PRESS RELEASE

Onxeo to Present New Preclinical Data at AACR 2020 Confirming the Ability of AsiDNA™ to Reverse Cancer Resistance to PARPi

Paris (France), Mai 19, 2020 – 5.45 pm CEST - Onxeo S.A. (Euronext Paris, NASDAQ Copenhagen: ONXEO), ("**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 the presentation of preclinical data supporting the differentiated ability of AsiDNA™, its first-in-class DNA Damage Response (DDR) inhibitor, to reverse resistance to PARP inhibitors (PARPi) by preventing death-tolerant cells (DTC) regrowth. These promising results will be presented in an e-posters session during the American Association for Cancer Research (AACR) annual meeting which, given the COVID-19 context, will be held virtually on June 22-24, 2020.

Françoise Bono, PhD, Chief Scientific Officer of Onxeo, commented*: "We continue to strengthen our understanding of AsiDNA™'s unique mechanism of action and have generated new data demonstrating its ability to specifically target drug-tolerant or persistent tumor cells that result in resistance to targeted therapies, and in particular, as we are demonstrating for the first time in this study, resistance to PARP inhibitors. We are delighted to be able to present at this prestigious oncology-focused meeting this new study on the effect of AsiDNA™ on these persistent cells when combined with PARP inhibitors. These results add to AsiDNA™'s strong preclinical file, reinforce the legitimacy of its current development in the clinical setting and confirm its interest and value in our Company's portfolio."*

These new data show for the first time that PARPi resistance can be caused by drug-tolerant cells, and that the addition of AsiDNA™ to PARP inhibitors prevents the regrowth of these cells, thereby completely and irreversibly abolishing the emergence of resistance in ovarian tumor cells.

The results from this study are extremely encouraging for the upcoming Phase 1b/2 REVocan study, combining AsiDNA™ with niraparib in the clinical setting in recurrent ovarian cancer, which is expected to start in the second half of 2020. These data clearly reinforce AsiDNA™'s interest in the fight against resistance, which is the main challenge in cancer treatment today.

Session: PO.ET03.04 - Mechanisms of sensitivity and resistance to DNA damage repair targeting

Date/ Time: June 22, 2020 - 9:00 AM - 6:00 PM (U.S. Eastern Daylight Time -EDT)

E-poster: 4078 / 8

Click on this link to read the abstract: **Acquired resistance to PARP inhibitors evolves from drug-tolerant persister cells vulnerable to AsiDNA™.**

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.

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).

Contacts

Onxeo
Valerie Leroy,
Investor Relations
investors@onxeo.com
+33 1 45 58 76 00

Media Relations
Nicolas Merigeau
NewCap
onxeo@newcap.eu
+33 1 44 71 94 98

Investor Relations / Strategic Communication
Dušan Orešanský / Emmanuel Huynh
NewCap
onxeo@newcap.eu
+33 1 44 71 94 92

Investor Relations US
Brian Ritchie
LifeSci Advisors
britchie@lifesciadvisors.com
+1 212 915 2578