

EUK-LPR: Eukarÿs confirms excellent preclinical performance of its first synthetic gene therapy

Evry, jeudi 14 novembre 2019,

Eukarÿs today announces the excellent preclinical performance of its first synthetic gene therapy treatment. This treatment called EUK-LPR ("Eukarÿs Liver ProRegeneration") is designed to reduce mortality and morbidity following partial hepatic resection by inducing liver regeneration prior to this surgical procedure. For specifically tumor indications of hepatectomy, including liver metastases of colorectal cancer, EUK-LPR will be associated with another synthetic gene therapy treatment whose development will be announced in 2020.

The tests performed in rats confirmed the excellent performance of EUK-LPR, since an 18% increase in hepatic mass is observed in animals in just 4 days after injection of an advanced EUK-LPR prototype. These results follow an extensive phase of preclinical optimization of the artificial gene whose expression is made possible by synthetic gene therapy. No signs of toxicity or poor tolerance have been observed in animals.

Philippe Jais, President & Scientific Director of Eukarÿs said: "We are delighted by these new results, which reinforce the considerable work undertaken over two years ago. EUK-LPR is designed to reduce the mortality of major hepatectomy, a major surgical procedure performed in more than 50,000 patients each year. We expect to start the regulatory phases at the end of 2020-early 2021 and the clinical phases by 2023. »

About Eukarÿs :

Eukarÿs is a French biotech company of the Evry Genopole Biocluster which is developing the first, and to date the only, eukaryotic artificial expression system called C3P3. This system allows the high yield production of mature messenger RNAs and thus proteins of interest in the host cell.

Through this system, Eukarÿs is developing a radically innovative approach of synthetic gene therapy that provides concrete solutions to the challenges facing this rapidly emerging therapeutic field. Synthetic gene therapy is based on the administration of synthetic DNA produced using a method developed by Eukarÿs. This approach is potentially usable for the majority of human diseases, both monogenic diseases that correspond to about 1% of human diseases, but also multifactorial diseases that correspond to the remaining 99%.

Eukarÿs also uses the C3P3 system to develop high performance bioproduction systems for biologic drugs including proteins, recombinant viruses and VLP vaccines.