OSE Immunotherapeutics Expands its Collaboration with MAbSilico to Use Artificial Intelligence to Accelerate Drug Development of Novel Antibody Therapeutics

- **OSE is advancing an "Immunotherapy 2.0" future by leveraging MAbSilico's artificial intelligence-powered software solutions and professional services to accelerate and further optimize the development of new therapeutic monoclonal antibodies.**
- **OSE and MAbSilico joined their efforts to demonstrate the power of a fully computational *in silico* Antibody Discovery and Design platform. The expanded collaboration agreement will now be applied to 10 antibody programs.**

Nantes, France, January 28, 2021 6:00PM CET – OSE Immunotherapeutics (ISIN: FR0012127173; Mnemo: OSE) today announced a new collaboration agreement with MAbSilico, a deep technology innovative TechBio located in Tours, France, to use artificial intelligence (AI)-based software for therapeutic monoclonal antibody drug development.

Nicolas Poirier, Chief Scientific Officer of OSE Immunotherapeutics, stated*: "Expansion of our collaboration with MAbSilico to ten additional programs reflects our shared conviction that we can meaningfully improve and accelerate drug discovery, by pairing the knowledge and expertise of our R&D teams with the innovative technologies offered by MAbSilico. This perfectly complements the Company's evolving business strategy to build a competitive development engine and bring more products into the clinic, hence accelerating and expanding our clinical stage portfolio in immunotherapy."*

OSE Immunotherapeutics and MAbSilico entered into an initial agreement early 2020 to apply innovative AI-based solutions to six programs aiming at accelerating the characterization and optimization of monoclonal antibodies and therapeutic proteins for OSE to investigate as therapeutic agents.

Through this expanded agreement, both companies reinforce and extend the scope of the collaboration to use MAbSilico software for ten additional development programs of antibody drugs in immuno-oncology, inflammation and autoimmune diseases for OSE.

Furthermore, both companies are bringing together their unparalleled expertise in the field of AI and antibody-based therapies to develop a disruptive computational *in silico* Antibody Discovery and Design platform combining OSE's database and expertise with MAbSilico's AI-tools.

MAbSilico software, including AI, numerical simulation and data mining, is being used to guide therapeutic antibody discovery, help reduce the risk of failure and accelerate the preclinical

development process of antibody drug candidates, with the objectives of speeding up the start of clinical testing.

Vincent Puard, Chief Executive Officer of MAbSilico, stated: *"This new agreement for additional antibody programs in less than a year validates that MAbSilico AI-based software is a key advantage for biotech and pharma companies to accelerate their discovery programs. A great example is the collaboration between MAbSilico and OSE for CoVepiT, OSE's prophylactic multi-target vaccine against COVID-19. MAbSilico peptide modeling identified vaccine target epitopes in only two weeks, helping OSE move quickly into preclinical and human ex vivo studies in August 2020. The expertise of OSE Immunotherapeutics is an added value for MAbSilico, helping accelerate and secure the demonstration of the value our AI-driven technologies provide to early-stage drug development. Our team is proud to support them in their digital revolution of the antibody-based drug development process."*

This new collaboration between OSE Immunotherapeutics and MAbSilico aims to:

- Accelerate the development of OSE's "Immunotherapy 2.0" drug candidates by using AI, including machine learning and algorithms, at a very early stage in the process of monoclonal antibody discovery and optimization (AI-driven drug discovery);
- Demonstrate how *in silico* software for computational antibody discovery and design can disrupt traditional drug development processes and timelines, from the selection of a promising epitope to the optimization of the final humanized lead. The very complementary knowledge of OSE's antibody expertise, knowledge and databases with MAbSilico's AI expertise and antibody-dedicated deep tech technologies gathered in its integrated software, MAbFactory, is a revolution for antibody development.

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 post checkpoint inhibitor failure. In Phase 2 in pancreatic cancer (TEDOPaM, sponsor GERCOR) in combination.
- **CoVepiT**: a prophylactic vaccine against COVID-19, developed using SARS-CoV-2 optimized neo-epitopes. Positive preclinical and human ex vivo results in August 2020, clinical trial expected to start in Q1 2021.

Immuno-oncology platform

- **BI 765063** (OSE-172, anti-SIRPα mAb on SIRPα/CD47 pathway): developed in partnership with Boehringer Ingelheim; myeloid checkpoint inhibitor in Phase 1 in advanced solid tumors.
- **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): positive Phase 1 results; ongoing Phase 1/2 in renal transplant, Phase 2-ready asset in a niche indication in autoimmune diseases.
- **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 2 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.
  Due to the COVID-19 crisis, accrual of new patients in the clinical trial TEDOPaM is temporarily suspended and initiation timelines for both Phase 2 trials of OSE-127/S95011 could be impacted during the coming months.

For more information:
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ABOUT MAbSilico

MAbSilico is a TechBio company developing and commercializing AI-based software for antibody discovery and development. The software platform can be used for any antibody format, for therapeutic and biomarker purposes. Only requiring the antibodies sequences and the target name, MAbSilico software supports biologists to select, after simulation modeling in minutes, the best antibody candidate. The AI-based solutions are on the shelf and have been validated with biology assays through a formal approach.

Antibody selection:

- MAbBinning allows the prediction of the pairwise competition within a collection of antibodies against a given target, and the prediction of the epitopes of antibodies. The 3D structure of the target or a close homolog is required.

Antibody characterization:

- MAbTope is used to perform the modeling of the epitope of an antibody on its target. The customer receives the epitope, the paratope and 3D models of the partners interaction.

Antibody optimization:

- MAbCross allows forecasting of the off targets by comparing a given antibody with MAbSilico database.
- MAbHuman is used to identify the best human framework for CDR grafting (58 million human sequences in our database).

For more information:
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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 2020, including the annual financial report for the fiscal year 2019, 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.