ACOBIOM, partner of the Montpellier University Hospital and its clinical research program MeDIAGSTOLE on heart failure

The MeDIAGSTOLE project aims to develop diagnostic and prognostic tools for left ventricular heart failure with preserved ejection fraction (HF/pEF), a pathology that is difficult to diagnose and clinically manage in the absence of targeted treatment. In this context, the University Hospital of Montpellier and ACOBIOM decided to collaborate in order to identify biomarkers associated with this pathology, and thus to participate in the implementation of personalized medicine for patients suffering from this type of heart failure (HF/pEF).

Montpellier, France, September 21, 2021. ACOBIOM, a company specialized in the identification of biomarkers and the development of innovative diagnostics, announces today the signature of a partnership with the Montpellier University Hospital concerning the MeDIAGSTOLE clinical research program.

This project (NCT04699890) aims to develop diagnostic tools for left ventricular heart failure with preserved ejection fraction (HF/pEF) and to participate in the implementation of personalized medicine for patients suffering from this form of heart failure (HF/pEF), which represents 50% of the cases of left ventricular heart failure.

Indeed, heart failure with preserved ejection fraction (HF/pEF) is a difficult condition to diagnose and manage clinically in the absence of targeted therapy.

The HF/pEF affects the elderly population with comorbidities such as hypertension, obesity, anemia, and atrial fibrillation.

In the absence of specific biological markers or biomarkers, its diagnosis is based on cardiac imaging, echocardiography, or catheterization to measure altered cardiac relaxation and filling. Different from heart failure with reduced ejection fraction (HF/rEF), this condition has strong medical and economic impacts, including repeated hospitalizations (Braunwald, 2015; Ponikowski et al., 2016).

The identification of new genetic and/or cellular biomarkers specific to HF/pEF, the focus of the MeDIAGSTOLE clinical research program, would be an important innovation for the management of patients with this subtype of heart failure.

Within the framework of this clinical research program, promoted by the University Hospital of Montpellier and led by the cardiology department of Pr Roubille, the University Hospital decided to entrust ACOBIOM with the molecular analyses by sequencing of blood samples from patients admitted to the University Hospital. These analyses will be done using the RNA-Seq technique associated with the company's bioinformatics and biostatistics platform, the fruit of 20 years of research and know-how in RNA analysis. This work will make it possible to identify RNA biomarkers (coding and non-coding) specific to heart failure, to develop a future diagnosis and the implementation of personalized medicine for patients suffering from this type of heart failure.

This partnership between the cardiology department of the Montpellier University Hospital and ACOBIOM follows previous scientific collaborations that aimed at identifying patients with left ventricular heart failure using a combination of current biochemical markers coupled with clinical data. Thanks to the company's expertise in data processing and its know-how in machine-learning (artificial intelligence), a computer classification tool has been developed to diagnose heart failure with preserved ejection fraction (HF/pEF). A scientific article presenting this work is currently being published.

About ACOBIOM

ACOBIOM is a biotechnology company specializing in the discovery of biological markers (biomarkers) and the development of innovative diagnostics for applications in personalized medicine or precision medicine. Precision medicine allows to choose a treatment based on the analysis of certain biomarkers in order to obtain a better therapeutic effectiveness, to limit the side effects of a treatment and to ensure a better quality of life for the patient. The diagnostics developed by ACOBIOM respond to these needs and support medical teams in choosing the most effective treatment best suited to each patient's genomic profile. These diagnostics are developed from biomarkers, identified upstream by the company's scientific team, which has more than 20 years of expertise in the study of gene expression and a technological platform combining genomics, bioinformatics and biostatistics (data science). Founded in 1999, Acobiom is located in the Euromedicine Biopole in Montpellier (France), and is a member of the regional health clusters.

Web: https://www.acobiom.com

About University Hospital of Montpellier

The University Hospital of Montpellier has as the following fundamental missions: care, teaching, research, but also prevention, health education and the fight against social exclusion.

It comprises 8 establishments and employs more than 11,000 people, including 1,300 doctors. It is the 7th largest university hospital in France, with 2,776 beds and places divided into 12 university hospital divisions. A true center of excellence and the department's largest employer, it handles more than 220,000 hospitalizations per year, more than 500 consultations and accompanies 3,600 births. Its annual budget amounts to more than 800 million of euros.

It is organized around 12 university hospital poles including all medical and surgical specialties and spread over several geographical sites in the northwest of Montpellier:

- Lapeyronie (Bones and joints, Emergencies)
- Arnaud de Villeneuve (Women, children, heart-lungs)
- La Colombière, Balmes (Psychiatry, Gerontology)
- Bénech (Administration, Finance,...)
- Saint-Eloi (Digestive)
- Gui de Chauliac (Head and neck)
-Euromedecine (Logistics)

The University Hospital of Montpellier structures and coordinates its research, innovation and valorization activities around a Research and Innovation Department (DRI) and a Clinical Research and Innovation Delegation (DRCI). Bringing together medical, scientific, technical and administrative personnel, these organizations ensure the daily steering, coordination and management of research projects as well as their valorization.

Web: www.chu-montpellier.fr