GEMCITEST™

The First Predictive Diagnostic Test in Pancreatic Cancer

Pancreatic Cancer: General background, diagnosis and needs

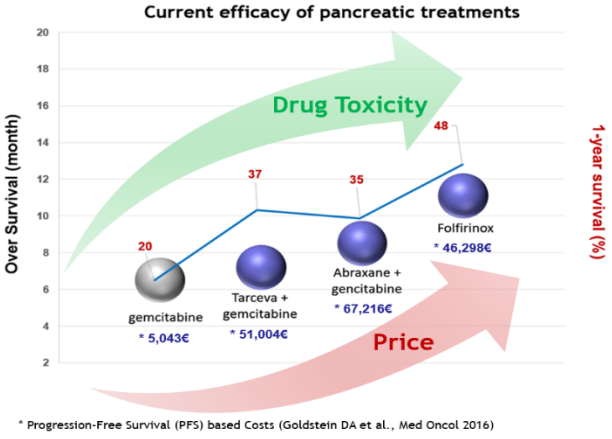
- Pancreatic cancer is now the 3rd leading cause of cancer-related death in the United States, and it is anticipated to become the 2nd around 2020 (sources: PANCAN, American Cancer Society Cancer).
- The number of new cases per year is still increasing and should reach 418,451 new cases in 2020 worldwide, amongst them 142,000 in Europe & USA (source: IARC/Globocan).
- After years of silent progression, 80% of patients diagnosed with pancreatic cancer have unresectable tumors. For those people, chemotherapy is the only first therapeutic option.

Pancreatic Cancer: Treatments

Pancreatic cancer has been treated for over a decade using a single-agent: gemcitabine, which had been the standard first-line treatment since 1997 (year of its approval by the United States Food and Drug Administration). Since that date, treatments, like Folfirinox or treatment regimens of gemcitabine plus erlotinib (Tarceva®) or plus nab-paclitaxel (Abraxane®), obtained approvals based on modest survival benefits compared with gemcitabine alone.

More than **€5,000 Million** per year: it's the estimated global cost of health expenditures associated to treatment of pancreatic cancer in Europe & USA (source: Goldstein et al, Med Oncol 2016).

The current standard treatment is still Gemcitabine, alone or in combination. Gemcitabine (alone; 5,043€) is also the less expensive therapy comparing to: Tarceva+Gemcitabine (51,004€), Abraxane+Gemcitabine (67,216€), Folfirinox (46,298€).



* Progression-Free Survival (PFS) based Costs (Goldstein DA et al., Med Oncol 2016)

GemciTest™ : A New In Vitro Diagnostic Assay based on a Blood RNA-based Signature

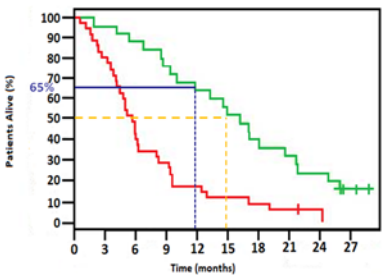
From clinical trials data and NGS data analyzed by its proprietary genomics & bioinformatics platform, Acobiom identified a Blood RNA-based signature able to predict patient response to gemcitabine in pancreatic cancer. Based on its blood biomarker signature, Acobiom developed a new In Vitro Diagnostic, GemciTest™ (quantitative Real-Time PCR assay) that has been shown to predict **3 types of responses** to a treatment with gemcitabine:

a) 3% of patients will suffer from acute toxicity and should avoid gemcitabine.
b) 60% of patients will not benefit from the treatment, with an average survival of 5 months.
c) **37%** of patients will **benefit** significantly from the treatment, with an average survival of **15 months**.

*: Data established from a multicentre, randomized, retrospective clinical phase III evaluation (ClinicalTrials.gov: NCT00789633)

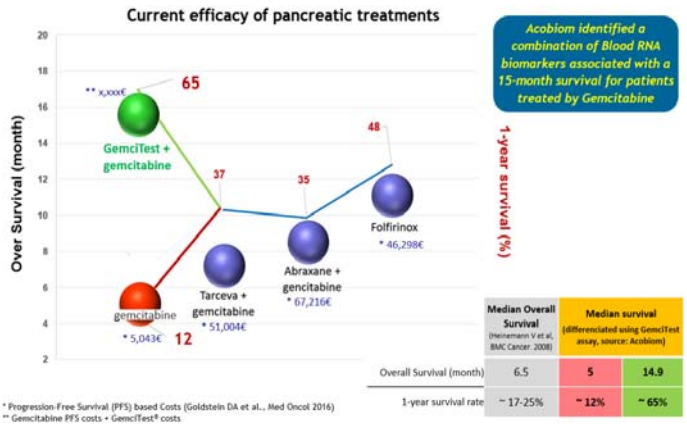
After 12 months of therapy, 65% of "good responders" (**green**) were still alive, compared to 12% of poor responders (**red**).

Until now, no other test has shown even remotely similar predictive power.



Analytical performance of the test (accuracy, reproducibility, repeatability) has been validated and reviewed as part of a pre-filing to the FDA.

QA/QC procedures, as well as the test protocol, have been finalized and can be transferred to testing laboratories within a few weeks. The manufacturing process has been tested and validated by a partner CMO.



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** Gemcitabine PFS costs + GemciTest® costs

***As a result, Gemcitest™* in combination with gemcitabine treatment can improve the overall survival rate and the quality of life of a sub-population of patients diagnosed with pancreatic cancer.**

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