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ONO enters into license agreement with Celyad for its allogeneic CAR T-cell therapy (NKR-2)

ONO PHARMACEUTICAL CO., LTD. (Osaka, Japan; President, Representative Director and CEO, Gyo Sagara; “ONO”) today announced that it has entered into an exclusive license agreement with Celyad (Mont-Saint-Guibert, Belgium) to develop and commercialize Celyad’s NKG2D-ligand targeting allogeneic CAR T-cell therapy, NKR-2, in Japan, South Korea and Taiwan.

ONO will pay to Celyad an upfront payment of JPY 1.25 billion at closing of the agreement and a maximum total of JPY 30.075 billion thereafter milestone payments based on development stage as well as upon the achievement of specified net sales threshold. The agreement also calls for double digit royalties on net sales in ONO’s territories.

Under the terms of the agreement, ONO will be responsible for future development and commercialization in its territories. Celyad retains all the right of allogeneic NKR-2 in the rest of the world. Both companies will also explore the opportunity to collaborate to run global registration trials and combination trials. In addition, Celyad grants to ONO an exclusive option to license for development and commercialization of its autologous NKR-2 in the above ONO’s territories.

Gyo Sagara, President, Representative Director and CEO of ONO, said: *“We are very delighted to collaborate with the leading cell therapy company, Celyad, for its distinct immune-oncology candidates. Celyad’s NKR-2 is backed by cutting-edge science and we believe that it can be a new therapeutic option for patients who are not cured with existing therapies.”*

Christian Homsy, MD, MBA, CEO of Celyad, said: *“We are very pleased to collaborate with ONO and to activate the development of our NKR-2 T-cell allogeneic platform in Japan, South Korea and Taiwan. This license agreement is a great opportunity for Celyad to expand the scope of its immuno-oncology clinical programs and bring this breakthrough science to many patients in these regions of Asia and, along with the U.S. and the EU. Further, this license agreement validates our NKR-2 approach and its high potential by ONO, the leader on immune-oncology in Asia.”*

Georges Rawadi, Ph.D., M.S., VP Business Development of Celyad, said: *“Celyad surrounds itself with the best immuno-oncology experts in the world to develop its NKR T-cell platform. This is why we have entered this agreement with ONO. Through this commercial license agreement, Celyad aims to expand the clinical and commercial potential of its allogeneic NKR-2 T-cell immunotherapies worldwide.”*

About NKR-2

Existing CAR T-cells are engineered using constructs encoding an antigen binding site of antibody for target molecule and the signaling domains of T-cell receptor complex. In contrast to existing CAR T-cells, Celyad’s lead immuno-oncology product candidate, NKR-2, is a T-Cell encoded to express the human Natural Killer activating receptor, NKG2D. Using the human Natural Killer cell receptor, unlike traditional CAR technologies, has the potential to:

- Bind to 8 different ligands that are expressed by a vast majority of cancer cells, both hematological and solid malignancies.
- Target and kill tumors as well as the blood vessels that feed them and also express the ligands of the NKG2D receptor.
- Attack regulatory T-cells in tumor microenvironment and remove the immunosuppressiveness.
- Induce adaptive auto-immune response resulting in the creation of a long term cell memory against the targeted tumor.

Autologous NKR-2 is prepared from patient's T-cell extract from own blood, which is processed into NKR-2 outside the body and then administered to the patient. On the other hand, allogeneic NKR-2, which ONO obtained license from Celyad, is derived from healthy donors' blood and processed into NKR-2. An inhibitory mechanism against TCR signaling is applied to allogeneic NKR-2 to avoid GvHD in the patients. The product could be used off-the-shelf for wide range of patients.

The research underlying this technology was originally conducted by Dartmouth College Professor Charles L. Sentman, and has been published in numerous peer-reviewed publications. Autologous NKR-2 has an active Investigational New Drug (IND) application with the FDA for a Phase I clinical trial. The trial is designed to assess the safety and feasibility of NKR-2 in acute myeloid leukemia and multiple myeloma patients, with secondary endpoints including clinical activity.

About Celyad

Founded in 2007, and based in Belgium, Celyad is a leader in engineered cell therapy with clinical programs initially targeting indications in oncology and cardiology. Celyad is developing its lead cardiovascular disease product candidate, C-Cure[®], for the treatment of ischemic heart failure, and has completed enrollment of a Phase III trial in Europe and Israel. In addition, the Company is developing a next generation portfolio of CAR T-cell therapies that utilize human Natural Killer cell receptors for the treatment of numerous blood and solid cancers. Its lead oncology product candidate, NKR-2 (NKG2D CAR T-cell), entered a Phase I clinical trial in April 2015.

Celyad's ordinary shares are listed on Euronext Brussels and Euronext Paris under the ticker symbol CYAD and Celyad's American Depositary Shares are listed on the NASDAQ Global Market under the ticker symbol CYAD.

To learn more about Celyad, please visit www.celyad.com

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