Celyad Oncology Presents Updates on Allogeneic CAR T Clinical Candidates and shRNA-based Preclinical Concepts at Research & Development Day

- *Phase 1 IMMUNICY-1 trial evaluating CYAD-211 in relapsed/refractory multiple myeloma (r/r MM) showed dose dependent engraftment up to dose level three (300×10^6 cells per infusion) with no Graft-versus-Host disease reported to date*
- *Submission of IND application for CYAD-203, a new first-in-class shRNA-based allogeneic, IL-18-armored CAR T candidate, expected in mid-2022*
- *CYAD-101 following FOLFIRI preconditioning in advanced metastatic colorectal cancer (mCRC) was well-tolerated; cell kinetic and activity of alloSHRINK trial support the initiation of the KEYNOTE-B79 Phase 1b trial of CYAD-101 following FOLFOX preconditioning chemotherapy during early fourth quarter 2021*

Mont-Saint-Guibert, Belgium – Celyad Oncology SA (Euronext & Nasdaq: CYAD) (Celyad Oncology or the Company), a clinical-stage biotechnology company focused on the discovery and development of chimeric antigen receptor T cell (CAR T) therapies for cancer, highlighted a new preclinical allogeneic armored CAR T candidate developed from its shRNA platform and data updates to the shRNA-based allogeneic candidate CYAD-211 for r/r MM and allogeneic candidate CYAD-101 for mCRC today during a research and development day hosted by the Company's management team.

"We are ushering in a new era of allogeneic CAR T candidates using novel technological advances, including our proprietary shRNA platform for allogeneic CAR T production and now the addition of our 'armored' CAR capabilities with co-expression of the cytokine IL-18," said Filippo Petti, Chief Executive Officer of Celyad Oncology. "We believe the advances we're making may address many of the current modality limitations and have the potential to provide real-world benefits for patients, including more accessible CAR T cell treatment options, if approved. This continued technological innovation, which is currently being validated in ongoing clinical studies, establishes Celyad Oncology as a leader in this adoptive cell therapy space."

Latest Program Updates

CYAD-211 – Allogeneic shRNA-based, anti-BCMA CAR T for r/r MM

- CYAD-211 is the Company's first shRNA-based allogeneic CAR T candidate, which co-expresses a BCMA targeting chimeric antigen receptor while using shRNA to knockdown expression of the CD3ζ component of theT-cell receptor (TCR)
    - Currently, CYAD-211 is being evaluated in the Phase 1 IMMUNICY-1 trial in r/r MM following preconditioning with cyclophosphamide (300 mg/m²) and fludarabine (30 mg/m²) given three consecutive days.
    - In June, preliminary data from the Phase 1 IMMUNICY-1 trial was presented at the European Hematology Association (EHA) congress demonstrating no dose limiting toxicity (DLT), Graft-versus-Host disease (GvHD) or CAR T-cell-related encephalopathy syndrome (CRES) in the first two dose levels (30×10^6 and 100×10^6 cells per infusion) of the trial. Two of the five evaluable patients at the first two dose levels achieved a partial response. In addition, CYAD-211 cells were detected by PCR-based methods in all six patients with evidence of a dose dependent increase in cell engraftment.
- Recent data from the first patient at dose level three (300×10^6 cells per infusion) continues to show dose dependent engraftment with no GvHD reported to date.
- Enrollment in the trial is ongoing with plans to explore higher doses of preconditioning regimens in future cohorts.

CYAD-203 – Allogeneic shRNA-based, IL-18-armored NKG2D CAR T for Solid Tumors

- CYAD-203 is the Company's first armored CAR T candidate engineered to co-express the cytokine interleukin-18 (IL-18) with the NKG2D CAR receptor. To the Company's knowledge, this therapy is on track to be first ever IL-18 secreting allogeneic CAR T candidate.
    - IL-18 is a proinflammatory cytokine that directly potentiates the anti-cancer activity of CAR T cells while also altering the balance of pro- and anti-inflammatory cells within tumor tissue.
    - Investigational New Drug (IND)-enabling studies are currently ongoing. Submission of the IND application for CYAD-203 for treatment of solid tumors is expected in mid-2022.

CYAD-101 – Allogeneic TIM-based NKG2D CAR T for mCRC

- To the Company's knowledge, CYAD-101 is the first investigational allogeneic CAR T candidate to generate evidence of clinical activity for the treatment of a solid tumor indication. This is based on data from the dose-escalation segment of the alloSHRINK Phase 1 trial evaluating CYAD-101 following FOLFOX (combination of 5-fluorouracil, leucovorin and oxaliplatin) preconditioning chemotherapy for the treatment of advanced metastatic colorectal cancer (mCRC).
- Initial data from the dose expansion cohort evaluating CYAD-101 (1×10^9 cells per infusion) following FOLFIRI (combination of 5-fluorouracil, leucovorin and irinotecan) preconditioning chemotherapy showed CYAD-101 was generally well-tolerated with no dose limiting toxicities or evidence of GvHD. Overall, nine out of ten evaluable mCRC patients showed stable disease at first tumor assessment.
- Data also showed shorter persistence of CYAD-101 cells observed after FOLFIRI preconditioning as compared to FOLFOX preconditioning. Based on better CYAD-101 cell kinetics and clinical activity data from the alloSHRINK FOLFOX cohort, the Company submitted a protocol amendment to regulatory agencies to modify the Phase 1b KEYNOTE-B79 trial to incorporate FOLFOX as preconditioning chemotherapy.
    - The KEYNOTE-B79 trial to evaluate CYAD-101 with Merck's anti-PD-1 therapy, KEYTRUDA® (pembrolizumab), in refractory mCRC patients with microsatellite stable / mismatch-repair proficient disease is expected to be initiated during the fourth quarter of 2021.

Business Update

- Celyad Oncology has acquired an exclusive license from the Moffitt Cancer Center for an antibody directed to Tumor-associated glycoprotein (TAG-72), which will form the basis of a T cell engager to be used with our proprietary shRNA platform technology. TAG-72 has been shown to be expressed in a wide variety of epithelial malignant tissues including breast, colon and pancreatic cells and will expand the Company's program portfolio in solid tumor targets.

Upcoming Milestones

- Additional clinical activity data for the Phase 1 IMMUNICY-1 trial of CYAD-211 for r/r MM are expected during second half 2021.
- Study initiation for KEYNOTE-B79 Phase 1b is expected early fourth quarter 2021.
- Submission of an IND application for CYAD-203 is expected in mid-2022.
- Report additional data from the dose-escalation Phase 1 CYCLE-1 trial evaluating CYAD-02 in relapsed/refractory acute myeloid leukemia and myelodysplastic syndrome in mid-2021.

About Celyad Oncology

Celyad Oncology is a clinical-stage biotechnology company focused on the discovery and development of chimeric antigen receptor T cell (CAR T) therapies for cancer. The Company is developing a pipeline of allogeneic (off-the-shelf) and autologous (personalized) CAR T cell therapy candidates for the treatment of both hematological malignancies and solid tumors. Celyad Oncology was founded in 2007 and is based in Mont-Saint-Guibert, Belgium and New York, NY. The Company has received funding from the Walloon Region (Belgium) to support the advancement of its CAR T cell therapy programs. For more information, please visit **www.celyad.com.**

Forward-Looking Statement

This release may contain forward-looking statements, within the meaning of applicable securities laws, including the Private Securities Litigation Reform Act of 1995. Forward-looking statements include statements regarding the clinical activity and safety and tolerability of CYAD-211, CYAD-203, and CYAD-101; expectations regarding enrollment and the announcement of additional clinical data; outcomes and timelines of the IMMUNICY-1 clinical trial and plans for initiating KEYNOTE-B79 Phase 1b trial; and the timeline for submission an IND application for CYAD-203. Forward-looking statements may involve known and unknown risks and uncertainties which might cause actual results, financial condition, performance or achievements of Celyad Oncology to differ materially from those expressed or implied by such forward-looking statements. Such risk and uncertainty include the duration and severity of the COVID-19 pandemic and government measures implemented in response thereto. A further list and description of these risks, uncertainties and other risks can be found in Celyad Oncology's U.S. Securities and Exchange Commission (SEC) filings and reports, including in its Annual Report on Form 20-F filed with the SEC on March 24, 2021 and subsequent filings and reports by Celyad Oncology. These forward-looking statements speak only as of the date of publication of this document and Celyad Oncology's actual results may differ materially from those expressed or implied by these forward-looking statements. Celyad Oncology expressly disclaims any obligation to update any such forward-looking statements in this document to reflect any change in its expectations with regard thereto or any change in events, conditions or circumstances on which any such statement is based, unless required by law or regulation.

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