Mifcare Announces Positive Preclinical Results with MFC1040 in Pulmonary Arterial Hypertension

MIF antagonist MFC1040 improves pulmonary arterial hypertension in animal model

Paris, July 15, 2016 – Mifcare, a privately held biotechnology company developing breakthrough anti-inflammatory therapeutics announced today positive preclinical results for MFC1040 in pulmonary arterial hypertension (PAH) through collaboration with Inserm. MFC1040 is a small molecule antagonist of macrophage migration inhibitory factor (MIF), a pleiotropic mediator promoting pro-inflammatory immune responses.

The team of Christophe Guignabert, PhD, from INSERM U999, an academic laboratory specialized in pulmonary hypertension (PH), found that MIF is increased in both patients with PAH and animal models of the disease, contributing to the intense vascular remodeling of pulmonary vessels.

The same team demonstrated that MFC1040 treatment regresses established pulmonary vascular remodeling in the monocrotaline (MCT) rat model of PAH. Key findings indicated that MCT-treated rats receiving single daily dose of MFC1040 for two weeks exhibit a marked decrease in mean pulmonary arterial pressure (mPAP) and improvement in cardiac structure and functions. In addition, MFC1040 treatment significantly decreases the degree of pulmonary arterial wall thickness induced by MCT. Interestingly, these beneficial effects observed with MFC1040 were associated with a marked decrease in key inflammatory mediators known to contribute to PAH, such as IL-6 and MCP-1.

“These encouraging preclinical data suggest that MFC1040 may provide therapeutic benefit for people suffering from PAH and reinforce our commitment to target inflammation which is considered as a primary component of PAH pathogenesis” said Gael Jalce, PhD, CEO at Mifcare.

There is an urgent need to develop new therapies that address pulmonary vascular remodeling in addition to current approved PAH drugs which are mainly vasodilator agents. Mifcare is currently conducting preclinical development of its MIF antagonist lead MFC1040 that has multiple indications in the field of chronic inflammation, and plans to initiate a phase I clinical trial in the late 2017.

About PAH

Pulmonary arterial hypertension (PAH) is a severe and incurable disease characterized by progressive narrowing of the small pulmonary arteries leading to an abnormal increase in pulmonary vascular resistance and pulmonary blood pressure and, ultimately right ventricular heart failure. Although the exact mechanisms leading to the onset and progression of PAH are still not yet fully understood, inflammation in and around the pulmonary arteries is strongly suspected to facilitate the development of the disease.

About Inserm

Founded in 1964, the French National Institute of Health and Medical Research (Inserm) is a public science and technology institute, jointly supervised by the French ministry of education, higher Education and Research and the ministry of social affairs, health and women’s rights. The mission of its scientists is to study all diseases, from the most common to the most rare, through their work in biological, medical and public health research. Inserm supports more than 300 laboratories across
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France. In total, the teams include nearly 15,000 researchers, engineers, technicians and administrative staff, etc. For more information, please go to www.inserm.fr.

About Inserm U999

Inserm U999 headed by Marc Humbert, MD, PhD, is focused on pathophysiology and clinical management of pulmonary hypertension (PH). Composed of high level scientists, Inserm U999 studies molecular pathways causing pulmonary vascular remodeling in human and experimental models of PH, identifies targets for therapy, fosters drug development based on these targets and tests novel treatments. Inserm U999 is located at both Marie Lannelongue Hospital and Bicêtre Hospital. For more information, please go to www.u999.u-psud.fr/fr/.

About Mifcare

Mifcare is a privately held biotechnology company developing breakthrough anti-inflammatory therapeutics with a primary focus on pulmonary arterial hypertension (PAH). The company is specialized in the discovery and development of new small molecule antagonists of macrophage migration inhibitory factor (MIF), a pleiotropic factor that modulates pro-inflammatory immune responses. Mifcare has established a strategic collaboration in the field of pulmonary hypertension (PH) with Inserm U999, a world-renowned academic laboratory specialized in this disease. The company is headquartered in Paris, France. For more information about Mifcare, please visit www.mifcare.com or https://www.linkedin.com/company/mifcare.

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