PRESS RELEASE

Onxeo Announces Enrollment of First Patient in Phase Ib/II Study Revocan

- **Revocan is designed to evaluate the abrogation by AsiDNA™ of tumor resistance to a PARP inhibitor in relapsed ovarian cancer**
- **First results from Revocan are expected early 2021**

Paris (France), October 21, 2020 – 7 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 a new milestone in the clinical development of AsiDNA™ with the treatment of the first patient in the Revocan[1] phase 1b/2 study designed to evaluate the effect of AsiDNA™, Onxeo's first-in-class DDR inhibitor, on the acquired resistance to PARP inhibitor (PARPi) niraparib for second line maintenance treatment of relapsed ovarian cancer. First results from this study are expected in early 2021.

Globally, primary and acquired drug resistance and the resulting ineffectiveness of drug treatments are responsible for up to 90% of cancer-related deaths[2]. Acquired resistance to targeted therapies such as PARPi is a major concern in oncology: most, if not all, patients will eventually develop such a resistance[3]. Moreover, a new challenge has recently emerged for clinicians treating ovarian cancer patients: cross-resistance between PARP inhibitors and platinum, when resistance to PARPi impairs the efficacy of the subsequent chemotherapy[4], especially after relapse, which occurs in 70% of these patients[5].

"Beyond tolerability outcomes, the Revocan clinical trial aims to provide the proof-of-concept of AsiDNA™'s ability, when added to a PARP inhibitor, to reverse acquired resistance to this otherwise very effective treatment. Revocan has been designed based on successful in-vivo experiments which closely mirrored its clinical protocol. Provided that the clinical study delivers the same positive results, we expect AsiDNA™ to become the first drug to address the critical challenge of acquired drug resistance." said **Olivier de Beaumont, Chief Medical Officer of Onxeo**. *"This proof-of-concept study would also pave the way for further clinical trials of AsiDNA™ in combination with other targeted therapies, in major indications with high unmet needs. This unique effect of AsiDNA™ on tumor resistance to treatment would address a major concern to oncologists and provide patients with a novel therapeutic option to better control their disease."*

The study plans to enroll up to 26 platinum-sensitive patients who have been treated with niraparib as a second-line maintenance therapy for at least six months, and who experience an elevation in CA 125, a well-established biomarker of ovarian cancer resistance to treatment. CA 125 is routinely measured in standard clinical practice and its rise is correlated to an impending disease progression, later confirmed by scan according to RECIST[6] criteria.

Led by Patricia Pautier, medical oncologist at Gustave Roussy (Paris, France) and principal investigator, the trial aims to demonstrate that the addition of AsiDNA™ to PARPi niraparib, when CA 125 has started to rise, leads to a significant and durable reduction of this biomarker, corresponding in a delay in the occurrence of tumor resistance. This would in turn results in stopping or slowing disease progression, thereby delaying the next treatment line as well as potentially increasing its efficacy. Progression-free survival and overall survival will also be assessed as longer term efficacy outcomes.

The first patient in Revocan was treated at Gustave Roussy, the study sponsor under a clinical research agreement concluded with Onxeo in early 2020. Two other institutions[7] are expected to start recruiting shortly. Additional centers, part of Arcagy Gineco, the French reference network for gynaecological cancers, will also participate into the study.

References

[1] **Revocan** = REV (Reversion of resistance) – OC (in Ovarian Cancer) – A (with AsiDNA™) – N (and Niraparib)

[2] Wang X, Zhang H, Chen X. Drug resistance and combating drug resistance in cancer. *Cancer Drug Resist* 2019;2:141-160.

[3] Klotz, D.M., Wimberger, P. Overcoming PARP inhibitor resistance in ovarian cancer: what are the most promising strategies. Arch Gynecol Obstet (2020)

[4] Leary A. and Frenel JS. Communications at ESMO 2020 – Session ID 261: Mini Oral - Gynaecological cancers 1; Presentations ID 813MO & 5012 – Friday 18 September 2020.

[5] Ovarian Cancer Research Alliance (OCRA): https://ocrahope.org/patients/about-ovarian-cancer/recurrence/

[6] RECIST (Response Evaluation Criteria in Solid Tumours)

[7] Western Cancer Institute (Institut de Cancérologie de l'Ouest – Nantes/St Herblain) & University Hospital Center of Lyon (Hospices Civils de Lyon – CHU Lyon Sud)

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).

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