



MEDSENIC receives notice of approval for a new US patent broadening the use of arsenic trioxide to treat the relapsing-remitting form of multiple sclerosis

This new patent is based on the demonstration of a rapid return to normal of the induced-dysfunctional immune system in the animal model of central inflammation of experimental allergic encephalomyelitis (EAE mice) and of a correlated improvement of the neurological symptoms in disabled mice

Strasbourg, France, September 29, 2021 - Medsenic, a clinical-stage biopharmaceutical company specializing in the discovery and development of new indications and formulations of arsenic salts for the treatment of severe autoimmune diseases, today announced that it has received from the US Patent and Trademark Office (USPTO) with Arscimed®, a notice allowance for a patent which enhances in the United States the protection of its intravenous formulation of arsenic trioxide, particularly in SLE repair.

The new application patent completes, in a key territory, the already robust patent family protecting Arscimed. It will provide protection until 2037.

*"This patent represents a further recognition in the strategic US market of the very original properties of Arscimed. **The studies, in an established animal model of multiple sclerosis**, conducted by Medsenic, demonstrate a clear understanding of the mechanism of action of Arscimed® and highlight the biological parameters related to the observed correction of severe autoimmune symptoms in the case of a severe neurological disease, exemplified by the EAE. Our results confirm the relevance of our innovative approach and reinforce the legitimacy of the therapeutic development of our product Arscimed® and any new oral formulation of our active pharmaceutical ingredient, arsenic trioxide, As₂O₃".* declares Prof. François Rieger, President and co-founder of Medsenic,

About Arscimed®

Arsenic trioxide has the unique property of increasing cellular oxidative stress to the point where it induces cell death of activated cells (enhanced apoptosis). It also has an effect on pro-inflammatory cytokines.

It has a specific, long-term immunosuppressive and immunomodulatory effect on activated cells, without affecting the normal components of the immune system and with perfectly controlled side effects. It probably acts at a very fundamental level and upstream of the immune cascade, since, in animal models, we observe a correction of all the parameters signalling the autoimmune cascade.

Programs are currently underway to validate the proof of concept of an effective treatment in human clinical trials. MEDSENIC has already provided, through a Phase IIa clinical trial on the treatment of severe systemic lupus erythematosus, a first proof of concept which allows to establish that the treatment has a minimal

toxicity for clear efficacy, which suggests to extend the application of this treatment to other autoimmune diseases. The challenge is to define the quantities and duration of treatment necessary to eliminate pathogenic cells and correct abnormal components of the immune system in a sustainable manner. Arsenic trioxide (Arscimed®) should prove to be a decisive medication and an effective treatment for more than one autoimmune disease

About Multiple Sclerosis

Multiple sclerosis is an autoimmune disease that affects between 80,000 and 120,000 people in France, and some 6 million worldwide, all forms of MS combined, mostly women of childbearing age. There are at least two types of multiple sclerosis: Relapsing-Remitting (RRMS) and Progressive MS, chronic forms of an autoimmune disease that affects the central nervous system, with many related physiological consequences. This disease is very disabling and threatens the life of patients in about 10-15 % of the cases. Multiple sclerosis results from profound abnormalities of the immune system. Its causes remain poorly understood, ranging from complex genetic factors to the probable role of the environment, in particular some bacterial or viral infections.

About Medsenic

Medsenic is innovating and exploiting the new possibilities offered by the therapeutic use of arsenic trioxide in several autoimmune diseases and is currently in the process of clinical studies in Europe. The company was created in 2010 by Professor François Rieger, former Research Director at the CNRS, author of more than 170 international scientific publications, and Véronique Pomi-Schneider, former founder and manager of a consulting company in human resources, communication and development strategies. Under the aegis of a high-level scientific council, chaired by the 2011 Nobel Prize of Medicine winner Jules Hoffmann, an in innate Immunology, and supported by a solid core of private investors, Medsenic accelerated its development in 2016 with the financial support of institutional investors, Cap Innov Est, Fa Dièse and CNRS Innovation SA.

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