

OSE Immunotherapeutics Announces Artificial Intelligence Antibody Drug Development Collaboration with MAbSilico

- Agreement capitalizes on artificial intelligence and deep learning to develop therapeutic monoclonal antibodies, including novel bispecific antibodies (BiCKI® platform)
- Collaboration runs for 3 years and will be used for 6 antibody programs

Nantes, France, February 12, 2020, 6:00PM CET – OSE Immunotherapeutics (ISIN: FR0012127173; Mnémo: OSE), today announced a new collaboration agreement with deep technology innovative start-up MAbSilico, located in Tours, France, to use artificial intelligence (AI)-based solutions for therapeutic antibody drug development.

OSE Immunotherapeutics plans to incorporate innovative problem-solving solutions like AI for the development of new monoclonal antibodies. MAbSilico solutions have already been tested and validated by OSE Immunotherapeutics and will be used for six antibody programs, including novel bispecific antibodies. AI and numerical simulation can guide therapeutic antibody discovery, help reduce the risk of failure and accelerate the pre-clinical development process of these drug candidates before clinical tests.

Nicolas Poirier, Chief Scientific Officer of OSE Immunotherapeutics, stated: *“We are delighted with this collaboration, we constantly strive to introduce innovative technologies to develop first-in-class products in immuno-oncology and autoimmune diseases. Due to the devastating nature of these diseases, our development strategies need to be accelerated and artificial intelligence solutions for drug discovery offered by MAbSilico can be a great asset to achieve this goal.”*

While all MAbSilico’s commercialized solutions are included in this three-year agreement, OSE Immunotherapeutics also gains early access to MAbSilico’s SaaS (Software as a Service) and technologies in development including those for the conception of therapeutic antibodies optimized for bioproduction. OSE provides internal data to MAbSilico in order to feed their algorithms in development and deliver new technology faster.

Vincent Puard, Chief Executive Officer of MAbSilico, stated: *“It is a pleasure to start this collaboration with one of the top French Biotech. This partnership demonstrates the need to fasten new AI-based solutions for antibody drug discovery. We believe that with the trust and collaboration of OSE, we will accelerate the release of our software and new technologies.”*

ABOUT OSE Immunotherapeutics

OSE Immunotherapeutics is a clinical-stage biotechnology company focused on developing and partnering therapies to control the immune system for immuno-oncology and autoimmune diseases. The company has a diversified first-in-class clinical portfolio consisting of several scientific and technological platforms including neoepitopes and agonist or antagonist monoclonal antibodies, all ideally positioned to fight cancer and autoimmune diseases. The most advanced therapeutic-candidate, Tedopi®, is a proprietary combination of 10 neo-epitopes aimed at stimulating T-lymphocytes and is currently in Phase 3 development in non-small cell lung cancer (NSCLC) in patients in failure after checkpoint inhibitor treatment (anti PD-1 and anti PD-L1) and in

Phase 2 testing in pancreatic cancer in combination with checkpoint inhibitor Opdivo®. BI 765063 (OSE-172) (anti-SIRPa monoclonal antibody) is under a license and collaboration agreement with Boehringer Ingelheim; this checkpoint inhibitor is currently under Phase 1 clinical trial in advanced solid tumors. BiCKI® is a bispecific fusion protein platform built on the key backbone component anti-PD-1 (OSE-279) and targeting innovative targets. FR104 (an anti-CD28 mAb) has successfully completed Phase 1 testing and has potential to treat autoimmune diseases. OSE-127 (monoclonal antibody targeting the CD127 receptor, the alpha chain of the interleukin-7 receptor) is partnered with Servier under an option agreement up to the completion of a Phase 2 clinical trial planned in autoimmune bowel diseases; in parallel, Servier plans a development in the Sjögren syndrome. The Phase 1 clinical phase of OSE-127 is completed and has shown positive results; planned Phase 2 studies in ulcerative colitis and Sjögren's syndrome to start in 2020.

For more information: <https://ose-immuno.com/en/>
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About MABSilico

MABSilico is a deeptech company, founded in September 2017, which implements computational solutions for the development of therapeutic antibodies, bio-drugs used in an increasing number of pathologies, including oncology.

MABSilico's objective is to propose a software suite that creates a formal approach of antibody development, reducing the risks of failure and the duration of pre-clinical steps, as well as strengthening intellectual protection. Conventional approaches for the discovery and pre-clinical development take two to three years, MABSilico technologies allow shrinking this time to a few weeks.

The technology developed by MABSilico is the result of more than twenty years of French scientific research, in laboratories affiliated to INRA and CNRS. It is based on artificial intelligence (AI), machine learning (ML), and has partly been funded by the Loire-Valley Region and the MABImprove Labex. MABSilico tools have been the subjects of more than ten scientific publications and are covered by an international patent.

The MABSilico team consists in five persons, including three co-founders and co-inventors of the methods. It is located on the INRA Loire-Valley site.

Since 2018, MABSilico has been commercializing its tools in France, Europe and USA, with more than 20 clients: academics, startups and biotechs.

MABSilico is looking forward to extend its commercial effort in Europe and to hire ten persons in Tours for positions in software development, data science, bioinformatics, biology and business development. The implementation of our solutions will be made in close link with our clients to best meet their needs.

More information at www.mabsilico.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 Reference Document filed with the AMF on 26 April 2019, including the annual financial report for the fiscal year 2018, 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.