

## Quantum Genomics Presents Results from Phase IIb QUORUM Study of Firibastat in Heart Failure at the European Society of Cardiology Meeting

- Firibastat is as efficient as the current standard of care (ramipril) in preventing the degradation of the left ventricular ejection fraction (primary endpoint) after myocardial infarction in full study population
- Firibastat demonstrated better efficacy compared to ramipril in severe patients with low ejection fraction
- Firibastat improved blood pressure profile in study population
- Good safety profile observed from two doses of firibastat

Quantum Genomics (Euronext Growth - FR0011648971 - ALQGC), a biopharmaceutical company specializing in developing a new drug class that directly targets the brain to treat difficult-to-treat and resistant hypertension and heart failure, today announced results of the Phase IIb QUORUM study were presented by Prof. Gilles Montalescot (Paris) on August 27, 2021 during the 2021 scientific sessions of the European Society of Cardiology (ESC).

*"the QUORUM study demonstrates the efficacy and good safety profile of firibastat. These good results will be decisive for the signing of new partnerships and encouraging for the continued advancement of firibastat in clinical trials",* declared Jean-Philippe Milon, CEO of Quantum Genomics.

*"Today, based on the results of QUORUM, we know that the effectiveness of firibastat on the entire study population is of the same level as of the most effective molecule in post myocardial infarction to date, ramipril,"* said Dr. Bruno Besse, Medical Director of Quantum Genomics. *"In severe patients with an ejection fraction less than 50%, firibastat appears to be more effective than ramipril. On the other hand, QUORUM shows that firibastat improves the blood pressure profile. Substantial reduction of blood pressure with ACE inhibitors such as ramipril, the reference treatment, is a limiting factor of current management of severe patients. For this reason, QUORUM's phase IIb results pave the way for a phase III clinical study in severe patients whose protocol will be finalized with a selected partner pharmaceutical company."*

Highlights from the phase IIb QUORUM study are included below:

### **Better efficacy of firibastat than ramipril in severe patients**

295 patients were enrolled in the study within 24 hours of a first myocardial infarction. After 12 weeks of treatment, the left ventricular ejection fraction evaluated by cardiac MRI, increased from 53 to 59% in the firibastat 100 mg twice daily group, from 51 to 58% in the firibastat 500 mg twice daily group and 50 to 57% in the ramipril 5 mg twice daily control group; these strata encompassing the entire study population. The difference between the 3 groups was not statistically significant.

In the subgroup of severe patients with an ejection fraction less than 50%, the ejection fraction increased by  $5.32 \pm 1.67\%$  under firibastat 500 mg, and by  $3.51 \pm 1.64\%$  under ramipril.

**Only firibastat improved the patients' blood pressure profile, especially in severe patients**

Blood pressure did not limit increasing doses of firibastat to reach the target dose, while 32.5% of patients failed to reach the target dose with ramipril.

**Good safety profile**

Firibastat was safe and well tolerated. The most common side effects were skin reactions, which occurred in 4% of cases with firibastat 100 mg BID, 10% with firibastat 500 mg BID and 5% with ramipril (including angioedema, a well-known potentially severe side effect of ramipril). Renal impairment or hyperkalemia has not been observed with firibastat.

Prof. Gilles Montalescot, principal investigator of the study added: *“The QUORUM study is a very important study, being one of the rare studies conducted in post-infarction since the advent of primary angioplasty, with a strict methodology (randomized, double-blind, fractional ejection evaluated by cardiac MRI with centralized reading). Firibastat has not been compared with a placebo but with ramipril, which is the gold standard treatment, and is very effective in this pathology. Even if in this study, firibastat at two doses of 100 mg and 500 mg twice a day did not demonstrate superiority over ramipril, having a new drug class with good hemodynamic safety profile to treat severe patients would be a real medical breakthrough. We can see that the maximum dose was reached more easily and more frequently with firibastat than with ramipril.”*

**About QUORUM**

QUORUM (NCT03715998) is a phase IIb, European, multicenter, randomized, double-blind study comparing the efficacy and safety of two doses of firibastat with a reference treatment with ramipril, in the prevention of left ventricular dysfunction after acute myocardial infarction. 295 patients recruited within 24 hours after a first prior myocardial infarction were randomized into 3 groups and received for 12 weeks either firibastat 100 mg twice daily (after two weeks at 50 mg twice daily) or firibastat 500 mg twice daily (after two weeks at 250 mg twice daily) or standard treatment (ramipril 5 mg twice daily after two weeks at 2.5 mg twice daily). The primary outcome measure was the change from baseline in the left ventricular ejection fraction, assessed by cardiac MRI (centralized reading). Secondary endpoints were changes in other MRI parameters, cardiovascular events, biomarkers, and clinical and laboratory tolerance.

**About Firibastat**

Firibastat is the first drug candidate in a new class of therapeutic agents called BAPAIs (Brain Aminopeptidase A Inhibitors). Firibastat is a prodrug that releases EC33, a specific and selective inhibitor of aminopeptidase A in the brain, thereby preventing the production of angiotensin III in the brain.

### About Quantum Genomics

Quantum Genomics is a biopharmaceutical company specializing in the development of a new class of cardiovascular medications based on brain aminopeptidase A inhibition (BAPAI). Quantum Genomics is the only company in the world exploring this innovative approach that directly targets the brain. The company relies on 20 years of academic research from the Paris-Descartes University and the laboratory directed by Dr. Catherine Llorens-Cortes at the Collège de France (French National Institute of Health and Medical Research (INSERM)/ the Scientific Centre for National Research (CNRS)). The goal of Quantum Genomics is to develop innovative treatments for complicated, or even resistant, cases of hypertension (around 30% of patients have poor control of their condition or receive ineffective treatment) and for heart failure (one in two patients diagnosed with severe heart failure dies within five years).



Based in Paris and New York, Quantum Genomics is listed on the Euronext Growth exchange in Paris (FR0011648971-ALQGC) and trades on the OTCQX Best Market in the United States (symbol: QNNTF). For more information, please visit [www.quantum-genomics.com](http://www.quantum-genomics.com), or follow us on [Twitter](#) and [LinkedIn](#)

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