Press release
10 December 2018

Gene therapy for Crigler–Najjar syndrome

First patient treated in the European clinical trial sponsored by Genethon

Genethon announces dosing of the first patient with Crigler–Najjar Syndrome, a rare liver disorder, in the European phase I/II gene therapy clinical trial – CareCN.

Following patient recruitment and preliminary observation period, the first patient was injected by Prof. Labrune at Beclere Hospital in Clamart, France. Genethon, the AFM-Telethon laboratory, is sponsoring this multicenter international phase I/II trial, injecting intravenously an AAV vector that is able to transfer the UGT1A1 gene (coding for the production of bilirubin GT) into liver cells. A total of 17 patients will be treated over the next few months.

The CareCN European clinical trial will assess the product's safety, determine the optimal dose and evaluate the drug candidate's therapeutic efficacy. It is being conducted in **four clinical centres in Europe**: in France (Prof. Labrune, Béclère Hospital in Clamart); in Italy (Prof. Brunetti-Pierri, Federico II Hospital in Naples and Prof. d'Antiga, Azienda Ospedaliera Papa Giovanni XXIII in Bergamo) and in the Netherlands (Prof. Beuers, Academic Medical Center in Amsterdam).

"We have dedicated many years of research at Genethon to design a gene therapy for the treatment of Crigler–Najjar syndrome, and we've worked in close collaboration with leading European clinical centres and with patients' associations to prepare the clinical trial. Treating the first patient is an important milestone for patients and their families, doctors and researchers but also for our laboratory, Genethon, whose quality of R&D is once again making it possible to propose innovative treatment for a rare disease" says Genethon CEO Frederic Revah.

For full details of the trial, consult the following link:
https://clinicaltrials.gov/ct2/show/NCT03466463

Crigler–Najjar syndrome is a rare genetic liver disorder (incidence around 1/1 000 000 births) characterized by the abnormal accumulation of bilirubin, a yellow pigment produced by the liver, in all body tissues. This hyperbilirubinemia results from a deficiency of the enzyme (UGT1A1), the enzyme that converts bilirubin into a substance that can be eliminated. When this enzyme does not work, bilirubin levels build up, leading to severe chronic icterus (jaundice) and becoming toxic to the brain. If it's not treated quickly, hyperbilirubinaemia can cause significant neurological damage and be deadly. To keep bilirubin levels below the toxicity threshold, patients currently undergo up to twelve hours of daily phototherapy. The only treatment is liver transplantation, a complex and highly invasive procedure.

About Généthon – www.genethon.fr

Created and financed by AFM-Téléthon, Généthon aims to provide patients with innovative gene therapy treatments. Having played a pioneering role in deciphering the human genome, Généthon now employs close to 180 researchers, doctors, engineers and regulatory affairs specialists, and is one of the leading international centres for preclinical and clinical research and development in gene therapy treatments for rare diseases.

About AFM-Téléthon – www.afm-telethon.fr

AFM-Téléthon is an association of patients and their relatives, committed to fighting disease. Thanks to donations from the Téléthon (€89.2 million in 2017), it has become a major player in biomedical research into rare diseases in France and across the world. Today, it supports clinical trials testing treatments for genetic diseases of the eyes, blood, brain, immune system and muscles. It is unlike other associations in that its laboratories have the ability to design, produce and test their own innovative therapies.

Free telephone number for affected families: 0800 35 36 37

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