OSE Immunotherapeutics Invited to Present Preclinical Data on its PD-1/IL-7 Bifunctional Program BiCKI®-IL-7 Cancer Immunotherapy

At American Association for Cancer Research Annual (AACR) Meeting 2022 New Orleans, April 8 – 13

Nantes, France – April 4, 2022, 6:00pm CET – OSE Immunotherapeutics SA (ISIN: FR0012127173; Mnemo: OSE) today announced that the Company is invited to present the latest progress on its bispecific antibody checkpoint inhibitor BiCKI® platform, and in particular on its bifunctional therapy targeting PD-1 and the Interleukin-7 (IL-7) cytokine, BiCKI®-IL-7, during a plenary oral presentation in an educational session dedicated to immunocytokines at the American Association Cancer for Research (AACR) annual meeting to be held on April 8 – 13, 2022 in New Orleans, Louisiana.

BiCKI®-IL-7 is a bifunctional therapy which targets PD-1 and at the same time provides IL-7 cytokine to restore exhausted T cell function, to disarm Treg suppressive activity and to extend stem-like memory T cells able to reconstitute the memory and effector T cells. This immunotherapy has potential to address the high medical need of patients with cancers with primary or secondary resistance [(1)] or that are refractory to immune checkpoint inhibitor treatments. In parallel to the ongoing late-stage preclinical testing, the industrial development of BiCKI®-IL-7 has been recently initiated, representing another critical step in the product's development.

The BiCKI® platform, and in particular the bifunctional therapy BiCKI®-IL-7v, preferentially delivers the IL-7 cytokine at the heart of the tumor microenvironment (TME) where T PD1+ lymphocytes accumulate in response to immunotherapy. This TME-driven IL-7 immunocytokine has a well differentiated biodistribution compared to other cytokines being currently developed.

In addition, the BiCKI®-IL-7v immunocytokine significantly improves the quality and durability of memory T lymphocytes in the tumor microenvironment (with T lymphocyte stem cells without immune exhaustion), this IL-7 T cell-specific profile is very different from other cytokines developed which increase the quantity of T cells while accelerating the exhaustion process of the immune response.

Nicolas Poirier, Chief Scientific Officer of OSE Immunotherapeutics comments: *"We are very proud to share an update on the advancements made with our preclinical immunology product, BiCKI®-IL-7, in an oral session dedicated to an overview of the novel trends in cytokine immunotherapy. This presentation highlights the differentiation of our novel bispecific therapy combining anti-PD1 and IL-7 cytokine and positions it as a high potential asset for cancer patients suffering from immune escape following checkpoint inhibitor treatments."*

(1) *Acquired Resistance to Immune Checkpoint Blockades: The Underlying Mechanisms and Potential Strategies; Zhou et al.; Frontiers in Immunology, 2021*

The details of the presentation are as follows:

« Anti-PD1/IL7v immunocytokine promotes durable T-cell responses and overcomes anti-PD1 resistance »
Session Type: Educational Session
Track(s): Immunology, Drug Development
Session ED015 - Immunocytokines: Strategies for Drug Delivery and Tissue Targeting
April 9, 2022, 2:30 PM - 2:50 PM

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 Immuno-Inflammation. Its balanced first-in-class clinical and preclinical portfolio has a diversified risk profile:

Immuno-Oncology first-in-class products

- **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 in secondary resistance after checkpoint inhibitor failure.
  Other ongoing combination trials sponsored by cooperative clinical research groups in oncology:
  Phase 2 in pancreatic cancer (TEDOPaM), sponsor GERCOR.
  Phase 2 in ovary cancer, in combination with pembrolizumab (TEDOVA), sponsor ARCAGY-GINECO.
  Phase 2 in non-small cell lung cancer in combination with nivolumab, sponsor Italian foundation FoRT.
- **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 and in combination with ezabenlimab (PD-1 antagonist); ongoing expansion Phase 1.
- **OSE-279**, anti-PD1 – advanced preclinical stage.
- **BiCKI®**: bispecific fusion protein platform built on the key backbone component of anti-PD1 combined with a new immunotherapy target (for example: BiCKI®-IL7, preclinical stage) to increase anti-tumor efficacy.

Immuno-Inflammation first-in-class products

- **OSE-127/S95011** (humanized monoclonal antibody antagonist of IL-7 receptor): developed in partnership with Servier; positive Phase 1 results; ongoing Phase 2 in ulcerative colitis (sponsor OSE) and ongoing Phase 2a in Sjögren's syndrome (sponsor Servier).
- **FR104** (anti-CD28 monoclonal antibody): licensing partnership agreement with Veloxis Pharmaceuticals, Inc. in transplantation; ongoing Phase 1/2 in renal transplant (sponsored by the Nantes University Hospital); US IND obtained by Veloxis Pharmaceuticals, Inc. for a clinical trial; Phase 2 planned in an autoimmune disease indication.
- **OSE-230** (ChemR23 agonist mAb): preclinical stage therapeutic agent with the potential to resolve chronic inflammation by driving affected tissues to tissue integrity.

CoVepiT: a prophylactic second-generation vaccine activating cytotoxic T lymphocytes against COVID-19, developed using optimized epitopes from SARS-CoV2 viral proteins, epitopes non impacted by multi-variants. Shows good tolerance and very good level of T cell immune response. In clinical testing, a long-term memory response was confirmed at 6 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 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.