Boehringer Ingelheim and OSE Immunotherapeutics Announce First Patient Dosed in Phase 1 Expansion Trial of SIRPα Antagonist Monoclonal Antibody BI 765063 in combination with anti-PD-1 Antibody Ezabenlimab, in Patients with Advanced Endometrium or Colorectal Tumors

- **Dosing of first patient in the expansion phase triggers a milestone payment of €8 million from Boehringer Ingelheim to OSE Immunotherapeutics.**
- **Data from the dose escalation Step 1 of the Phase 1 trial presented at ASCO and ESMO 2021 indicated that BI 765063 monotherapy or in combination with ezabenlimab was well tolerated and showed promising activity, including one durable partial response in monotherapy and three partial responses in combination in heavily pre-treated solid tumor patients.**

Nantes, France – September 30, 2021, 6:30 p.m. CET - Boehringer Ingelheim and OSE Immunotherapeutics SA (ISIN: FR0012127173; Mnemo: OSE) today announce that the first patient has been dosed in the expansion phase of the Phase 1 clinical trial evaluating BI 765063, a first-in-class monoclonal antibody antagonist of SIRPα, in combination with ezabenlimab, an anti-PD1 monoclonal antibody (BI 754091) in patients with microsatellite stable (MSS) advanced endometrium or colorectal cancer. Both tumors are with a high unmet medical need. BI 765063 is a first-in-class SIRPα inhibitor on the CD47/ SIRPα "Don't eat me" pathway being developed under collaborative agreement between OSE Immunotherapeutics and Boehringer Ingelheim.

Alexis Peyroles, Chief Executive Officer of OSE Immunotherapeutics, said: *"In Step 2 of the Phase 1 trial, we look forward to hopefully confirming the safety and expanding on the early signals of clinical efficacy of BI 765063 in two debilitating tumor types, advanced colorectal and advanced endometrium. This also marks the next planned milestone in our collaboration agreement with Boehringer Ingelheim which provides OSE with a continued stable financial base to steadily grow our first-in-class immuno-oncology pipeline."*

The dose escalation part of the Phase 1 trial (Step 1), evaluating BI 765063 alone and in combination with ezabenlimab, has been completed with a total of 18 patients enrolled in combination. Patients with advanced solid tumours and who failed or were not eligible for standard therapy were enrolled from two prespecified groups: (1) patients who are genetically SIRPα homozygous (V1/V1) or (2) heterozygous (V1/V2). Two dose levels of BI 765063 (18 and 24 mg/kg IV every 3 weeks) were evaluated in combination with ezabenlimab (240 mg IV every 3 weeks).

During the dose escalation, BI 765063 alone or in combination was well tolerated with no haematologic toxicity and the maximum tolerated dose (MTD) was not reached. The recommended Phase 2 dose (24 mg/kg) and optimal treatment schedule of BI 765063 was established with assays determining full receptor occupancy from cycle 1 and using a once every three week dosing schedule. In addition, promising early efficacy of BI 765063 was observed both alone and in combination, especially in advanced hepatocellular carcinoma, endometrium and colorectal cancer, including microsatellite stable (MSS) tumors. Promising early efficacy was observed with one partial response (PR) in monotherapy in a patient with advanced hepatocellular carcinoma and three partial responses in combination in patients with MSS advanced endometrium or colorectal cancer.

The trial expansion aims to further assess preliminary efficacy of BI 765063 in combination with ezabenlimab in two selected tumor types of V1/V1 homogygous patients from whom a clinical benefit has been observed: MSS advanced colorectal cancer (around 30 patients) and MSS advanced endometrium cancer (around 10 patients) whose disease relapsed after standard of care and who received no prior anti-PD-L1 inhibitors.

The study is being conducted by OSE Immunotherapeutics as part of a collaboration and license agreement under which Boehringer Ingelheim obtained exclusive rights to BI 765063. Under the terms of the collaboration and license agreement, dosing of the first patient in expansion of this Phase 1 trial triggers a milestone payment of €8 million to OSE Immunotherapeutics from Boehringer Ingelheim.

ABOUT BI 765063 (formerly OSE-172)

BI 765063 is a monoclonal antibody antagonist of the key myeloid cell checkpoint inhibitor SIRPα. BI 765063 prevents the SIRPα ligand CD47, from binding to SIRPα thereby preventing cellular signalling that can reduce the anti-tumorigenic properties of myeloid cells such as macrophages and dendritic cells. In March 2019, OSE Immunotherapeutics received Clinical Trial Authorization for a Phase 1 study by two health agencies (France and Belgium) to evaluate BI 765063 in patients with advanced solid tumors. The study is conducted by OSE Immunotherapeutics as part of a collaboration and license agreement under which Boehringer Ingelheim obtained exclusive rights to BI 765063, originally signed in April 2018.

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

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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.