OSE Immunotherapeutics to Present New Preclinical Data at Upcoming Bispecific Antibody and Immunology Conferences

New Data Supporting Bispecific Antibody Checkpoint Inhibitor Platform (BiCKI®) and Bifunctional Therapy Targeting PD1 and IL-7 (BiCKI®-IL-7) For Cancer Immunotherapy

Nantes, France – October 19, 2021, 6:00 p.m. CET - OSE Immunotherapeutics SA (ISIN: FR0012127173; Mnemo: OSE) today announces that its Chief Scientific Officer Nicolas Poirier will present the latest preclinical progress on the bispecific antibody platform BiCKI® and on the first BiCKI® product, BiCKI®-IL-7, a bifunctional anti-PD-1/interleukin-7 (IL-7) fusion protein, at three upcoming international antibody and immunology conferences.

The different presentations show that T cells which recognize neoantigens in human lung or melanoma tumors poorly express IL-7R and on the contrary, express a high level of PD-1 receptors. Particularly in patients refractory to anti-PD1 immunotherapies, modern immunology tools report that these tumor-specific T cells are more metabolically stressed and pro-apoptotic. Additional data demonstrate that selectively providing the pro-survival cytokine IL-7 to these PD-1+ tumor-specific T cells induces long-term survival, proliferation and responses without signs of T cell exhaustion, as well as a robust memory anti-tumor response *in vivo* in different preclinical models.

Event: PEGS Europe (Protein & Antibody Engineering Summit), Barcelona and virtual - November 2 - 4, 2021
Presentation time: November 4 at 15:20 CET
Session: Immunocytokines and ligands
Title : ***"Anti-PD1/IL7 Bifunctional, "in Cis-Delivery" of Interleukin-7 to PD1+ T Cells Overcome Anti-PD1 Resistance"***
The presentation will discuss i) the rationale behind the design of an immunocytokine platform for optimized bi-functional antagonist antibodies, ii) how IL-7 revives the cancer immunity cycle and reinvigorates exhausted T cells and human TILs, and iii) how the 'In-cis delivery' of IL-7 to PD1+ T cells overcomes anti-PD1 resistance in immunocompetent or humanized mice models.

Event: Festival of Biologics, Basel - November 9 - 11, 2021
Presentation time: November 10 at 14:20 CET
Session: Antibodies for Immunotherapy
Title : ***"Bispecific anti-PD1/IL7 preclinical evaluation"***
The presentation will focus on the preclinical efficacy of BiCKI®IL-7v in immunocompetent tumor models partially sensitive or refractory to checkpoint inhibitors targeting PD1 or PDL1. More details on the long-term and durable effect of BiCKI®IL-7v will be provided, in particular how it preferentially

increases the number and infiltration in the tumor of stem-like memory CD8 T cells expressing the hallmark TCF1 marker as well as IL-7R and PD1.

Event: Cytokine-based Cancer Immunotherapies Summit, Boston and virtual - November 30 - December 2, 2021
Presentation time: December 1 at 12:30 CET
Title: "***Exploring an Optimized Anti-PD Bispecific Immunocytokine Platform & Interest of IL-7"***
The presentation will cover the BiCKI® monovalent anti-PD1 platform and its optimization for manufacturing and pharmacokinetics of innovative bispecific fusion proteins. In addition, the presentations will delve into the key roles of the valency and affinity of fused cytokines, and will demonstrate the significant preclinical efficacy of an anti-PD1/IL-7 bispecific in syngeneic immuno-competent or humanized mice models.

ABOUT OSE Immunotherapeutics

OSE Immunotherapeutics is an integrated biotechnology company focused on developing and partnering therapies to control the immune system for immuno-oncology and autoimmune diseases. The company's immunology research and development platform is focused on three areas: T-cell-based vaccination, Immuno-Oncology (focus on myeloid targets), Auto-immunity & Inflammation. Its balanced first-in-class clinical and preclinical portfolio has a diversified risk profile:

Vaccine platform

- **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 patients after secondary resistance to checkpoint inhibitors.
  In Phase 2 in pancreatic cancer (TEDOPaM), sponsor GERCOR.
  In Phase 2 in ovary cancer, in combination with pembrolizumab (TEDOVA), sponsor ARCAGY-GINECO.
  In Phase 2 in non-small cell lung cancer in combination with nivolumab, sponsor Italian foundation FoRT.
- **CoVepiT**: a prophylactic second-generation vaccine against COVID-19, developed using SARS-CoV-2 optimized epitopes against multi variants. Positive preclinical and human ex vivo results. Voluntary and temporary Phase 1 enrollment suspension on-going (July 2021).

Immuno-oncology platform

- **BI 765063** (OSE-172, anti-SIRPα mAb on CD47/SIRPα pathway): developed in partnership with Boehringer Ingelheim in advanced solid tumors; positive Phase 1 dose escalation results of BI 765063 in monotherapy or in combination with ezabenlimab (PD-1 antagonist); Expansion Phase 1 open for screening. .
- **CLEC-1** (novel myeloid checkpoint target): identification of mAb antagonists of CLEC-1 blocking the "Don't Eat Me" signal that increase both tumor cell phagocytosis by macrophages and antigen capture by dendritic cells.
- **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.

Auto-immunity and inflammation platform

- **FR104** (anti-CD28 monoclonal antibody): Licensing partnership agreement with Veloxis in the organ transplant market; ongoing Phase 1/2 in renal transplant (sponsored by the Nantes University Hospital); Phase 2-ready asset in an autoimmune disease indication.
- **OSE-127/S95011** (humanized monoclonal antibody targeting IL-7 receptor): developed in partnership with Servier; positive Phase 1 results; in Phase 2 in ulcerative colitis (OSE sponsor) and an independent Phase 2a planned in Sjögren's syndrome (Servier sponsor).
- **OSE-230** (ChemR23 agonist mAb): first-in-class therapeutic agent with the potential to resolve chronic inflammation by driving affected tissues to tissue integrity.

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 2021, including the annual financial report for the fiscal year 2020 and the Amendment to the Universal Registration Document filed with the AMF on 2 June 2021 under number D. 21-0310-A01, 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.