Press Release
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Celyad Presents Update on CYAD-01 Solid Tumor Clinical Program at the SITC 33rd Annual Meeting

- *Standalone CYAD-01 without preconditioning leads to disease stabilization in three out of 11 metastatic colorectal cancer (mCRC) patients in THINK Phase 1 trial*
- *Initial data from first dose cohort of SHRINK trial, evaluating CYAD-01 with FOLFOX in the neoadjuvant setting, shows three out of three mCRC patients with liver metastases achieved pathological objective clinical response, including one patient with a pathological complete response (pCR) and two patients with pathological partial response (pPR)*
- *Preliminary safety data from THINK CyFlu cohort, evaluating CYAD-01 with preconditioning, remains encouraging with improvement in CYAD-01 kinetics*

Mont-Saint-Guibert, Belgium - Celyad (Euronext Brussels and Paris, and Nasdaq: CYAD), a clinical-stage biopharmaceutical company focused on the development of CAR-T cell-based therapies, today announced updated clinical results for the CYAD-01 program in solid tumors as well as translational research data presented at the Society for Immunotherapy of Cancer (SITC) 33rd Annual Meeting.

THINK Phase 1 Trial Update

- Results from the dose-escalation trial were reported at SITC (abstract P255). Overall 14 patients with relapsed/refractory disease (11 mCRC, two ovarian and one pancreatic) were enrolled in the trial, evaluating CYAD-01 without preconditioning chemotherapy at three different dose levels (300 million, 1 billion and 3 billion cells per injection) of one cycle of three administrations with two-week intervals. Patients treated at the highest dose level presenting signs of clinical activity (stable disease or greater) were eligible to receive a second cycle of treatment.
- Overall four patients experienced confirmed disease stabilization (three mCRC patients and one patient with ovarian cancer) according to RECIST 1.1 criteria.
- As a monotherapy treatment, CYAD-01 was well tolerated. Nine grade 3/4 treatment-related adverse events (AEs) were reported in five different patients including a grade 4 cytokine release syndrome (CRS) in dose level 3 considered as a dose-limiting toxicity (DLT). Five additional patients recruited at the same dose showed no further evidence of severe toxicity.
- The peak level of peripheral CYAD-01 cells detected seem to correlate with the dose level and clinical response.

SHRINK Phase 1 Trial Update

- The open-label, dose-escalation Phase 1 trial is assessing the safety and activity of CYAD-01 administered concurrently with FOLFOX chemotherapy in patients with liver metastases from colorectal cancer (CRC). Patients will receive six cycles of FOLFOX chemotherapy every two weeks and three administrations of CYAD-01 every two weeks 48 hours after the end of chemotherapy at cycles two, three and four. Based upon initial assessment of clinical activity,

patients could be eligible to receive three additional administrations of CYAD-01 at the same dose level.

- To date, enrollment of dose level one (100 million cells per injection) has been completed with three metastatic treatment-naïve patients. All patients have undergone resection without delays in surgery.
- Initial activity results assessed by pathological response criteria showed all three patients achieved an objective clinical response, including one patient with a pCR and two patients with pPR.
- Concurrent treatment of CYAD-01 with FOLFOX chemotherapy appears to be well tolerated, with no occurrence of serious AEs (SAEs) nor increase of treatment-related AEs rate.
- In addition, the expansion of peripheral CYAD-01 cells with a concurrent administration of FOLFOX chemotherapy is similar to the one observed with the standalone CYAD-01.
- Full data from the SHRINK Phase 1 trial are expected in mid-2019.

THINK CyFlu Phase 1 Cohort Update

- In February 2018, the THINK trial was amended to include a cohort known as THINK CyFlu (previously referred to as DEPLETHINK-CRC). The cohort evaluates a single injection of CYAD-01 following treatment with the standard preconditioning regimen of cyclophosphamide (300 mg/m²) and fludarabine (30 mg/m²), or CyFlu. CyFlu is administered daily at days -5, -4 and -3 prior to treatment with CYAD-01.
- To date, two patients have been enrolled into the cohort and completed the treatment schedule at the dose of 300 million cells per injection. Treatment with CYAD-01 following the standard preconditioning regimen of CyFlu was well tolerated with no occurrence of SAEs nor an increase of treatment-related AEs rate. As of November 9, the two enrolled patients were not yet evaluable for clinical response.
- Preliminary translational data suggest an improvement in the cell expansion of CYAD-01 induced by the CyFlu preconditioning.
- Full data from the THINK CyFlu Phase 1 cohort are expected in mid-2019.

Dr. Frédéric Lehmann, VP of Clinical Development & Medical Affairs at Celyad, commented, *"Solid tumors remain the greatest current challenge for any T cell therapy. One of the major hurdles is the lack of suitable targets, and in our perspective, NKG2D ligands that are targeted by CYAD-01 represent an attractive family of targets on solid tumors that may be exploited by our clinical candidates. I am encouraged that to date CYAD-01 is well tolerated as a monotherapy for the treatment of mCRC, while preliminary observations of clinical activity in the form of disease stabilization imply that there is potential for the approach. Furthermore, the initial findings of clinical activity reported from the initial dose level of CYAD-01 when administered concurrently with standard-of-care chemotherapy in the SHRINK trial are encouraging and provide support for this view."*

Celyad also highlighted several updates to the broader solid tumor development program and non-gene edited, allogeneic platforms.

LINK Phase 1 Trial Update

- Following a strategic review of the CYAD-01 program in CRC, the Company has decided to stop enrollment of the LINK trial. The dose-escalation study had planned to assess the safety and clinical activity of multiple hepatic transarterial administrations of CYAD-01 in patients with unresectable liver metastases from CRC. To date, one patient in dose level one has been enrolled in the study.

alloSHRINK Phase 1 Trial Update

- In July 2018, the U.S. Food and Drug Administration (FDA) permitted the Investigational New Drug (IND) application for CYAD-101, the world's first non-gene edited, allogeneic CAR-T clinical candidate, to go into effect. As previously announced, CYAD-101 will initially be evaluated in the alloSHRINK trial.
- alloSHRINK is an open-label, dose-escalation trial that will assess the safety and clinical activity of CYAD-101 administered concurrently with FOLFOX chemotherapy in patients with unresectable mCRC. Similar to the SHRINK trial for CYAD-01, patients will receive six cycles of FOLFOX chemotherapy every two weeks and three administrations of CYAD-01 every two weeks 48 hours after the initiation of chemotherapy cycles one, two and three.
- Enrollment in the trial is expected to begin by year-end 2018 with topline data anticipated during the second half of 2019.

Next-Generation, Allogeneic shRNA Platform

- In October 2018, Celyad announced it had entered into an exclusive agreement with Horizon Discovery Group for the use of its shRNA technology to generate a novel, next-generation, non-gene-edited allogeneic platform. Initial results from preclinical studies demonstrating the versatility of the shRNA technology in the allogeneic setting will also be presented at SITC (abstract P220). Follow up data for the platform are expected in the first quarter of 2019.

"We are excited about the progress we have made thus far with our solid tumor program for lead candidate CYAD-01," said David Gilham, Ph.D., VP of Research and Development at Celyad. *"We continue to investigate complementary regimens for CYAD-01 for the treatment of metastatic colorectal cancer that we believe may help to drive additional clinical activity in this devastating disease where a true unmet medical need exists. Additionally, CYAD-101 offers a first-in-class investigational allogeneic CAR-T for the treatment of mCRC and leverages our overall clinical experience within the indication while strategically positioning the Company to be a leading player in both the autologous and allogeneic CAR-T cell therapy space."*

SITC Analyst/Investor Event

Celyad will host an Analyst/Investor event on Saturday, November 10, 2018, beginning at 12:30 p.m. ET to review data presented at SITC. The company presentation for the event will be available under Events & Webcasts in the Investors section of the Company's website.

Background on CYAD-01 and CYAD-101
CYAD-01 is an investigational, autologous CAR-T therapy in which a patient's T cells are engineered to express the chimeric antigen receptor NKG2D, a receptor expressed on natural killer (NK) cells that binds to eight stress-induced ligands expressed on tumor cells. CYAD-101 is an investigational, non-gene edited, allogeneic (donor derived) CAR-T therapy that co-expresses the company's CYAD-01 CAR-T construct and the novel inhibitory peptide TIM (T cell receptor [TCR] Inhibiting Molecule). TCR signalling is responsible for Graft versus Host Disease (GvHD). The expression of TIM reduces signalling of the TCR complex and could therefore reduce or eliminate GvHD in patients treated with CYAD-101.

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About Celyad

Celyad is a clinical-stage biopharmaceutical company focused on the development of specialized CAR-T cell-based therapies. Celyad utilizes its expertise in cell engineering to target cancer. Celyad's CAR-T cell platform has the potential to treat a broad range of solid and hematologic tumors. Its lead oncology candidate, CYAD-01 (CAR-T NKG2D), is currently being evaluated in a Phase I dose escalation clinical trial to assess the safety and clinical activity of multiple administrations of autologous CYAD-01 cells in seven refractory cancers including five solid tumors (colorectal, ovarian, bladder, triple-negative breast and pancreatic cancers) and two hematological tumors (acute myeloid leukemia and multiple myeloma). The safety and clinical activity of the CYAD-01 therapy concurrently administered with standard-of-care treatments or preconditioning chemotherapy is also being assessed in a full clinical development program focused on acute myeloid leukemia and colorectal cancer. Celyad was founded in 2007 and is based in Mont-Saint-Guibert, Belgium, and New York, NY. Celyad's ordinary shares are listed on the Euronext Brussels and Euronext Paris exchanges, and its American Depository Shares are listed on the Nasdaq Global Market, all under the ticker symbol CYAD.

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Forward-looking statements

This release may contain forward-looking statements, including statements regarding the safety and efficacy of CYAD-01 and CYAD-101; statements concerning the ongoing and planned clinical development of CYAD-01 and CYAD-101, including the timing of trials, enrollment, data readouts and presentations; the clinical and commercial potential of CYAD-01 and CYAD-101 and the adequacy of Celyad's financial resources; statements concerning Celyad's exclusive agreement with Horizon Discovery Group; the clinical and commercial potential of its shRNA technology; Celyad's financial condition, results of operation and business outlook; and Celyad's expected cash burn. Forward-looking statements may involve known and unknown risks, uncertainties and other factors which might cause actual results, financial condition and liquidity, performance or achievements of Celyad, or industry results, to differ materially from those expressed or implied by such forward-looking statements. In particular it should be noted that the data summarized above are preliminary in nature. There is limited data concerning safety and clinical activity following treatment with the CYAD-01 and CYAD-101 drug product candidates. These results may not be repeated or observed in ongoing or future studies involving the CYAD-01 and CYAD-101 drug product candidates. These forward-looking statements are further qualified by important factors and risks, which could cause actual results to differ materially from those in the forward-looking statements, including statements about: the initiation, timing, progress and results of our preclinical studies and clinical trials, and our research and development programs; our ability to advance drug product candidates into, and successfully complete, clinical trials; our ability to successfully manufacture drug product for our clinical trials, including with our mAb manufacturing process and with respect to manufacturing drug product with the desired number of T cells under our clinical trial protocols; our reliance on the success of our drug product candidates, including our dependence on the regulatory approval of CYAD-01 and CYAD-101 in the United States and Europe and subsequent commercial success of CYAD-01 and CYAD-101, both of which may never occur; the timing or likelihood of regulatory filings and approvals; our ability to develop sales and marketing capabilities; the commercialization of our drug product candidates, if approved; the pricing and reimbursement of our drug product candidates, if approved; the implementation of our business model, strategic plans for our business, drug product candidates and technology; the scope of protection we are able to establish and maintain for intellectual property rights covering our drug product candidates and technology; our ability to operate our business without infringing, misappropriating or otherwise violating the intellectual property

rights and proprietary technology of third parties; cost associated with enforcing or defending intellectual property infringement, misappropriation or violation; product liability; and other claims; regulatory development in the United States, the European Union, and other jurisdictions; estimates of our expenses, future revenues, capital requirements and our needs for additional financing; the potential benefits of strategic collaboration agreements and our ability to maintain and enter into strategic arrangements; our ability to maintain and establish collaborations or obtain additional grant funding; the rate and degree of market acceptance of our drug product candidates, if approved; our financial performance; developments relating to our competitors and our industry, including competing therapies and statements regarding future revenue, hiring plans, expenses, capital expenditures, capital requirements and share performance. A further list and description of these risks, uncertainties and other risks can be found in Celyad'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 April 6, 2018 and subsequent filings and reports by Celyad. Given these uncertainties, the reader is advised not to place any undue reliance on such forward-looking statements. These forward-looking statements speak only as of the date of publication of this document and Celyad's actual results may differ materially from those expressed or implied by these forward-looking statements. Celyad 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.