OSE Immunotherapeutics to Present New Data Reflecting Expansion and Progress on its Immuno-Oncology and Inflammation Preclinical Portfolio at the 2021 AACR Annual meeting

- **CLEC-1, novel myeloid immune checkpoint for cancer immunotherapy limiting tumor cells phagocytosis and tumor antigen cross-presentation.**
- **BiCKI®-IL-7, bifunctional therapy targeting PD-1 and IL-7 to sustain exhausted T cell function and to disarm Treg suppressive activity.**
- **OSE-230, novel monoclonal antibody agonist therapy triggering resolution of chronic inflammation.**

E-Poster Presentations at AACR Virtual Meeting 2021 – April 10-15

Nantes, France, March 11, 2021 – 6:00PM CET – OSE Immunotherapeutics (ISIN: FR0012127173; Mnemo: OSE) announced today that new preclinical data has been selected for e-poster[(1)] presentations **at the American Association of Cancer Research (AACR)** Virtual Annual Meeting I, to be held on April 10 - 15, 2021. The presentations will include data on the novel "Don't Eat Me" signal myeloid immune checkpoint target CLEC-1 (a C-type lectin receptor), BiCKI-IL-7 bifunctional therapy targeting PD-1 and IL-7 and OSE-230, a novel monoclonal antibody agonist therapy driving resolution of chronic inflammation.

Alexis Peyroles, Chief Executive Officer of OSE Immunotherapeutics, comments*: "These AACR update presentations show the significant advancements we made throughout our innovative preclinical portfolio. Our findings demonstrate the strong therapeutic potential of the first-in-class research programs featured, CLEC-1, BiCKI-IL-7 and OSE-230, while building a solid basis for future clinical development. Furthermore, this reinforces the Company's leading position in immuno-oncology and in chronic inflammation by highlighting these promising assets to become a key global player in immunotherapy."*

"CLEC-1 is a novel myeloid immune checkpoint for cancer immunotherapy limiting tumor cells phagocytosis and tumor antigen cross-presentation"

CLEC-1 is a recently identified C-type lectin receptor with demonstrated potential to block the suppressive functions of myeloid cells and to restore anti-tumor responsiveness of T-lymphocytes. Suppressive myeloid cells have the ability to accumulate in the tumor microenvironment and deregulate the immune activation of T-lymphocytes. CLEC-1 is a new therapeutic target of interest in immuno-oncology*.

The e-poster data will illustrate that CLEC-1 broadly inhibits tumor-cell phagocytosis and synergizes with tumor-targeted cytotoxic monoclonal antibodies in both solid and hematological tumors and hampers DC antigen cross-presentation.
**Collaborative program from Dr Elise Chiffoleau's research team (Center for Research in Transplantation and Immunology, UMR1064, INSERM , Nantes University at Nantes University Hospital).*

"Optimized antagonist anti-PD-1/IL-7 mutein bispecific antibody to sustain exhausted T cell function and to disarm Treg suppressive activity"

BiCKI®-IL-7, a novel bispecific therapy combining anti-PD-1 and the cytokine IL-7, has potential to help in overcoming tumor resistance mechanisms to anti-PD(L)-1 therapies and will potentially address the high medical need of patients whose cancer is refractory to immune checkpoint inhibitor treatments.

The combined research data collected to date validate the strong therapeutic potential of providing IL-7 signals to strengthen PD-1 therapy and prevent immuno-resistance by sustaining T cell response and overcoming Treg suppression. The bispecific BiCKI® IL-7 mutein can preferentially deliver and activate IL-7 pathway on tumor reactive T cells, limiting the risk of immunotoxicity resulting from combination immunotherapies.

"Triggering the resolution of inflammation with agonistic anti-ChemR23 antibody dampens inflammation-driven carcinogenesis"

OSE-230 is an anti-ChemR23 antibody, also known as chemerin chemokine-like receptor 1 (CMKLR1), a G-protein coupled receptor (GPCR) expressed on myeloid immune cells known to modulate inflammation. This first-in-class therapeutic agent has the potential to resolve chronic inflammation by driving affected tissues to complete the inflammation program and restore tissue integrity. OSE-230 can be developed in various chronic inflammation indications, including tumor-associated inflammation and autoimmune pathologies.

The presented data will reveal for the first time the therapeutic potential of triggering the pro-resolutive pathways using an anti-ChemR23 agonistic monoclonal antibodies to limit chronic inflammation in the tumor microenvironment and inhibit metastasis development.

E-poster presentation details

Title: CLEC-1 is a novel myeloid immune checkpoint for cancer immunotherapy limiting tumor cells phagocytosis and tumor antigen cross-presentation.
Gauttier V., Pengam S., Drouin M., Saenz J., Evrard B., Mary C., Teppaz G., Desselle A., Thépenier V., Wilhelm E., Poirier N., Chiffoleau E.
Session Type: E-Poster Session
Session Category: Immunology
Session Title: Immune Checkpoints
Permanent Abstract Number: 1636

Title: Optimized antagonist anti-PD-1/IL-7 mutein bispecific antibody to sustain exhausted T cell function and to disarm Treg suppressive activity.
Morello A., Seité M., Durand J, Thépenier V., Teppaz G., Pengam S., Wilhelm E., Desselle A., Girault I., Mary C., Poirier N.

Session Type: E-Poster Session
Session Category: Clinical Research (Excluding Trials)
Session Title: Therapeutic Antibodies
Permanent Abstract Number: 692

Title: Triggering the resolution of inflammation with agonistic anti-ChemR23 antibody dampens inflammation-driven carcinogenesis

Gauttier V., Lavy M., Trilleaud C., Biteau K., Girault I., Belarif L., Teppaz G., Mary C., Thepenier V., Blanquart C., Barillé-Nion S., Poirier N.

Session Type: E-Poster Session
Session Category: Immunology
Session Title: Inflammation, Immunity, and Cancer
Permanent Abstract Number: 1766

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 combination.
  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, clinical trial expected to start in Q1 2021.

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.

For more information:
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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.