OSE Immunotherapeutics Announces First Peer-Reviewed Publication in *Science Advances* on OSE-230, its Novel Monoclonal Antibody Agonist Therapy Triggering Resolution of Chronic Inflammation

Nantes, April 6, 2021, 7:30AM CET - OSE Immunotherapeutics (ISIN: FR0012127173; Mnemo: OSE) announced the first peer-reviewed publication on OSE-230, a novel and innovative approach in the management of the resolution of chronic and severe inflammation, in *Science Advances*.

The article, entitled: "*Agonist anti-ChemR23 mAb reduces tissue neutrophil accumulation and triggers chronic inflammation resolution*" [(1)] reports on the discovery and preclinical data for OSE-230, an innovative agonist antibody against ChemR23, also known as chemerin chemokine-like receptor 1 (CMKLR1), a G-protein coupled receptor (GPCR) expressed on myeloid immune cells known to modulate inflammation.

OSE Immunotherapeutics's R&D team identified ChemR23 as a GPCR receptor of the resolution program overexpressed in the inflamed tissues of patients unresponsive to anti-TNFα or anti-α4β7 therapies with high unmet medical needs.

The preclinical results demonstrate that OSE-230 accelerates inflammation resolution and tissue hemostasis in severe inflammatory models. Most importantly, OSE-230 triggers pro-resolutive actions resulting in the resolution of chronic inflammation in models where such recovery is deficient or missing. The direct consequence of OSE-230 pro-resolutive actions is a marked reduction of fibrosis in inflamed tissues and a significant reduction in the development of inflammation-driven tumors.

Nicolas Poirier, Chief Scientific Officer of OSE Immunotherapeutics, comments: *"We are very pleased with this publication on OSE-230 in 'Science Advances', a journal of highest scientific level which recognizes the disruptive innovation of our research program. This is the first peer-reviewed publication to describe an agonist monoclonal antibody, which triggers pro-resolutive mechanisms in macrophages and neutrophils in chronic inflammatory condition. This breakthrough discovery opens the development pathway of OSE-230 in various chronic inflammations such as inflammatory bowel diseases, arthritis, type 1 diabetes, lung or kidney inflammatory diseases. We believe this discovery suggests OSE-230 could also be used as a treatment in severe COVID-19 patients where excessive inflammation has a key role in the physiopathology of the disease".*

Alexis Peyroles, Chief Executive Officer of OSE Immunotherapeutics, adds*: "OSE-230 is an additional program that positions OSE as a true leader in innovation and discovery of new pathways. Based on the strong potential of OSE-230, we look forward to initiating an ambitious development plan to address the numerous patients' need for disruptive innovations to manage complex inflammatory diseases."*

This research was the result of a productive collaboration between the OSE R&D team and scientific partners at Ambiotis, a French Contract Research Organization specialized in the active resolution of inflammation, MAbSilico, a deep technology innovative French TechBio specialized in Artificial Intelligence and the CRTI (Center for Research in Transplantation and Immunology, UMR1064, INSERM, Nantes University based at the University Hospital of Nantes).

(1) ***Agonist anti-ChemR23 mAb reduces tissue neutrophil 1 accumulation and triggers chronic inflammation resolution***
Trilleaud C., Gauttier V., Biteau K., Girault I., Belarif L., Mary C., Pengam S., Teppaz G., Thepenier V., Danger R., Robert-Siegwald G., Néel M., Bruneau S., Glemain A., Néel A., Poupon A., Mosnier JF., Chêne G., Dubourdeau M., Blancho G., Vanhove B., Poirier N.

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 post checkpoint inhibitor failure.
  In Phase 2 in pancreatic cancer (TEDOPaM, sponsor GERCOR)
  In Phase 2 in ovary cancer (TEDOVA, sponsor ARCAGY-GINECO)
  Due to the COVID-19 crisis, accrual of new patients in TEDOPaM should restart in 2021.
- **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 in August 2020. In clinical Phase 1 .

Immuno-oncology platform

- **BI 765063** (OSE-172, anti-SIRPα mAb on SIRPα/CD47 pathway): developed in partnership with Boehringer Ingelheim; myeloid checkpoint inhibitor in Phase 1 in advanced solid tumors.
- **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): positive Phase 1 results; ongoing Phase 1/2 in renal transplant, Phase 2-ready asset in a niche indication in autoimmune diseases.
- **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 2 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.
  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/S95011 could be impacted during the coming months.

For more information:
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Contacts

OSE Immunotherapeutics
Sylvie Détry
Sylvie.detry@ose-immuno.com
+33 153 198 757

French Media: FP2COM
Florence Portejoie
fportejoie@fp2com.fr
+33 607 768 283

U.S. Media: LifeSci Communications
Darren Opland, Ph.D.
darren@lifescicomms.com
+1 646 627 8387

U.S. and European Investors
Chris Maggos
chris@lifesciadvisors.com
+41 79 367 6254

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.