



Boehringer Ingelheim and OSE Immunotherapeutics Announce Global Immuno-Oncology Partnership to Develop a Pioneering Checkpoint Inhibitor for the Treatment of Advanced Solid Tumors

- Boehringer Ingelheim and OSE Immunotherapeutics enter into a global license and collaboration agreement in immuno-oncology to develop OSE-172, a novel checkpoint inhibitor antibody targeting myeloid lineage cells
- Assuming all milestones are met, OSE stands to receive more than €1.1 billion
- OSE-172, an anti-SIRP-alpha monoclonal antibody, is currently in late stage preclinical development with potential in various cancers
- With this collaboration, Boehringer Ingelheim strengthens a core pillar of its cancer immunology and immune modulation strategy focusing on novel approaches to treat cancer

**Ingelheim, Germany and Nantes, France – 4 April, 2018, 6:00 p.m. CET** - Boehringer Ingelheim and OSE Immunotherapeutics, a biotechnology company focused on the development of innovative immunotherapies, today announced a collaboration and exclusive worldwide collaboration and license agreement to jointly develop OSE-172, a SIRP-alpha antagonist targeting myeloid lineage cells.

SIRP-alpha is a receptor expressed by myeloid lineage cells such as Dendritic Cells (DCs), tumorassociated macrophages (TAMs) and Myeloid-Derived Suppressor Cells (MDSCs). In targeting SIRP-alpha, OSE-172 prevents the ligand CD47 from binding to and triggering the cellular inhibitory effects of SIRP-alpha. OSE-172 has the potential to enhance anti-tumor immunity by improving T cell activity through enhancement of DC antigen presentation functionality, potentiating the phagocytic and inflammatory properties of macrophages in the tumor microenvironment and enabling differentiation of MDSCs to an effector state.

"This partnership with Boehringer Ingelheim is a real recognition of the value of our innovative approach to treating cancer and will create an exciting new alliance to fuel the phase 1 development of OSE-172," said Dr. Dominique Costantini, CEO of OSE Immunotherapeutics. "Boehringer Ingelheim's expertise and insights will be invaluable as we step up the clinical development and work to commercialize this new treatment paradigm."

"We are excited to partner with OSE Immunotherapeutics to develop this promising, novel cancer immunotherapy," said Jonathon Sedgwick, Ph.D., Global Head Cancer Immunology & Immune Modulation Research at Boehringer Ingelheim. "A key area of focus is the identification of drugs that target myeloid cell immune regulatory receptors of which SIRP-alpha is a leading example. We are dedicated to developing ground-breaking, first-in-class therapies that can transform the lives of patients and help win the fight against cancer."

Boehringer Ingelheim has acquired the global rights to develop, register and commercialize OSE-172, a monoclonal antibody targeting SIRP-alpha which is expressed in myeloid lineage cells, as part of their continued commitment to research and innovation in immuno-oncology. Under the terms of the agreement, OSE Immunotherapeutics will receive a €15 million upfront payment from





Boehringer Ingelheim, and potential additional short-term milestones of up to €15 million upon initiation of a phase 1 clinical study. OSE Immunotherapeutics stands to receive more than €1.1 billion upon reaching pre-specified development, commercialization and sales milestones, plus royalties on worldwide net sales.

### **About OSE Immunotherapeutics SA**

OSE Immunotherapeutics is a biotechnology company focused on the development of innovative immunotherapies for immune activation and regulation in the fields of immuno-oncology and autoimmune diseases. Neoepitopes innovation (Tedopi®) is today in Phase 3 in advanced lung cancers (NSCLC) after Checkpoint Inhibitors failure (anti PD-1 and anti PD-L1). An option to license was exercised in July 2016 by Janssen Biotech to continue clinical development of FR104 (an anti CD28 mAb) in auto-immune diseases after positive phase 1 results. A 2-step license option was signed in 2017 with Servier Laboratories to develop OSE-127 (Effi-7) up to the completion of a phase 2 clinical trial planned in autoimmune bowel disease and Sjogren's syndrome. The company has several scientific and technological platforms: neoepitopes, agonist or antagonist monoclonal antibodies, ideally positioned to fight cancer and autoimmune diseases. Its first-in-class clinical portfolio offers a diversified risk profile.

For more information, please visit: <a href="http://ose-immuno.com/en/">http://ose-immuno.com/en/</a>.

#### **About Boehringer Ingelheim**

Innovative medicines for people and animals have for more than 130 years been what the research-driven pharmaceutical company Boehringer Ingelheim stands for. Boehringer Ingelheim is one of the pharmaceutical industry's top 20 companies and to this day remains family-owned. Day by day, some 50,000 employees create value through innovation for the three business areas: human pharmaceuticals, animal health and biopharmaceutical contract manufacturing. In 2016, Boehringer Ingelheim achieved net sales of around 15.9 billion euros. With more than three billion euros, R&D expenditure corresponds to 19.6 percent of net sales.

Social responsibility comes naturally to Boehringer Ingelheim. That is why the company is involved in social projects such as the "Making More Health" initiative. Boehringer Ingelheim also actively promotes workforce diversity and benefits from its employees' different experiences and skills. Furthermore, the focus is on environmental protection and sustainability in everything the company does.

More information about Boehringer Ingelheim can be found on <a href="http://www.boehringer-ingelheim.com">http://www.boehringer-ingelheim.com</a> ingelheim.com or in our annual report: <a href="http://annualreport.boehringer-ingelheim.com">http://annualreport.boehringer-ingelheim.com</a>.

### **About Boehringer Ingelheim in Oncology**

Cancer takes away loved ones, time and untapped potential. At Boehringer Ingelheim we are providing new hope for patients by taking cancer on. We are collaborating with the oncology community to deliver scientific breakthroughs to transform the lives of patients. Our primary focus is in lung and gastrointestinal cancers, with the goal of delivering breakthrough, first-in-class treatments that can help win the fight against cancer. Our commitment to innovation has resulted in pioneering treatments for lung cancer and we are advancing a unique pipeline of cancer cell directed agents, immune oncology therapies and intelligent combination approaches to help combat many cancers.





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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 28 April 2017 under the number R.17-038, including the annual financial report for the fiscal year 2016, 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.

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