



## **Sanofi and the University of Bordeaux collaborate on Muscle Wasting Diseases in Frail Elderly**

*- This research collaboration aims to improve mobility and independence in frail elderly -*

**Paris and Bordeaux – February 16th, 2016 - Sanofi and the University of Bordeaux announced today that they have entered into a research collaboration with the aim of identifying compounds that may improve mitochondrial function in age-related loss of muscle strength.**

Mitochondria<sup>(1)</sup> provide most of the cellular energy needed to convert nutrients into a fuel usable by every cell. Mitochondrial activity deteriorates with age, and mitochondrial dysfunction is an important factor for the decline in muscle function in frail elderly. The age-related muscle loss is associated with a reduction of physical strength, and contributes to an increase in incidence of adverse outcomes including falls and fractures, decreased ability to recover from injury, and disability. These factors contribute to greater hospital admissions, higher use of healthcare services and increased mortality. Helping to improve the physical function and the independence of older individuals will contribute to preserve their quality of life and reduce healthcare costs. This is a major challenge especially in ageing societies. In Europe people over the age of 65 represents 18,5%<sup>(2)</sup> of the population and the prevalence of frailty in this age group is estimated at 17%<sup>(3)</sup>.

So far there is no marketed therapeutic solution available to restore this deficiency. The identified mitochondrial enhancers are expected to improve bioenergetic capacity of aged skeletal muscle, and thereby improve mobility and independence of frail elderly.

Sanofi and the University of Bordeaux will first collaborate actively to develop a new method to better monitor mitochondrial function. Given the complexity of mitochondrial physiology, this collaboration will favor new approaches relying on multi-parameter phenotypic screens in living human cells. These new tests will then be used for drug screening in order to identify mitochondrial modulators.

*“I am convinced that such a collaborative effort for the discovery of mitochondrial activators and modulators will open a new paradigm in the therapeutic approach of age related diseases”, said Dr. Rodrigue Rossignol, INSERM Research Director at the University of Bordeaux (U1211, rare diseases – metabolism and genetics)*

*“This collaboration with an academic research team of outstanding scientific expertise will help Sanofi conduct innovative research in muscle wasting diseases and accelerate the chance to address patients unmet medical needs in the area”, said Marc Bonnefoi, Vice President R&D France, Sanofi.*

At Sanofi, the project will be conducted by the Strasbourg-based Open Innovation Access Platform and by the Chronic Inflammatory Diseases Unit based in Frankfurt.

- (1) Ageing Research Reviews 24 (2015) 304-327
- (2) Eurostat source – 2014 data
- (3) Clin Geriatr Med 2011 Feb: 27(1):1-15

### **About the University of Bordeaux**

With nearly 52,000 students, 3,100 researchers and teachers, and 2,600 staff members, the University of Bordeaux is one of the leading French public research and higher education institutions, located in a dynamic and culturally rich, fast-developing region.

Ranked among the top universities in France, the University of Bordeaux is renowned for the quality of its academic courses and research. It is a multi-disciplinary, research-focused institution with a strong ambition to develop as a leading, international campus. The University of Bordeaux is leading an ambitious, competitive development program in partnership with local higher education institutes and national research organizations, in order to promote Bordeaux as a “Campus of Excellence”.

### **About Sanofi**

Sanofi, a global healthcare leader, discovers, develops and distributes therapeutic solutions focused on patients' needs. Sanofi has core strengths in diabetes solutions, human vaccines, innovative drugs, consumer healthcare, emerging markets, animal health and Genzyme.

<http://innovation-accessplatform.sanofi.com/en>  
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