OSE Immunotherapeutics Presented the First Positive Preclinical Efficacy Data on CLEC-1, a Novel Myeloid Immune Checkpoint Target For Cancer Immunotherapy

Data presented at the 36th Annual Society for Immunotherapy of Cancer (SITC) Meeting

Nantes, France – November 15, 2021, 7:30 a.m. CET - OSE Immunotherapeutics SA (ISIN: FR0012127173; Mnemo: OSE) presented the first positive preclinical efficacy data on its novel myeloid cell immune checkpoint target, CLEC-1 (a C-type lectin receptor), at the Society for Immunotherapy of Cancer (SITC) 36th Annual Meeting in Washington D.C. held in-person and virtually on November 10 – 14, 2021.

In the poster entitled: ***"Preclinical efficacy of CLEC-1 antagonist as novel myeloid immune checkpoint therapy for oncology"***, OSE Immunotherapeutics and Dr Elise Chiffoleau's research team* reported results from their collaborative program, and for the first time highlighted significant preclinical efficacy of CLEC-1 antagonist antibodies *in vivo* and in monotherapy in an hepatocarcinoma tumor model in immunocompetent mice.

Nicolas Poirier, Chief Scientific Officer of OSE Immunotherapeutics, commented: *"The identification of CLEC-1 and its antagonists is an exciting innovation in cancer immunotherapy, as already presented in recent immuno-oncology events. The latest preclinical efficacy data generated from our teams' collaboration opens the development pathway for monoclonal antagonist antibodies targeting CLEC-1 and for further translational clinical development in the coming years as a new myeloid immune checkpoint therapy releasing the breaks on macrophages and dendritic cells. CLEC-1 is a new myeloid checkpoint inhibitor identified and validated for cancer immunotherapy after the CD47-SIRPα pathway, which is now a competitive drug development focus."*

CLEC-1 is a C-type lectin receptor with demonstrated potential to inhibit the functions of myeloid cells and to block anti-tumor responsiveness of T-lymphocytes. Myeloid cells have the ability to accumulate in the tumor microenvironment and deregulate the immune activation of T-lymphocytes.

Previous presentations (AACR 2020 and 2021, SITC 2020) ** featured CLEC-1 antagonist monoclonal antibodies 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.

**Center for Research in Transplantation and Immunology, UMR1064, INSERM, Nantes University at Nantes University Hospital (CHU).*

** AACR 2020 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

AACR 2020 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

SITC 2020 Virtual Annual Meeting poster details

CLEC-1 is a novel myeloid immune checkpoint controlling damaged and tumor cells phagocytosis.
Gauttier V, Pengam S, Drouin M, Saenz J, Evrard B, Biteau K, Mary C, Teppaz G, Desalle A, Thépenier V, Wilhelm E , Poirier N, Chiffoleau E

AACR 2021 Virtual Annual Meeting II

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.

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 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 ongoing 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

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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, 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.