
Press Release

YSOPIA Bioscience announces first signs of biological activity from Phase I analysis of Xla1, its biotherapy targeting obesity and related metabolic disorders

- **Positive impacts of Xla1 biotherapy on two major obesity-associated metabolic markers in overweight volunteers: cholesterol levels and insulin resistance.**
- **Xla1's excellent safety and tolerability profile demonstrated.**
- **Xla1 is an innovative biotherapy based on the properties of a selected bacterial strain of *Christensenella minuta*, which is naturally present in healthy human gut microbiome.**
- **CAUSALITY is the first clinical study in the world to assess Xla1's therapeutic potential in obesity and associated metabolic abnormalities.**

Bordeaux, France, December 02nd, 2021 – **YSOPIA Bioscience**, a French clinical stage biotechnology company specializing in the research and development of innovative biotherapies using the properties of keystone bacterial strains of the gut microbiome, today announced that the analysis of data from its Phase I study, CAUSALITY, has revealed the first results of the Xla1 biotherapy on the reduction of LDL cholesterol and on HOMA-IR, a marker of insulin resistance, which are two important markers of metabolically-unhealthy obesity.

CAUSALITY evaluated the safety and tolerability of Xla1, the first oral biotherapy based on a selected live bacterial strain of *Christensenella minuta*, targeting obesity and associated metabolic abnormalities.

Conducted in the United States, CAUSALITY enrolled a total of 38 volunteers in two separate groups, one comprising 8 healthy volunteers and the other comprising 30 obese or overweight volunteers. The randomized, placebo-controlled double-blind protocol consisted in the daily oral administration of the Xla1 drug candidate in the form of gastro-resistant capsules for 12 weeks followed by 4 weeks of monitoring without treatment.

The results of the CAUSALITY study announced in July 2021 achieved the primary endpoint. They demonstrated the excellent safety and tolerability profile of the Xla1 drug candidate, with no serious adverse effects reported in any of the volunteers.

The in-depth analysis of these results has identified Xla1's impact on two markers of common metabolic abnormalities in people with obesity: LDL cholesterol and insulin resistance.

A significant reduction in the level of circulating LDL cholesterol (bad cholesterol) was observed, as well as an improvement of the HDL/LDL cholesterol ratio (HDL being the good cholesterol), which is a predictive marker of cardiovascular risk factors. Xla1's significant positive effects on criteria associated with insulin resistance were also observed.

These results suggest that, when used alongside standard treatments for obesity and associated metabolic abnormalities, Xla1 could help strengthening the impact of these treatments and reducing the risks of developing more severe metabolic conditions associated with obesity (such as type 2 diabetes)

Lastly, almost half of the volunteers treated with Xla1 showed presence of the bacteria in their gut microbiome at the end of the CAUSALITY study, even after the 4 weeks of monitoring with no additional treatment.

"This initial biological activity data, observed in a study initially focusing on the safety of our treatment, is more than encouraging for the longer-term development of our innovative Xla1 biotherapy", said Frédéric Elustondo, YSOPIA Bioscience's Senior Director of Operations and head of the CAUSALITY study. "This first clinical evidence is a world first highlighting many reasons to believe in the efficacy of a Christensenella-based biotherapy for the treatment of obesity. This data will help us optimize the protocol of the upcoming Phase II study. We are very keen and eager to continue studying Xla1's effects on the gut microbiome and its impact in the treatment of obesity and associated metabolic disorders."

About obesity:

Obesity is the most common worldwide health issue with over 650 million people being reported as suffering from obesity. Overweight and obesity are recognized by the World Health Organization as the fifth highest risk of death in the world. Projections by the World Obesity Federation indicate that by 2025, more than one billion people worldwide will be obese. Owing to their condition, obese patients are at an elevated risk for developing other health related problems such as type 2 diabetes, hypertension, dyslipidemia, cardiovascular diseases, and many others. Moreover, people with obesity may suffer from social as well as psychological impairments.

About YSOPIA Bioscience – www.ysopia.bio

YSOPIA Bioscience is a French clinical stage biotech company specializing in the research and development of therapeutic innovations harnessing the potential of the gut microbiome.

YSOPIA develops groundbreaking biotherapies using single-strain keystone bacteria. The Company has successfully completed a Phase 1 clinical trial evaluating its drug-candidate, Xla1, in people suffering from obesity and associated metabolic disorders. YSOPIA's portfolio also includes additional innovative programs in several indications with substantial unmet medical needs, such as Crohn's disease, mood disorders or oncology.

Supported by leading venture capital investors, such as Seventure Partners, and family offices, YSOPIA Bioscience has established collaborative projects worldwide with renowned scientific institutions and academic experts to maintain the highest standards in the development of its innovative biotherapeutics.

YSOPIA Bioscience is an active member of the Alliance Promotion Microbiote, an initiative bringing together many industrial groups, competitiveness clusters and research organizations to promote the microbiota sector and to position France as a European leader in the field.

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Medias contacts:

NewCap

Medias Relations

Arthur Rouillé
arouille@newcap.fr
+33 (0)1 44 71 00 15

YSOPIA Bioscience,
Corporate Communication

Caroline Bernard
caroline.bernard@ysopia.bio