OSE Immunotherapeutics to Continue the Clinical Development in Ulcerative Colitis with Full Rights to Lusvertikimab

- **First-in-class Lusvertikimab (OSE-127) is the most advanced anti-IL-7R mAb.**
- **Ongoing clinical Phase 2 trial in Ulcerative Colitis sponsored by OSE Immunotherapeutics after positive futility analysis with the following inflection points:**
  - **End of enrollment: Q3 2023.**
  - **Top line results in induction phase: December 2023.**
  - **First early maintenance data after 6 months of treatment: H1-2024.**
- **OSE Immunotherapeutics retains global and full rights on Lusvertikimab.**
- **Current strategic assessment of medical and market opportunity in Acute Lymphoblastic Leukemia based on positive preclinical efficacy data awarded by the 2022 American Society of Hematology.**

Nantes, France – May 12, 2023, 6:00 p.m. CET – OSE Immunotherapeutics SA (ISIN: FR0012127173; Mnemo: OSE) announced that the Company will complete its clinical Phase 2 study in ulcerative colitis on Lusvertikimab (anti-IL7 receptor first-in-class mAb) having earned the full worldwide rights of the asset. OSE Immunotherapeutics and Servier signed a two-step option license agreement in December 2016. The companies decided to mutually terminate this agreement based on OSE Immunotherapeutics' strategic commitment in Ulcerative Colitis and following Servier's priority portfolio review after the negative results on their exploratory Phase 2a clinical study in the primary Sjögren Syndrome (sponsored by Servier). OSE Immunotherapeutics is hence actively continuing its sponsored international clinical Phase 2 study in Ulcerative Colitis and is exploring additional strategic opportunities in Acute Lymphoblastic Leukemia (ALL).

"Having full ownership on Lusvertikimab provides us with the ability to recapture the value of the asset and capitalize on key strategic opportunities, including foremost its potential in the attractive Ulcerative Colitis therapeutic area. A major inflection point is expected in less than a year with the clinical readout of our international Phase 2 study. We look forward to demonstrating the clinical interest of Lusvertikimab in the short term based on the strong IL-7 biological rationale[1], in an indication with high unmet medical needs, " said Nicolas Poirier, Chief Executive Officer of OSE Immunotherapeutics. *"We highly value the collaboration with Servier who supported us in advancing Lusvertikimab from preclinical research to Phase 2 clinical efficacy study. Together we have generated robust industrial, translational and clinical grounds that position Lusvertikimab as the first anti-IL-7R antagonist program worldwide. We set our target high with the ongoing CoTikiS Phase 2 study in Ulcerative Colitis which explores the potential of Lusvertikimab in both biological naïve and refractory patient populations. This disabling chronic inflammatory bowel disease affects 3.3 million people in the U.S., Europe and Japan[2]. Among them, more than half develop moderate to severe form of the disease requiring biological therapies. Despite new drug approvals these last years, only 25-30% of patients*

benefit from durable remission[3]. The Inflammatory Bowel Disease (IBD) market of roughly 23 billion USD in 2022 is expecting to grow up to 28 billion USD in 2028 [4]. The upcoming Phase 2 top-line results expected in December 2023 represent the major short-term inflection point of the Company with promising durable commercial opportunities thanks to patent exclusivity granted across U.S., Europe, China and Japan. These patents provide protection until at least 2037. Our financial visibility, reinforced until Q2 2024, already includes all the costs necessary to complete this clinical trial ».

OSE Immunotherapeutics and Servier mutually decided to terminate the option license agreement based on OSE Immunotherapeutics' strategic commitment in Ulcerative Colitis and following Servier's priority portfolio review after the negative results of the exploratory Phase 2a clinical trial conducted by Servier in the primary Sjögren Syndrome. This autoimmune disease with high unmet medical needs[5] is a complex pathology mostly characterized by B-Lymphocytes infiltrates for which the role of IL-7 biology still remains uncertain[6]. OSE Immunotherapeutics is highly engaged to continue the Phase 2 trial in Ulcerative Colitis, an indication where the role of T cells and IL-7 biology in the pathophysiology has been widely described. The Company's scientific research teams discovered and published the strong expression of the IL-7R in IBD patients refractory to anti-TNF or anti-integrin therapies[1]. Lusvertikimab (OSE-127) Phase 1 positive results were published in February 2023[7] with a good safety profile showing no signs of lymphopenia, and dose-dependent inhibition of IL-7 pathway. No safety signals have been identified in the primary Sjögren Syndrome study.

The ongoing Phase 2 trial sponsored by OSE Immunotherapeutics is evaluating the efficacy and safety of Lusvertikimab (OSE-127) versus placebo in patients with moderate to severe active Ulcerative Colitis who previously failed or lost response or were intolerant to previous treatment(s). A positive interim futility analysis was observed in the prespecified first 50 patients (i.e., 33% of the total patient enrollment in the study) having completed the induction phase. The upcoming major milestone for this Phase 2 clinical trial is expected in December 2023 with the top-line results after the induction phase (primary endpoint at week 10) and in H1 2024 for the first early assessment in maintenance after 6 months of therapy (*CoTikiS trial: NCT04882007*).

Besides immuno-inflammation, Lusvertikimab (OSE-127) has also demonstrated great therapeutic potential in immuno-oncology through positive efficacy preclinical results in Acute Lymphoblastic Leukemia (ALL), a very aggressive tumor. Novel targeted immunotherapies are urgently needed to address relapsed/refractory (R/R) form of the disease, especially in T-ALL where the need for novel therapies is significant. Based on the promising preclinical results awarded by the American Society of Hematology in 2022 and on the high unmet medical need, OSE Immunotherapeutics' management will explore the strategy forward in this rare disease.

[1] *IL-7 receptor influences anti-TNF responsiveness and T cell gut homing in inflammatory bowel disease, Belarif et al., J Clin Invest. 2019*

[2] *EvaluatePharma*

[3] *Drugs Context. 2019; 8: 212572 –doi: 10.7573/dic.212572*

[4] *EvaluatePharma*

[5] *Addressing the clinical unmet needs in primary Sjögren's Syndrome through the sharing, harmonization and federated analysis of 21 European cohorts, Pezoulas et al., Comput Struct Biotechnol J., 2022*

[6] *The Multiple Roles of B Cells in the Pathogenesis of Sjögren's Syndrome, Du W et al. Front. Immunol., 08 June 2021 Sec. B Cell Biology*

[7] *First-in-Human Study in Healthy Subjects with the Non-Cytotoxic 1 Monoclonal Antibody OSE-127, a Strict Antagonist of the IL-7Rα, Journal of Immunology, Feb. 2023*

ABOUT OSE Immunotherapeutics

OSE Immunotherapeutics is a biotech company dedicated to developing first-in-class assets in immuno-oncology and immuno-inflammation. The Company's current well-balanced first-in-class clinical pipeline includes:

- **Tedopi®** (immunotherapy activating tumor specific T-cells, off-the-shelf, neoepitope-based): this cancer vaccine is the Company's most advanced product; positive results from the Phase 3 trial (Atalante 1) in Non-Small Cell Lung Cancer patients in secondary resistance after checkpoint inhibitor failure. Other Phase 2 trials, sponsored by clinical oncology groups, of Tedopi® in combination are ongoing in solid tumors.
- **OSE-279** (anti-PD1): ongoing Phase 1/2 in solid tumors or lymphomas (first patient included). OSE-279 is the backbone therapy of the BiCKI® platform.
- **OSE-127** - *lusvertikimab* (humanized monoclonal antibody antagonist of IL-7 receptor); ongoing Phase 2 in Ulcerative Colitis (sponsor OSE Immunotherapeutics); ongoing preclinical research in leukemia (OSE Immunotherapeutics).
- **FR-104/VEL-101** (anti-CD28 monoclonal antibody): developed in partnership with Veloxis Pharmaceuticals, Inc. in transplantation; ongoing Phase 1/2 in renal transplant (sponsor Nantes University Hospital); Phase 1 ongoing in the US (sponsor Veloxis Pharmaceuticals, Inc.).
- **OSE-172/BI 765063** (anti-SIRPα monoclonal antibody on CD47/SIRPα pathway) developed in partnership with Boehringer Ingelheim in advanced solid tumors; positive Phase 1 dose escalation results in monotherapy and in combination, in particular with anti-PD-1 antibody ezabenlimab; international Phase 1b ongoing clinical trial in combination with ezabenlimab alone or with other drugs in patients with recurrent/metastatic head and neck squamous cell carcinoma (HNSCC) and hepatocellular carcinoma (HCC).

OSE Immunotherapeutics expects to generate further significant value from its two proprietary drug discovery platforms, which are central to its ambitious goal to deliver next-generation first-in-class immunotherapeutics:

- **BiCKI® platform** focused on immuno-oncology (IO) is a bispecific fusion protein platform built on the key backbone component of anti-PD1 combined with a new immunotherapy target to increase anti-tumor efficacy. BiCKI-IL-7 is the most advanced BiCKI® candidate targeting anti-PD1xIL-7.
- **Myeloid platform** focused on optimizing the therapeutic potential of myeloid cells in IO and immuno-inflammation (I&I). **OSE-230** (ChemR23 agonist mAb) is the most advanced candidate generated by the platform, with the potential to resolve chronic inflammation by driving affected tissues to tissue integrity.

Additional information about OSE Immunotherapeutics assets is available on the Company's website: www.ose-immuno.com
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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 May 2, 2023, including the annual financial report for the fiscal year 2022, 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.