Therapeutic management of metastatic breast cancers is drastically changing. Recent evidence from extensive prospective clinical studies has demonstrated the efficacy of treatments combining endocrine therapies and other targeted therapies, which now become standard treatments.

Among these targeted therapies, the PI3K-AKT-mTOR pathway inhibition is the treatment of choice in a progressive disease under endocrine therapy. More recently, the association with CDK4/6 inhibitors is progressively becoming a treatment of choice for hormone-dependent metastatic cancers.

Despite recent advances in precision medicine, the known activating mutations of PIK3CA gene, as well as CCND1 gene amplifications or p16 gene losses, are not associated with response to treatments using inhibitors of these pathways. Moreover, subtypes of breast tumors that do not express hormone receptors and HER2 protein (triple negative subtype), are challenging tumors as endocrine and targeted therapies are non effective.

For these reasons, it is mandatory to identify new targets and predictive biomarkers to better select patients and thus prescribe adapted and targeted therapies.

Servier, Pierre Fabre and Sanofi, 3 out of 4 major pharmaceutical companies involved in the IMODI consortium, have a new collection of PDX models to support their translational breast cancer research. This new collection represents 40 established breast PDX models reflecting the 4 major molecular clinical subtypes among which 37% are triple negative, 33% are Luminal B HER2-, 22% are Luminal B HER2+ and 8% HER2+. All PDX models are well-characterized and annotated under harmonized procedures by the IMODI consortium.

Dr Séverine Tabone-Eglinger (Leon Berard clinical center) will present Innovative and predictive models against breast cancer. Minisymposium session Models for Treatment Resistance and Drug Discovery at the AACR Annual meeting (Tuesday Apr 4, 2017 3:00 PM).

Dr Juan Iovanna (Inserm U1068, Marseille, France) will present a poster of IMODI initiative: a novel holistic and integrative approach with patient-derived tumor models against pancreatic cancer: poster presentation in the tumor biology poster session, abstract #3846 at the AACR Annual meeting (Tuesday Apr 4, 2017 8:00 AM).
The Leon Berard Clinical Center: Research and Innovation for better Cancer Patient Care

The Leon Berard Clinical Center (CLB) is an integrated cancer research center relying on the excellence of the basic research conducted at the Cancer Research Center in Lyon (CRCL), a high quality translational research labeled by the SIRIC program of INCa (LYric) and an efficient clinical research labelled ISO 9001 since July 2013. The translational research department gathers technological platforms, such as the biological resource center - certified NFS 96 900, a pathology department dedicated to research, the cancer genomics platform, the immunomonitoring platform and the ex-vivo platform, which all contribute to accelerate the transfer of innovations of its research programs to the clinic.

The CLB is one of the founders, along with Claude Bernard University, INSERM and the Hospices Civils de Lyon, of the scientific cooperation foundation created in 2007, Synergie Lyon Cancer (SLC). Through its missions, the SLC Foundation supports research activity carried out in Lyon in the field of tumor escape and therapeutic targeting. It is composed of three technological platforms: 1) the laboratory of experimental models (LMT) dedicated to establish panels of relevant tumor models in oncology; 2) the bioinformatics platform Gilles Thomas with recognized expertise in Whole Genome Sequencing; 3) the Drug Discovery and Development Center, which promotes the development of molecules derived from the basic research of the Leon Berard Clinical Center or the CRCL.

(Read full article on IMODI website)

A new web catalogue for IMODI products

The IMODI website offers you a free web-catalogue of products developed by the consortium.
Discover more details about our 107 new models in the beta version of the web catalogue. Next version will include more information about cell lines, ex vivo assays and bio-collection. The IMODI catalogue is daily optimized and updated to offer you more and efficient services.

What about IMODI

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 resources 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