PRESS RELEASE

Onxeo Receives Notice of Intent to Grant a New Patent Enhancing the Protection in Europe of AsiDNA™ Combined with PARP Inhibitors

This new patent protects the method of use of AsiDNA™ in combination with PARP inhibitors in the treatment of HR-proficient cancers

Paris (France), October 22, 2020 – 6 pm CEST - Onxeo S.A. (Euronext Paris, NASDAQ Copenhagen: ONXEO), hereafter "**Onxeo**" or "**the Company**", a clinical-stage biotechnology company specializing in the development of innovative drugs targeting tumor DNA Damage response (DDR), in particular against rare or resistant cancers, today announced that it has received from the European Patent Office (EPO) a notice of intent to grant a patent which strengthens the protection in Europe of AsiDNA™, its first-in-class inhibitor of tumor DNA repair in combination with PARP inhibitors (PARPi). This patent protects in particular the method of use of AsiDNA™ in combination with PARP inhibitors in the treatment of certain cancers for which the DNA repair pathway via homologous recombination (HR) is not impaired or deficient, these HR-proficient cancers being mostly insensitive to treatment with PARP inhibitors.

This patent will provide a term of protection until 2036. It completes the already robust set of patent families protecting AsiDNA™ and its related compounds, alone or in combination.

"To be fully effective, PARPi are dependent on the presence of mutations such as BRCA mutations that inactivate DNA repair via the homologous recombination pathway. The granted patent is based on the fact that AsiDNA™ is able, through its original mechanism of action, to block all DNA repair pathways, including the homologous recombination pathway. AsiDNA™ thus recreates a context of "HR deficiency" allowing PARPi to be effective on tumors that are normally not sensitive to PARPi," **commented Françoise Bono, Chief Scientific Officer of Onxeo.**

"This activity reinforces AsiDNA™'s range of potential indications and particularly its interest in association with a PARPi. We have shown in preclinical studies and started the clinical demonstration that AsiDNA™ has the ability to reverse the resistance acquired to a PARP inhibitor in patients eligible for these treatments. Now, another complementary application of AsiDNA™ appears, in combination with PARP inhibitors *in HR-proficient patients with little or no sensitivity to PARPi alone."* **added Olivier de Beaumont, Chief Medical Officer of Onxeo.**

The DNA repair pathways, BRCA-dependent homologous recombination pathway and PARP pathway, are complementary and essential for tumor cell survival and proliferation. If one pathway is deficient (homologous recombination by BRCA mutation) and the other is blocked by a PARP inhibitor, the cell dies (synthetic lethality). PARPi have demonstrated a real clinical benefit[1], particularly in the treatment of ovarian cancer with BRCA mutations, but this benefit is much reduced, or even insignificant, when homologous recombination remains active in about 50% of patients[2]. Extending the efficacy of PARP inhibitors to this important group would represent a major therapeutic opportunity for these patients whose options are currently limited.

[1] Moore et al. N Engl J Med 2018; 379:2495-2505

[2] Zeimet, A.G., Wieser, V., Knoll, K. et al. PARP inhibitors in the treatment of ovarian cancer. memo (*Magazine of European Medical Oncology)* 13, 198–201 (2020).

About Onxeo

Onxeo (Euronext Paris, NASDAQ Copenhagen: ONXEO) is a clinical-stage biotechnology company developing innovative oncology drugs targeting tumor DNA-binding functions through unique mechanisms of action in the sought-after field of DNA Damage Response (DDR). The Company is focused on bringing early-stage first-in-class or disruptive compounds from translational research to clinical proof-of-concept, a value-creating inflection point appealing to potential partners.

platON™ is Onxeo's proprietary chemistry platform of oligonucleotides acting as decoy agonists, which generates new innovative compounds and broaden the Company's product pipeline.

AsiDNA™, the first compound from platON™, is a first-in-class, highly differentiated DNA Damage Response (DDR) inhibitor based on a decoy and agonist mechanism acting upstream of multiple DDR pathways. Translational research has highlighted the distinctive properties of AsiDNA™, notably its ability to abrogate tumor resistance to PARP inhibitors regardless of the genetic mutation status. AsiDNA™ has also shown a strong synergy with other tumor DNA-damaging agents such as chemotherapy and PARP inhibitors. The DRIIV-1 (DNA Repair Inhibitor-administered IntraVenously) phase I study has evaluated AsiDNA™ by systemic administration (IV) in advanced solid tumors and confirmed the active doses as well as a favorable human safety profile. The ongoing DRIIV-1b extension study is assessing the safety and efficacy of a 600 mg dose of AsiDNA™ in combination with carboplatin and then with carboplatin and paclitaxel, in patients with solid tumors who are eligible for such treatments. Preliminary results from the first cohort with carboplatin alone showed good tolerability, stabilization of the disease and an increase in the duration of treatment compared to previous treatments.

OX401 is a new drug candidate from platON™, optimized to be a next-generation PARP inhibitor acting on both the DNA Damage Response and the activation of immune response, without inducing resistance. OX401 is undergoing preclinical proof-of-concept studies, alone and in combination with immunotherapies.

For further information, please visit www.onxeo.com.

Forward looking statements

This communication expressly or implicitly contains certain forward-looking statements concerning Onxeo and its business. Such statements involve certain known and unknown risks, uncertainties and other factors, which could cause the actual results, financial condition, performance or achievements of Onxeo to be materially different from any future results, performance or achievements expressed or implied by such forward-looking statements. Onxeo is providing this communication as of this date and does not undertake to update any forward-looking statements contained herein as a result of new information, future events or otherwise. For a discussion of risks and uncertainties which could cause actual results, financial condition, performance or achievements of Onxeo to differ from those contained in the forward-looking statements, please refer to chapter 3 "Risk Factors" ("*Facteurs de Risque*") of the Company's universal registration document filed with the *Autorité des marchés financiers* on April 27, 2020 under number D.20-0362, which is available on the websites of the *Autorité des marchés financiers* (www.amf-france.org) an the Company (www.onxeo.com).

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