OSE Immunotherapeutics presents significant preclinical results for new generation checkpoint inhibitor, Effi-DEM, at the international conference

«Regulatory Myeloid Suppressor Cells: From Basic Discovery to Application» Philadelphia, June 16-19, 2016

Paris, Nantes, June 20, 2016 - OSE Immunotherapeutics SA (ISIN : FR0012127173 ; Mnémo : OSE), an immunotherapy company developing activating or regulating immunotherapies in immuno-oncology, autoimmune diseases and transplantation, today announces that two abstracts were presented at the international immunotherapy conference, "Regulatory Myeloid Suppressor Cells: From Basic Discovery to Application," held in Philadelphia, PA (June 16-19, 2016). The abstracts, presented in a poster session, showed significant results from both *in vitro* and *in vivo* preclinical studies conducted in immuno-oncology with Effi-DEM, a new generation checkpoint inhibitor.

The two abstracts presented at « Regulatory Myeloid Suppressor Cells », a conference dedicated to the functions and mechanisms of cells involved in cancer, showed significant data from preclinical studies conducted both *in vitro* and *in vivo* with new generation checkpoint inhibitor and SIRP-alpha antagonist, Effi-DEM, in primary liver cancer models.

These preclinical results confirmed that Effi-DEM, by specifically targeting the SIRP-alpha receptor, has the potential to transform suppressor myeloid and macrophage cells in non-suppressive cells, thereby inducing a reactivation of the immune response, an anti-tumor impact and an immune memory.

SIRP-alpha is a receptor which is strongly expressed by Myeloid Derived Suppressor Cells (MDSC) and Tumor Associated Macrophages (TAM), suppressor immune cells which play a key role in tumor growth of inflammatory cancers. The results presented refer to models of primary liver cancer, which is linked to chronic inflammation in which key cells of tumor growth are involved[(1);(2)], and a potential cancer indication targeted by Effi-DEM.

Bernard Vanhove, Chief Operating Officer in charge of R&D and Scientific collaborations for OSE Immunotherapeutics, comments: *« To have our data selected for presentation at the international conference « Regulatory Myeloid Suppressor Cells: From Basic Discovery to Application » shows the innovation and therapeutic potential of new generation checkpoint inhibitor, Effi-DEM. We are pleased to share such significant preclinical results with the scientific community and the pharmaceutical industry involved in immuno-oncology. »*

Dominique Costantini, Chief Executive Officer of OSE Immunotherapeutics, adds: *« These preclinical advances are generating relevant and strong data, reinforcing the rationale for further preclinical and*

clinical development of Effi-DEM, a first-in-class product in immuno-oncology. We thank our teams involved in this development for their scientific excellence. »

(1) *Di Fusco D, Cupi ML, Figliuzzi MM, Marafini I, Pallone F, et al. (2014) The Dual Role of Myeloid-Derived Suppressor Cells in Liver Pathologies. J Liver Clin Res 1(1): 1001.*

(2) Arihara F, Eishiro Mizukoshi F, Kitahara M, et al. (2013) Increase in CD14+HLA-DR2/low myeloid-derived suppressor cells in hepatocellular carcinoma patients and its impact on prognosis. Cancer Immunol Immunother (2013) 62:1421–1430

The abstracts presented:

- *"Selective targeting of the SIRPα immune checkpoint, but not CD47, controls the polarization of macrophages"*
- *"Control of immune tolerance by the SIRPα - CD47 pathway and Myeloid-Derived Suppressor Cells"*

ABOUT Effi-DEM

Effi-DEM is a second generation checkpoint inhibitor developed by OSE Immunotherapeutics in immuno-oncology. It blocks specifically the SIRP-alpha (Signal Regulatory Protein Alpha) receptor and transforms Myeloid Derived Suppressor Cells (MDSC) and Tumor Associated Macrophages (TAM) into non suppressor cells. The immune system is thus reactivated and tumor growth is blocked. Hepatocellular carcinoma, a type of cancer linked to chronic inflammation that expresses key cells of tumor progression, is one of the potential indications targeted by Effi-DEM.

ABOUT THE CONFERENCE « REGULATORY MYELOID SUPPRESSOR CELLS »

This international conference presents the latest and most innovative advances in the field of immunotherapy targeting myeloid cells. It particularly focuses on the pathological functions of myeloid-derived suppressor cells, dendritic cells, macrophages and neutrophils, and provide a forum for in-depth discussion of the most pressing issues associated with the biology and clinical application of these cells. The conference brings together scientists from academia and industry interested in the basic and translational aspects of these cells in cancer and other pathological conditions.

ABOUT OSE IMMUNOTHERAPEUTICS

OSE Immunotherapeutics is a biotechnology company specializing in immune regulation with clinical applications in immuno-oncology, autoimmune diseases and transplantation. The company has a balanced portfolio, from R&D to clinical phase 3 registration, with a diversified risk profile. It is composed of advanced immunotherapy products in clinical pivotal phase 3 and in phase 2 with Tedopi® (combined neoepitopes in oncology, developed in advanced lung cancer, NSCLC); and FR104 in phase 1 (a CD28-antagonist immunotherapy - licensed to Janssen Biotech Inc., a Johnson & Johnson company). The company also has promising products in preclinical phase and potential drug candidates in R&D, targeting new receptors of interest in immuno-oncology, autoimmune and inflammatory diseases, and transplantation. This product portfolio is supported by an innovative technology foundation and know-how in selection and optimization of new generation products acting on new immunological targets, notably a new generation check-point inhibitor targeting suppressive myeloid cells and macrophages associated to tumors (Effi-DEM) and an immunomodulator, interleukin-7 antagonist (Effi-7), developed for autoimmune diseases and transplantation.

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Contacts

OSE Immunotherapeutics

Dominique Costantini, CEO
dominique.costantini@ose-immuno.com
Mob +33 6 13 20 77 49

Maryvonne Hiance, Vice Chairman
maryvonne.hiance@ose-immuno.com
Tél : +33 (0) 240 412 834
Mobile : 33 (0) 680 060 183

Alexis Peyroles, COO, Operations, Finance & BD
alexis.peyroles@ose-immuno.com
Mob : +33 6 11 51 19 77

Bernard Vanhove, COO, R&D, Scientific collaborations
bernard.vanhove@ose-immuno.com
Mob: +33 6 75 41 40 08

Contacts media

Citigate Dewe Rogerson
Laurence Bault
laurence.bault@citigate.fr
+33 1 53 32 84 78

Alize RP
Florence Portejoie & Caroline Carmagnol
oseimmuno@alizerp.com
+33 6 47 38 90 04

Consilium Strategic Communications
Chris Gardner / Matthew Neal / Hendrik Thys
OSEImmuno@consilium-comms.com
+44 (0) 20 3709 5700

Rx Communications Group, LLC
Melody Carey
mcarey@rxir.com
+ 1 917-322-2571

Acorelis
Gilles Petitot
Mobile : 33 (0) 620 27 65 94
gilles.petitot@acorelis.com

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 Immunotherapeutic's 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 Immunotherapeutic's management believes that the forward-looking statements and information are reasonable, the OSE Immunotherapeutic's 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 8 June 2016 under the number R.15-052, the consolidated financial statements and the management report for the fiscal year 2015, as well as the Merger Document registered with the AMF on 26 April 2016 under number E.16-026, all available on the OSE Immunotherapeutic's 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.