PRESS RELEASE

U.S. PATENT PROTECTION REGISTRATION OF THE FUTURE DRUG ALLOWING THE DECORPORATION OF CESIUM

Montpellier, March 24, 2022 at 5:45 p.m. - Medesis Pharma (ISIN: FR0010844464, MNEMO: ALMDP), a Pharmaceutical Biotechnology Company developing drug candidates with Aonys®, its proprietary technology for the administration and delivery of active ingredients in nano micelles by mouth, announces today the notification of the registration in the United States of the patent filed in co-ownership with the CNRS and the University of Montpellier protecting the future drug developed with the Aonys technology for the decorporation of Cesium after a civil nuclear accident or military.

This patent filed in July 2016 is already registered in Japan and is in the process of being registered in Europe, China, Canada, Eurasia and Israel. It is now registered with the USPTO (United States Patent Trademark Office) under number 11278568.

The decorporation of Cesium follows an entero-intestinal cycle, with secretion in the intestinal lumen of the upper part of the digestive tract and reabsorption in its lower part. The only treatment is Prussian Blue or its derivatives, which prevent the reabsorption of Cesium and increase its elimination via the faecal route. It is administered in the form of capsules (18 capsules per day in adults) and very frequently triggers obstinate constipation leading to irradiation of the small pelvis. It is practically impossible to administer to children.

During the Chernobyl (Ukraine) and Fukushima (Japan) accidents, children and adolescents were the main victims, and many reports mention the deleterious effects on these populations. During nuclear contamination, Cesium diffuses into the atmosphere and quickly reaches, via the lungs, the bloodstream, the target organs (essentially the muscle and in particular the heart muscle) of the contaminated victims, where from then on, any treatment of decontamination is difficult. This contamination is particularly serious in infants and children who will develop serious cardiac pathologies in the following years.

By adapting the Aonys technology to Prussian Blue (BP), Medesis Pharma has synthesized nanoparticles of BP-Aonys® (NU02), with which studies have been carried out in animals. The results showed:

- An elimination of Cesium in the faeces, 5 times higher with a dose lower than that of the commercial product,
- At the same dose of 16 mg/kg, superior efficacy with faster decorporation in the heart (50%) than the control (15%),
- No measurable side effects.

Medesis Pharma also has industrial protection on two other drugs intended for the treatment of large populations exposed to a nuclear accident:

NU01: Decorporation of Plutonium and Americium
This fully owned patent is already registered in the United States, Japan, China, Australia, Eurasia, Armenia, Russia and South Africa. It is being recorded in Europe, India, South Korea and Canada.

NP02: NanoManganese: Radiation protection
This full ownership patent was filed in July 2019. It is pending registration in Europe, USA, Japan, China, India, Canada, Australia, Brazil, Eurasia, Israel and in South Africa.

The development of these future drugs requires additional funding. The therapeutic activity has been demonstrated, and a complementary program is necessary with pharmaceutical development for industrial production and a tolerance study on healthy volunteers to demonstrate safety before introducing the products into state emergency stocks.

Funding requests for these 3 programs have been submitted by Medesis Pharma to the French Defense Innovation Agency.

About Medesis Pharma

To advance the treatment of serious diseases without effective treatments, Medesis Pharma creates drug candidates based on its proprietary Aonys® technology for the oral administration of active ingredients in nanodroplet form, enabling active ingredients to be effectively delivered to all cells, with passage through the blood–brain barrier (BBB). This innovative approach is being applied for future drugs to treat major diseases that do not have effective treatments: Alzheimer's Disease, Huntington's Disease, certain resistant cancers and severe respiratory inflammations such as those linked to COVID-19. Medesis Pharma is also developing dedicated treatments for people irradiated following a civil or military nuclear accident. Medesis Pharma, a French biopharmaceutical company based near Montpellier, has a track record of 15 scientific publications, holds eleven patents, reflecting 17 years of research, and is focused specifically on four projects that are moving into Clinical Phase II for neurodegenerative diseases and the treatment of Covid-19. Building on its world-renowned positions, Medesis Pharma is also working on new applications for its technology in partnership with public research laboratories (CNRS, CEA, IRBA), major teaching hospital centers in France, Canada and the United States, as well as private structures such as Transgene.

Medesis Pharma's shares are listed on Euronext Growth Paris (FR0010844464 – ALMDP).

Learn more at
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