

OSE Immunotherapeutics Signs a License Option Agreement with Inserm to Develop a New Cancer Immunotherapy Targeting Myeloid Cells

NANTES, France, September 28, 2017, 6:00 p.m. CET - OSE Immunotherapeutics SA (ISIN: FRO012127173; Mnémo: OSE) today announces that the company has entered into an agreement with Inserm Transfert, on behalf of Inserm, a French public organization dedicated to human health, and Nantes University, to collaborate on the development of a cancer immunotherapy targeting a new suppressive myeloid cell receptor (a C-type lectin receptor). This agreement includes a worldwide and exclusive license option for OSE to further develop any product candidate emerging from this collaboration following the planned conclusion of the partnership.

This research collaboration will focus on the development of an antibody that targets a newly identified C-type lectin receptor to block suppressive functions of myeloid cells and to restore anti-tumor response of T-lymphocytes. Suppressive myeloid cells have the ability to accumulate in the tumor microenvironment and to deregulate the immune activation of T-lymphocytes.

This new target was discovered by Dr. Elise Chiffolleau during her research on the mechanisms of immune tolerance in transplantation. Dr. Chiffolleau is a member of the research team led by Pr. Régis Josien, Director of the Center for Research in Transplantation and Immunology of Nantes (UMR 1064, Inserm, Nantes University).

Dr. Chiffolleau commented: *"The primary benefit of this collaboration is the strong synergy between our research in immunology and a biotech company expert in the field of cancer immunotherapy."*

Pascale Augé, CEO of Inserm Transfert, added: *"Inserm and Inserm Transfert are very satisfied to strengthen long-term collaborations with growing and well-established companies. This agreement demonstrates the dynamism of public / private partnerships between French academic research and French biotechnology companies."*

"We are very pleased to collaborate with an accomplished team whose foundational research in immunology complements our immunotherapy platform. This partnership strengthens our long-standing academic relationship and again demonstrates that fundamental research in transplantation immunology can be applied to broader therapeutic areas," said Bernard Vanhove, COO of OSE Immunotherapeutics, Head of R&D and International Scientific Collaborations.

Dominique Costantini, CEO of OSE Immunotherapeutics, concluded: *"The identification of this new target allows us to expand our presence in the highly attractive field of myeloid cells and macrophages, well-identified as poor prognostic factors in oncology and in immune escape mechanisms of existing cancer immunotherapies."*

ABOUT CRTI – <http://www.itun.nantes.inserm.fr/>

The CRTI is a joint research unit (UMR 1064) created by INSERM and Université de Nantes in 2012 and renewed in 2017, and is historically the evolution of previous units devoted to transplant immunology for almost 20 years in Nantes. The CRTI is located at the CHU Nantes Hotel Dieu where it constitutes with several clinical departments the Institute of Transplantation Urology and Nephrology (ITUN), one of the largest French and European kidney transplantation centers. This unique environment fosters interactions between basic scientists and clinicians, and explains the strong commitment of the CRTI to translational research. The CRTI gathers researchers and clinicians with expertise in basic immunology, transplantation, autoimmunity, inflammation, virology, nephrology, regenerative medicine, genetic and bioinformatics and who develop innovative projects going from basic to clinical research. The main and long-term objectives of these project are to improve treatments and patient monitoring in transplantation and immune-mediated inflammatory diseases (IMIDs) through understanding immune responses, developing new immunotherapeutics, biomarkers and tools for personalized medicine and developing alternative strategies for organ or tissue replacement.

ABOUT INSERM & INSERM TRANSFERT – <http://www.inserm-transfert.fr>

Founded in 2000, Inserm Transfert SA is the private subsidiary of the French National Institute of Health and Medical Research (Inserm). Inserm Transfert is dedicated to technology and knowledge transfer of Inserm's laboratories innovations, from scouting of invention disclosure to industrial partnership. Founded in 1964, the French National Institute of Health and Medical research (Inserm) is a public science and technology institute that supports more than 300 laboratories across France and include nearly 15,000 researchers, engineers, technicians, post-doctoral fellow, students... Inserm is the only French public research institute to focus entirely on human health and that positions itself on the pathway from research laboratory to the bed of the patient in a multidisciplinary approach. Inserm is a core member of the National Alliance for Life and Health Sciences (Aviesan), founded in April 2009.

ABOUT OSE Immunotherapeutics

Our ambition is to become a world leader in activation and regulation immunotherapies:

OSE Immunotherapeutics is a biotechnology company focused on the development of innovative immunotherapies for immune activation and regulation in the fields of immuno-oncology, autoimmune diseases and transplantation. The company has several scientific and technological platforms: neoepitopes, agonist or antagonist monoclonal antibodies, ideally positioned to fight cancer and autoimmune diseases.

Its first-in-class clinical portfolio offers a diversified risk profile.

In immuno-oncology:

- **Tedopi®**, 10 combined neo-epitopes to induce specific T activation in immuno-oncology – Phase 3 trial in advanced NSCLC; follow-up of patients included ongoing after temporary pause of new patient accrual end of June 2017.
Phase 2 with Tedopi® in combination with an immune checkpoint inhibitor planned in advanced pancreatic cancer, in collaboration with GERCOR, a cooperative group of clinical research.
- **OSE-172** (Effi-DEM), new generation checkpoint inhibitor targeting myeloid cells via the SIRP- α receptor - In preclinical development for several cancer models. Clinical program planned end of 2018.
- **OSE-703** (Effi-3), cytotoxic monoclonal antibody against the alpha chain of IL-7R - Under a research collaboration with Memorial Sloan Kettering Cancer Center, New York.

In auto-immune diseases and transplantation:

- **FR104**, CD28-antagonist in immunotherapy - Phase 1 trial completed – For the treatment of autoimmune diseases and for use with transplantation - Licensed to Janssen Biotech Inc. to pursue clinical development. Phase 2 planned end of 2018 in rheumatoid arthritis.

- **OSE-127** (Effi-7), interleukin receptor-7 antagonist - In preclinical development for inflammatory bowel diseases and other autoimmune diseases. Clinical phase planned end of 2018. License option agreement with Servier for the development and commercialization.

The portfolio's blockbuster potential gives OSE Immunotherapeutics the ability to enter global agreements at different stages of development with major pharmaceutical players.

Immunotherapy is a highly promising and growing market. By 2023 Immunotherapy of cancer could represent nearly 60% of treatments against less than 3% at present * and the projected market is estimated at \$67 billion in 2018 **. There are more than 80 autoimmune diseases that represent a significant market including major players in the pharmaceutical industry with sales towards \$10 billion for the main products. The medical need is largely unmet and requires the provision of new innovative products involved in the regulation of the immune system.

*Citi Research Equity

**BCC Research

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Forward-looking statements

This press release contains express or implied information and statements that might be deemed forward-looking information and statements in respect of OSE Immunotherapeutics. They do not constitute historical facts. These information and statements include financial projections that are based upon certain assumptions and assessments made by OSE Immunotherapeutics' management in light of its experience and its perception of historical trends, current economic and industry conditions, expected future developments and other factors they believe to be appropriate.

These forward-looking statements include statements typically using conditional and containing verbs such as "expect", "anticipate", "believe", "target", "plan", or "estimate", their declensions and conjugations and words of similar import.

Although the OSE Immunotherapeutics management believes that the forward-looking statements and information are reasonable, the OSE Immunotherapeutics' shareholders and other investors are cautioned that the completion of such expectations is by nature subject to various risks, known or not, and uncertainties which are difficult to predict and generally beyond the control of OSE Immunotherapeutics. These risks could cause actual results and developments to differ materially from those expressed in or implied or projected by the forward-looking statements. These risks include those discussed or identified in the public filings made by OSE Immunotherapeutics with the AMF. Such forward-looking statements are not guarantees of future performance.

This press release includes only summary information and should be read with the OSE Immunotherapeutics Reference Document filed with the AMF on 28 April 2017 under the number R.17-038, including the annual financial report for the fiscal year 2016, available on the OSE Immunotherapeutics' website.

Other than as required by applicable law, OSE Immunotherapeutics issues this press release at the date hereof and does not undertake any obligation to update or revise the forward-looking information or statements.