OSE Immunotherapeutics Announces Publication in *Frontiers in Immunology* on OSE-230, its Novel Agonist Therapy in Chronic Inflammation

Nantes, France – July 19, 2023, 6:00pm CET – OSE Immunotherapeutics SA (ISIN: FR0012127173; Mnemo: OSE) today announced the publication of its latest peer-reviewed results on pro-resolutive monoclonal antibody OSE-230, a novel and innovative approach in the management of the resolution of chronic and severe inflammation, in the leading journal *Frontiers in Immunology**.

The article, entitled: *"ChemR23 activation reprograms macrophages toward a less inflammatory phenotype and dampens carcinoma progression"*, reports on ChemR23 expression by Tumor-Associated Macrophages (TAM) and the use of tumor models to explore OSE-230's pro-resolutive and non-immunosuppressive activity in a chronic severe inflammatory situation associated with cancer and metastasis.

OSE-230's target, ChemR23, also known as chemerin chemokine-like receptor 1 (CMKLR1), a G-protein coupled receptor (GPCR), is expressed by human TAM, the most frequent infiltrating immune cells in tumors known to modulate pro-tumoral chronic inflammation.

The research demonstrated the reprogramming of TAM through the activation of ChemR23 by OSE-230. ChemR23 receptor strongly controls macrophage phenotype and its activation by OSE-230 results in major remodeling of the tumor immune microenvironment by limiting macrophages' immunosuppressive functions, activating T lymphocyte activity as well as modifying the metastatic niche.

Aurore Morello, Head of Research of OSE Immunotherapeutics, comments: *"We are very pleased with this publication on OSE-230 in the journal 'Frontiers in Immunology', a leading journal in its field which shares impactful immunological discoveries. The research conducted jointly with the CRCI²NA laboratory (Nantes, Principal investigators: Christophe Blanquart and Sophie Barille) has demonstrated the long-term efficacy of OSE-230 based on the strong expression of ChemR23 in a high inflammatory and severe chronic model. With occurrence of metastases reduced and overall survival extended, these data support the durability of OSE-230's agonist effect on chronic and severe inflammation. This makes OSE-230 a first-in-class candidate for IND-enabling studies and opens its development pathway in various chronic inflammatory diseases with significant advantage over immunosuppressive therapies".*

** ChemR23 activation reprograms macrophages toward a less inflammatory phenotype and dampens carcinoma progression, Frontiers Immunology Frontiers, Front. Immunol., 19 July 2023, Sec. Cancer Immunity and Immunotherapy, Volume 14 - 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.