

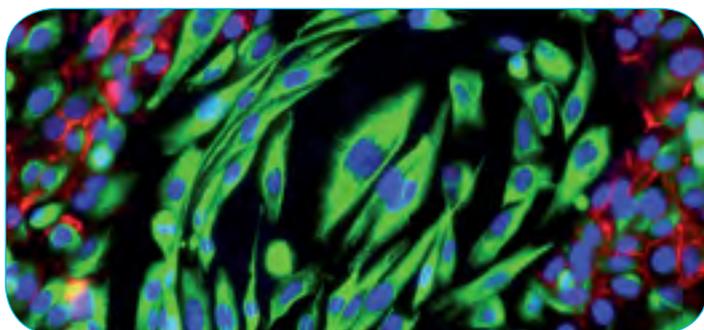
The theme-based multi-organization institute for Cancer (ITMO Cancer) aims to federate all research teams working on cancer diseases, regardless of their associated supervisory bodies. ITMO Cancer thus aims to propose and implement concrete actions to improve the performance and competitiveness of French research, to ensure proper coordination between all bodies and

institutions involved in cancer research, to lead consultation, and facilitate interdisciplinary exchanges in the cancer community.

ITMO CANCER STRATEGIC CHALLENGES

Multidisciplinary Basic Research

- ▶ Studying the role of the non-coding genome in tumorigenesis
- ▶ Developing knowledge of the protein and metabolic characteristics of cancer cells and their environment
- ▶ Pursuing understanding of cancer mechanisms, adaptive tumour dynamics, genetic and non-genetic plasticity
- ▶ Deciphering and understanding the role of micro-environment, describing the early stages of the anti-tumour immune response
- ▶ Understanding dormancy and resistance mechanisms
- ▶ Pursuing identification of risk factors: Genetics - Environment - Nutrition
- ▶ Studying cancer through evolution, including early, pre-neoplastic and possibly reversible stages.



Emergence of mesenchymal tumor cells (in green) following the transformation of mammary epithelial cells (in red)
Alain Puisieux © Inserm

The forces involved in the field

800 research teams

6,000 researchers, lecturers, engineers and technicians from universities, hospitals, EPST and institutes

44,000 articles during 2014 to 2018 period
(source Cellule Mesures, indicateurs, bibliométrie - Inserm 2019)

7th world rank of publications in the field
(source Cellule Mesures, indicateurs, bibliométrie - Inserm 2019)

3th world rank of TOP 1% highly cited papers
(source Cellule Mesures, indicateurs, bibliométrie - Inserm 2019)

ITMO scientific experts

Executive team

Director: Christine CHOMIENNE (Inserm, INCa)

Director: Yvan de LAUNOIT (CNRS)

Assistante Director: Muriel ALTABEF (Aviesan)

Expert committee

- ▶ Corinne ALBIGES-RIZO (CNRS)
- ▶ Sébastien BENZEKRY (INRIA)
- ▶ David BERNARD (CNRS)
- ▶ Véronique BLANC (Servier)
- ▶ Irène BUVAT-GUILLEMET (CEA-CNRS)
- ▶ Jacqueline CLAVEL (Inserm)
- ▶ Laurent DELVA (Inserm)
- ▶ Alain EYCHENE (Inserm-Institut Curie)
- ▶ Annick HAREL-BELLAN (CEA-CNRS)
- ▶ Daniel OLIVE (AP-Inserm)
- ▶ Fabrice PIERRE (INRA)
- ▶ Nicole RASCLE (Inserm)
- ▶ Claude SARDET (CNRS)
- ▶ Ariel SAVINA (Roche)
- ▶ Eric SOLARY (Gustave Roussy)
- ▶ Sophie TARTARE-DECKERT (Inserm)

Translational and Clinical Research

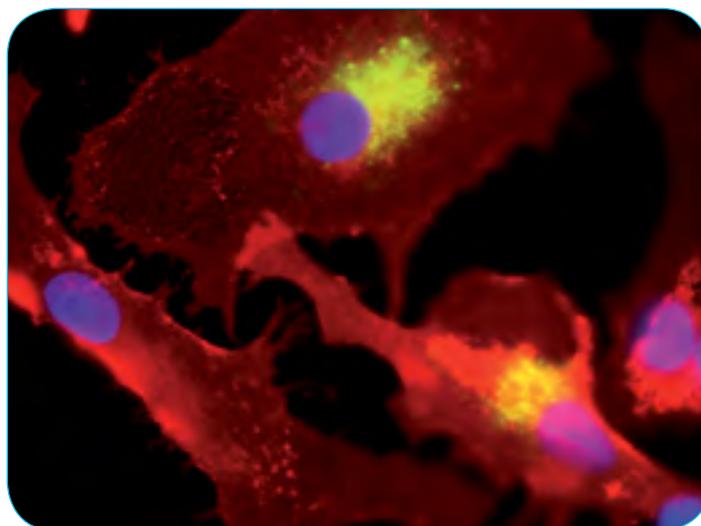
- ▶ Putting the patient as a pivotal actor of research
- ▶ Developing and diversifying animal models and their comparison; refining preclinical models to validate therapies and understand the side effects
- ▶ Developing alternative models
- ▶ Facilitating the drug design and repositioning of the old molecules
- ▶ Promoting new biomarkers for early diagnosis and follow-up (prediction of relapse/resistance, toxicity of treatments including immunotherapy)
- ▶ Developing sensitive, precise and reproducible technologies
- ▶ Developing stratification methods to predict clinical benefit and to select patients responding to treatment.

Promotion and support of research work

- ▶ Producing quality and reproducible data and results, with emphasis on the quality of information and its representativeness rather than on number
- ▶ Highlighting researchers work on the basis of its quality and utility rather than its quantity
- ▶ Promoting transdisciplinary training at doctoral school level, encouraging interdisciplinary vocations, developing continuous training dedicated to cancer research.

Download full Strategic Challenges on:

<https://itcancer.aviesan.fr>



Fragments of cancer cells internalized by dendritic cell.
Jenny Valladeau © Inserm