce adverse effects and toxicities, and v) avoid treatment resistance.

MARKET & POSITIONING



"The cancer treatment process begins at diagnosis"
Medical Oncology Group of Australia

Since several years, different companies provide diagnostics capable to predict patient response to a treatment, in particular in cancer domain (breast, leukemia, melanoma...). Among the players present in this market, there are: Agendia, Genomic Health, Myriad Genetic, Qiagen, Roche...

The global **market for Companion Diagnostic tests in Oncology** (predictive diagnostics of response to a predetermined treatment) **is in steady growth**. It has been estimated at US\$3.5 billion in 2016, and is likely to reach US\$13.6 billion by 2025 (source: Transparency Market Research).

ACOBION's Blood-based Diagnostics are part of the market of predictive diagnostics of response to a predetermined treatment, particularly in a new generation of complex and high added value In-Vitro Diagnostics. Many of these tests are already on the market: Oncotype DX (Genomic Health), AlloMap (CareDX)... The price range is between 1,000€ and 3,500 € per test or analyze.

PANCREATIC CANCER

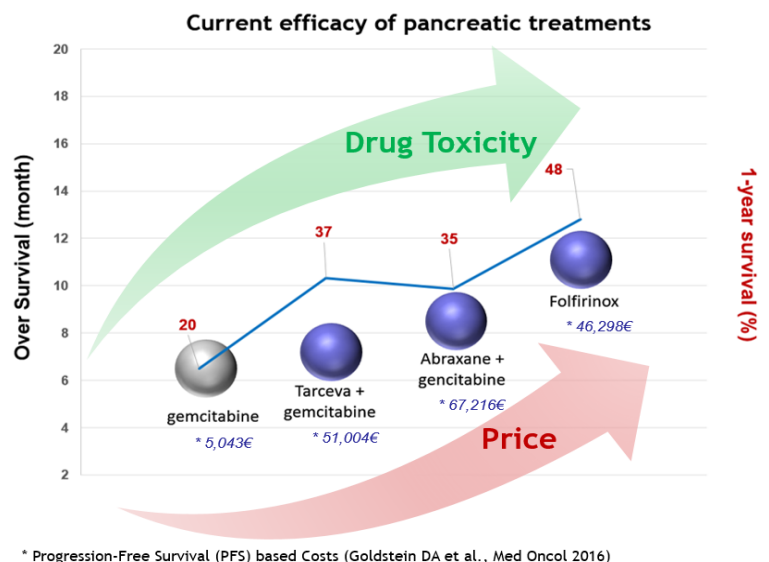
The number of new cases of pancreatic cancer is **steadily increasing** worldwide and should reach 418,451 new cases in 2020, amongst them 142,000 in Europe+USA (source: IARC/Globocan). In 2017, pancreatic cancer became the third leading cause of cancer-related death in the United States, ahead of breast cancer (source: PANCAN).

Pancreatic cancer is a "silent" disease, with no symptom at the beginning. During pancreatic cancer progression, Most of patients develop or will develop metastases. For them, chemotherapy is the only drug regimen today available. As few patients survive beyond 5 years, physicians describe the situation as "a race against time": they must quickly choose one of the available chemotherapies, hoping the chosen drug regimen will be the most effective or the most adapted.

More than € 5 Billion per year: It's the global amount of the estimated expenditures to treat pancreatic cancer (Europe + USA, source: Goldstein *et al*, Med Oncol 2016). Today, the standard treatment, sole or in combination, is Gemcitabine, a generic drug.

Gemcitabine is also the less expensive therapy:

- Gemcitabine (sole) : 5.043€
- Tarceva+Gemcitabine : 51.004€
- Abraxane+Gemcitabine : 67.216€
- Folfirinox : 46.298€



But, if certain therapies can increase the duration of survival on average, it has been observed **vastly different clinical responses** at individual level: the patient survival can vary from some weeks to several years.

GEMCITEST: Key-Elements & Benefits

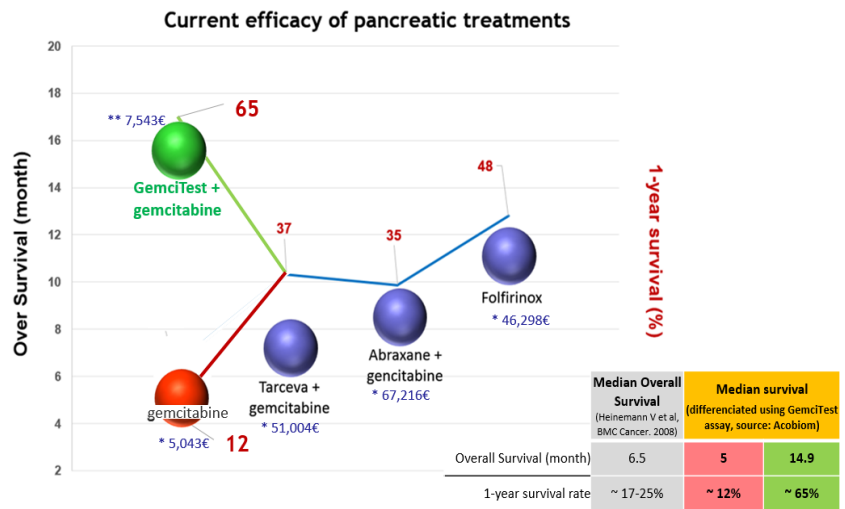
From clinical and biological data obtained in **2014** during a clinical study on Pancreatic Cancer (ClinicalTrials.gov: NCT00789633), **GemciTest is the 1st diagnostic test in precision medicine developed by ACOBIOM**. It's also the 1st diagnostic for the prediction of treatment response in pancreatic cancer.

From a blood sample, this diagnostic can predict the response of patient to gemcitabine, a generic drug and the less toxic chemotherapy among the available treatments.

Using GemciTest help guide prescription of Gemcitabine to the "good responder" patients, which involves a better quality of life for these patients during their treatment, and an increase of their survival duration.

GemciTest brings **Benefits**, amongst with:

- Avoiding the prescription of an inefficient or harmful treatment,
- Identifying the **37%** of patients most likely to benefit from this treatment, i.e. the patients who can benefit a better quality of life during their treatment and for who a **15-month** median survival is predicted;
- Avoiding the prescription of a more expensive treatment than Gemcitabine and so **saving costs estimating to more than € 0.5 billion** to health system (Europe+USA: cost saving estimated at 4,000€ per patient).



* Progression-Free Survival (PFS) based Costs (Goldstein DA et al., Med Oncol 2016)
 ** Gemcitabine PFS costs + GemciTest® costs

Moreover, ACOBIOM led a survey with clinicians and physicians (Europe+USA) at the end of 2017. The conclusion is remarkable and conclusive about their interest on the GemciTest: **~80% of patients diagnosed with pancreatic cancer will be tested!**

In pancreatic cancer treatment, no other Diagnostic showed such a predictable power, or even a nearby one!

GEMCITEST: On the market in 2019 and Revenues generated

The GemciTest will be on the market in 2019 in Europe and in 2020 in the USA.

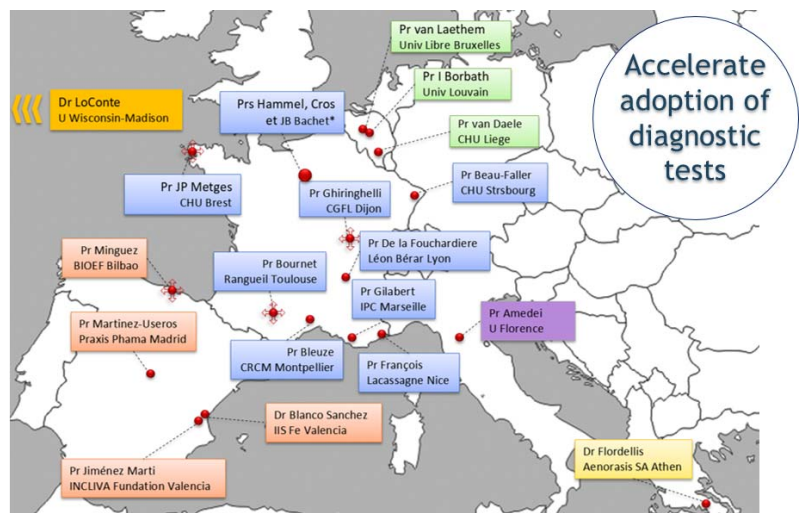
To reach this objective, a working plan has been well established, and specifies the regulatory and marketing steps to achieve in the next 12 to 24 months, in particularly: 1) 2018: Obtaining the CE mark,

2) 2019: Filing the dossier of this test to the American Health authorities (FDA).

This timing is quite short because:

- 1) the regulatory steps for filing are shorter for diagnostics than for drugs;
- 2) several steps have already be done: FDA pre-filing (pre-IDE), industrial process already established and operational...

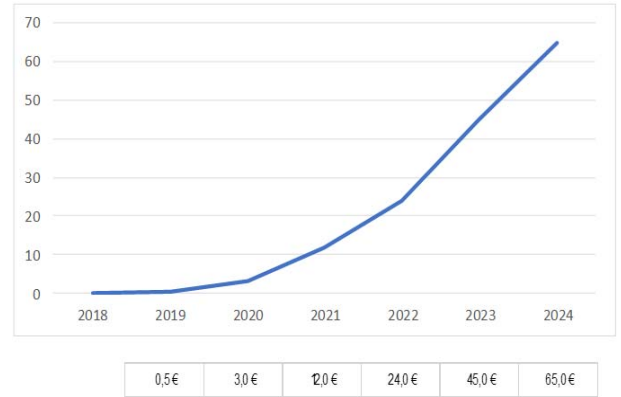
ACOBIOM gathered experts (regulatory, marketing), a network of 16 hospitals & clinics (Europe+USA), and Key Opinion Leaders to **accelerate the commercial adoption of the GemciTest by physicians and clinicians.**



By comparing the prices of other predictive Diagnostics in Oncology already on the market, **the price of a GemciTest analysis will be valued at 2,500€.**

Revenue projections (in Million €) have been established on the basis of similar and high added value tests, already on the market.

The marketing and commercial promotion of the GemciTest will be executed by Acobiom in Europe and a commercial partner in the USA.



AMBITION & PIPELINE

As soon as GemciTest will be on the market, Acobiom will develop complementary tests that could predict patient response to other therapies in pancreatic cancer treatment. These diagnostics will be developed and validated thanks to the procurement of blood samples from the network of 16 hospitals & clinics built by ACOBIOM, and in particular from the multi-centric clinical study managed by the "Centre de Lutte Contre le Cancer" (Dijon, France; GEMCIPANC, IDRCB N°: 2017-A01116-47).

Thanks to the funding by **BPIFRANCE** of some other research programs, ACOBIOM can present **an ambitious pipeline of Blood-based Diagnostics.**

Indication	Product	Commercialization - Predicted date of 1st sales											
		2018	2019	2020	2021	2022	2023	2024	2025	2026	2027		
Pancreatic Cancer	GemciTest Companion Diagnostic of Gemcitabine	EUROPE		USA		ASIA							
Pancreatic Cancer	Folftest Companion Diagnostic of Folfirinox					EUROPE		USA					
Pancreatic Cancer	Diagnostic/Prognostic of Resistance to actual treatments					EUROPE		USA		ASIA			
Breast Cancer	Diagnostic/Prognostic of Resistance to actual treatments					EUROPE		USA		ASIA			
Lung Cancer	Diagnostic/Prognostic of Resistance to actual treatments					EUROPE		USA		ASIA			
Alzheimer's disease	Masitest Companion Diagnostic of Masitinib					EUROPE		USA		ASIA			
Alzheimer's disease	Diagnostic/Prognostic of Disease Progression					EUROPE		USA		ASIA			

FINANCIAL FORECASTS

From 2019, Revenues will be generated by GemciTest sales.

From 2022, sales of Other Diagnostics will be added (cf pipeline above).

Meanwhile, ACOBIOM generates also revenues from services (genomics & bioinformatics).

To obtain more information about **ACOBIOM**, its financial forecasts on 2018-2023 period, and the seeking funds, please contact the company: investor@acobiom.com

ACOBIOM INCOME STATEMENT 2018-2023						
Million of Euros (M€)	2018	2019	2020	2021	2022	2023
GemciTest		0,5	3,0	12,0	24,0	48,0
Alzheimer's disease					9,3	18,6
Cancer - Other Diagnostics						3,7
SALES	0,2	0,5	3,0	12,0	33,3	70,6
EBITDA	-0,2	-1,5	0,3	8,5	26,3	58,3
NET PROFIT	-0,5	-1,9	0,0	4,8	15,3	34,2
CASH FLOW	-0,6	-1,5	0,3	5,2	15,7	34,6
PEOPLE	11	26	32	35	52	79

"What makes ACOBIOM unique?"



ACOBIOM's **Diagnostics** result from the combination of a **unique** scientific expertise, with a more than **20-year technical know-how** in **genomics & transcriptomics**, with proprietary **Bioinformatics** programs and algorithms, and a **proprietary Database (MaRS)**.

These Diagnostics are also the results of partnerships with several clinical centers from France, Europe and USA: BACAP consortium (group of 15 French clinical centers: Paris, Villejuif, Lyon, Toulouse, Montpellier...), the Dijon Cancer Center (France), the Carbone Cancer Center (Wisconsin, USA), clinical centers in Belgium, Italy, Spain, etc.