IMODI
INNOVATIVE MODELS INITIATIVE AGAINST CANCER

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ZOOM on Artificial Intelligence and PDX mouse models: the winning combination

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ZOOM

Artificial Intelligence and PDX mouse models: the winning combination

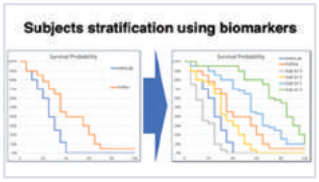


Figure 1 Identifying biomarkers for patient stratification

The growing number of anti-cancer drugs available at different stages of clinical development combined with the broadening potential use of combination therapy further complexifies the identification of indications for drug combinations.

Well characterized patient derived xenograft mouse models (PDX) as produced by the IMODI consortium, combined with Artificial Intelligence tools that can integrate and analyze the broad range of generated data can help address this challenge. PDX experiments can provide an opportunity to simulate a clinical assessment using multiple mice models.

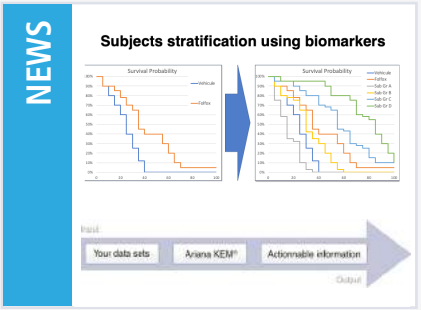
In this study, a PDX platform combined with Ariana Pharma's KEM® Artificial Intelligence data analytics, was used to simulate a clinical trial and identify biomarkers of response.

mRECIST response and survival of respectively 21 and 26 PDXs against Oxalipaltin combined with 5-Fluorouracil and folinic acid (folfox) were assessed against a placebo, simulating a clinical trial–like setting with 2 arms. Biomarkers of response and survival were identified using KEM®.

24 candidate biomarker genes were identified. Alone or combined, these biomarkers are significantly linked to an increase or decrease of the survival PDX, with the potential to be used as inclusion or exclusion biomarkers.

Read the article

NEWS



Ariana Pharma's Artificial Intelligence, KEM®

Ariana Pharma demonstrates use of Artificial Intelligence and PDX mouse models to simulate clinical trial and identify biomarkers of response for combination therapy.

In a collaboration with Oncodesign, Ariana's KEM was applied to a placebo-controlled experiment with PDX exposed to a combination therapy. KEM® demonstrated the ability of a combined PDX / Artificial Intelligence platform to simulate a clinical study in order to identify biomarkers of drug efficacy and synergy, thus fostering the design of precision medicine clinical trials.

Read the article

IMODI AROUND THE WORLD

MEET OUR EXPERTS

- **Modul-Bio will be present at the 2nd Biospecimen Research Symposium**: February 5-6, 2019 - Mercure Hotel MOA Berlin (booth #18)
- **Oncodesign (booth #2744) & Ariana Pharma will be present at the AACR:** March 29 - April 3, 2019 - Georgia World Congress Center - Atlanta, Georgia, USA

Where to meet our experts

Next >

FOCUS

Ariana Pharma is a leading digital health company focused on developing advanced therapeutic decision support systems.

Ariana's innovative clinical data analysis and diagnostic testing solutions help the healthcare sector better adapt patient treatments to individual biological characteristics.

Ariana's KEM® Artificial Intelligence technology enables personalization of therapies, improves the efficacy and safety of patient treatment, reduces risks and drug development costs, and accelerates time to market. With a growing number of successful therapeutic development applications, **KEM®** is the only FDA-reviewed technology that systematically explores combinations of biomarkers, producing more effective biomarker signatures for precision medicine.

At Ariana, we have a 15 years track record of increasing success rates in clinical trials, using our **advanced Artificial Intelligence** technology KEM®. We identify best patients that can benefit from a therapy and optimal Endpoints that capture its benefit.

Using our KEM® AI platform, we help our **clients identify best targets** and biomarkers combining multiple data sources, design their personalized medicine clinical trial, collect-omic data and identify best endpoints that capture impact of a given drug and best biomarkers that can help select responder patients and exclude non-responders, and present innovative and Fast Track approaches to the FDA.

Read detailed article

WEB-CATALOGUE

Follow-us: More than 140 models to assess the efficacy of your drug!

IMODI proposed a wide range of models to better understand the mechanism of oncology and develop customized treatments.
Discover our highly characterized collection of PDXs models:
+ Make better prediction of clinical outcome
+ Identify biomarker upon response to therapy to stratify patients
You will easily filter by cancer origin, patient gender, host animal strain to find the model you need.

Visit our webcatalogue

2013/01/01: Creation of the consortium

2013/09/01: Signature of the consortium agreement

2015/10/01: Signature of the 1st licence agreement

7 years: duration of the 1rst R&D phase

150 Researchers

6 SMEs

4 pharmaceutical industries

8 Academic institutions

IMODI at a glance

The French IMODI (Innovative MODels Initiative) consortium is dedicated to the development, the characterization and the commercialization of new preclinical models in oncology.

IMODI is a public-private consortium of 18 partners pooling their ressources for the development of more valuable models of cancer in order to decrease the attrition rate of clinical development of novel anti-cancer agents.

Science and technology developments:

- Developing PDX models and cellular assays
- Modelling the human tumour microenvironment in mice
- Studying the relationship between microbiota and cancer

IMODI's partners

Ariana · MERIEUX NutriSciences · cti biotech · Modul-Bio · Oncodesign · Oncomedics · IPSEN · Pierre Fabre · SANOFI · Servier Oncology · Inserm · CNRS · Les Hôpitaux Universitaires de Strasbourg · Hôpitaux de Toulouse · Centre Léon Bérard · Synergie Cancer · CGFL · Assistance Publique Hôpitaux de Paris · Biovalley France · Alsace Biotherapies · LyonBiopole · medicen · Cancer-Bio-Santé · bpifrance