OSE Immunotherapeutics Identifies Monoclonal Antibody Antagonists of CLEC-1 as New Checkpoint Inhibitors of Immune Myeloid Cells in Immuno-Oncology

Oral and Poster Presentations at AACR Virtual Meeting II 2020 – June 22-24

- **New myeloid immune checkpoint pathway identified and characterized**
- **Preclinical progress reported with CLEC-1 monoclonal antibody antagonists blocking the "Don't Eat Me" signal**
- **Antibody antagonists targeting this new immune checkpoint represent a novel approach in cancer immunotherapy**

Nantes, France, June 9, 2020, 6:00PM CET – OSE Immunotherapeutics (ISIN: FR0012127173; Mnémo: OSE) announces the presentation of the identification and characterization of a new myeloid checkpoint target, CLEC-1 (a C-type lectin receptor), and of the first monoclonal antibody antagonists of CLEC-1 identified as an innovative step in cancer immunotherapy, in both an oral[(1)] and a poster presentation[(2)] at the American Association of Cancer Research (AACR) Virtual Annual Meeting II, to be held on June 22-24, 2020.

Tumor cells inhibit myeloid cells phagocytosis through CLEC-1. The antagonists developed by OSE block the new CLEC-1/CLEC-1L myeloid checkpoint and constitute a novel cancer immunotherapy, in particular synergistic with chemotherapy.

Nicolas Poirier, Chief Scientific Officer of OSE Immunotherapeutics, comments*: "We are very pleased to share the results of our research collaboration in the field of myeloid cells and macrophages. Our teams have characterized the myeloid checkpoint CLEC-1 as a new therapeutic target in immuno-oncology and identified monoclonal antibody antagonists blocking this novel "Don't Eat Me" signal that increase both tumor cell phagocytosis by macrophages and antigen capture by dendritic cells. The identification of CLEC-1 and its antagonists constitute an exciting innovative step in cancer immunotherapy."*

An oral presentation [(1)] by the Company's partner Dr. Elise Chiffoleau *(Center for Research in Transplantation and Immunology, UMR - INSERM 1064, Nantes University Hospital)* describes the identification of CLEC-1 as a novel myeloid immune checkpoint regulating anti-tumor responses.

OSE Immunotherapeutics' poster presentation[(2)] features its CLEC-1 antagonist monoclonal antibodies, which have been identified as an innovative immunotherapy that releases the brakes on macrophage phagocytosis and dendritic cells and demonstrates synergistic anti-cancer effects, in particular when paired with chemotherapy.

(1) **AACR Virtual Annual Meeting II oral presentation details**

CLEC-1 suppress dendritic cell antigen presentation and is a novel myeloid immune checkpoint target for cancer immunotherapy.

Drouin M, Saenz J*, Evrard B, Gauttier V, Teppaz G, Lopez-Robles MD, Louvet C, Poirier N*, Chiffoleau E**

*authors contribute equally to this work

(2) **AACR Virtual Annual Meeting II poster details**

CLEC-1 is a novel myeloid immune checkpoint for cancer immunotherapy controlling damaged and tumor cells phagocytosis.

Gauttier V, Drouin M*, Saenz J, Evrard B, Mary C, Teppaz G, Desalle A, Thépenier V, Wilhelm E , Poirier N*, Chiffoleau E**

*authors contribute equally to this work

ABOUT OSE Immunotherapeutics

OSE Immunotherapeutics is a clinical-stage biotechnology company focused on developing and partnering therapies to control the immune system for immuno-oncology and autoimmune diseases. The company has several scientific and technological platforms including neoepitopes and agonist or antagonist monoclonal antibodies, all ideally positioned to fight cancer and autoimmune diseases. Its first-in-class clinical and preclinical portfolio has a diversified risk profile:

- **Tedopi®** (innovative combination of neoepitopes) : the company's most advanced product ; **positive results for Step-1 of the Phase 3 trial** (Atalante 1) in **Non-Small Cell Lung Cancer** post checkpoint inhibitor failure; due to Covid-19, voluntary definitive suspension of new patient accrual in the Step-2 initially planned in the trial.
  In **Phase 2 in pancreatic cancer** (TEDOPaM, sponsor GERCOR) in combination with checkpoint inhibitor Opdivo®.
- **BI 765063** (OSE-172, anti-SIRPα monoclonal antibody): developed in **partnership with Boehringer Ingelheim**; myeloid checkpoint inhibitor in **Phase 1 in advanced solid tumors**.
- **FR104** (anti-CD28 monoclonal antibody): **positive Phase 1 results**; **Phase 2-ready asset in autoimmune diseases or in transplantation**.
- **OSE-127** (humanized monoclonal antibody targeting IL-7 receptor): developed in **partnership with Servier**; **positive Phase 1 results**; two independent **Phase 2** planned in **ulcerative colitis** (OSE sponsor) and in **Sjögren's syndrome** (Servier sponsor) to start in 2020.
- **BiCKI®**: **bispecific fusion protein** platform built on the key backbone component anti-PD-1 (OSE-279) combined with new immunotherapy targets; 2nd generation of PD-(L)1 inhibitors to increase **antitumor efficacity**. **Additional innovative research programs**.
- **CoVepiT**: a **prophylactic vaccine** against **COVID-19**, developed using SARS-CoV-2 optimized neo-epitopes. First **preclinical results expected start of H2 2020**, possible **clinical trial by year end**.
  Due to the COVID-19 crisis, accrual of new patients in the clinical trial TEDOPaM is temporarily suspended and initiation timelines for both Phase 2 trials of OSE-127 could be impacted during the coming months.

For more information: **https://ose-immuno.com/en/**

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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 Universal Registration Document filed with the AMF on 15 April 2020, including the annual financial report for the fiscal year 2019, 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.