

**EXPLICITYTE AND INSTITUT BERGONIE,
PARTNERS FOR COMPREHENSIVE TRANSLATIONAL RESEARCH PROGRAMS IN
IMMUNO-ONCOLOGY**

Bordeaux, FRANCE, March 24, 2019: **Explicity** and **Institut Bergonié**, have entered into a collaboration to conjointly drive a translational research program aiming at identifying resistance mechanisms to immune checkpoint inhibitors in cancer patients.

Over the last few years, therapeutic options that mobilize the immune system against cancer have led to breakthroughs for a variety of malignancies. However, limited rates of response together with the occurrence of immune-related adverse events warrant the evaluation of resistance mechanisms to finally identify **i)** valuable response/resistance predictive biomarkers and **ii)** innovative combination therapeutic strategies.

This prospective, multicentric study, includes cancer patients treated with PD1 or PD-L1 antagonists as per market authorization. 200 patients will be enrolled with a primary objective to identify an integrated predictive signature of checkpoint inhibitor efficacy. Secondary endpoints include both identification of primary and secondary resistance mechanisms, and prediction of adverse events. All patients will undergo sequential tumor, blood and feces sampling collection at baseline, after 2 cycles of treatment and at progression. Tumor biopsy will be analyzed through **i)** comprehensive genetic (exome seq and RNA seq), **ii)** quantitative multiplexed immunohistochemistry, and **iii)** proteomic profiling (mass spectrometry). In parallel, blood samples will be assessed for **i)** plasma metabolomics (LC-High Resolutive Mass Spectrometry), **ii)** immunophenotyping (PBMC flow cytometry phenotyping), and **iii)** ex vivo functional response characterization upon immunotherapy. Results from all these analyses will be correlated with clinical outcome as well as radiomics features.

«Thanks to the combination of Institut Bergonié and Explicity expertises, i.e. early phase clinical trials and capacity of sequential blood and tumor sampling combined with appropriate and multiparametric experimental platforms management, we are able to conjointly drive this innovative translational research program that will certainly generate opportunities for Explicity and will pave the way for similar approaches in the future thus strongly supporting our service activities».

Dr Alban Bessede, CEO, Explicity / Immusmol SAS

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"Many researchers have been working to validate single predictive biomarkers of efficacy of immune checkpoint inhibitors. Instead, we are convinced that a multiparametric and integrated approach can fuel new discoveries spanning from the identification of predictive tools to the consideration of innovative therapeutic combination strategies. To this end, we want to create a research consortium with patients as partners, and Explicyte as a valuable analytical platform to ultimately help current and future generations of patients."

Pr Antoine ITALIANO, Head of Early Phase Trials Unit, Institut Bergonié

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About Explicyte

Explicyte immuno-oncology offers preclinical contract research services for cancer immunotherapy drug discovery. Its translational service extends from cell-based assays - suitable for novel immunotherapeutics screening and their related mechanism(s) of action (MoA) delineation - to preclinical *in vivo* studies. Using well-characterized syngeneic mouse tumor models, we offer to explore the anti-tumor immune response to innovative immunotherapies as well as its underlying MoA, through an evolutive and multi-technology platform so as to best meet Sponsor's expectations. Hence, besides its service activities, Explicyte is dedicated to the permanent development of innovative models to serve drug development programs.

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About Institut Bergonié

Institut Bergonié is labelled by the French National Cancer Institute as a reference center for early-phase clinical trials (CLIP2) in oncology and a national referral center for the diagnosis and management of patients with sarcomas. Between 2015 and 2018, the Early Phase Clinical Trials unit led by Pr Antoine ITALIANO enabled more than 3,000 patients with advanced cancer to benefit from an early phase clinical trial, making the Institut Bergonié a European leader in the field of therapeutic innovation. The Early Phase Clinical Trials Unit supports industry-sponsored research in patients with all types of solid tumors and haematological cancers.

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