

Celyad announces third quarter 2016 business update

First clinical trial of NKR-2 T-cells therapy completed with good safety outcome and unexpected signals of clinical activity at the low doses tested

Strong cash management leading to a cash runway until mid-2019

Mont-Saint-Guibert, Belgium - Celyad (Euronext Brussels and Paris, and NASDAQ: CYAD), a leader in the discovery and development of engineered cell therapies, today provides an update on key clinical and operational developments over the three-month period ended 30 September 2016.

HIGHLIGHTS OF THE THIRD QUARTER

- Strategic License agreement with ONO PHARMACEUTICAL CO., LTD, Japan, to develop allogeneic NKR-2 T-cell immunotherapy.
- Completion of the autologous NKR-2 Phase I trial conducted at the Dana Farber Cancer Institute in Boston, USA, with successful safety follow-up.
- NKR-2 safety data demonstrating encouraging results to be presented early December at the American Society of Hematology (ASH) Annual Meeting
- Reinforcement of the corporate management team with the appointment of Philippe Dechamps as Chief Legal Officer.

Dr. Christian Homsy, CEO of Celyad commented: *"The third quarter of 2016 saw us increase our focus on the development of our NKR-T platform in line with our strategy. We continued to deliver on our development objectives for NKR-2 and reached important safety outcomes with the successful completion of our Phase I trial. We also saw reports of unexpected clinical benefits which were encouraging. We now look forward to reporting the outcome of this trial at ASH in December, and starting THINK, our multiple dosing umbrella trials testing NKR-2 in five solid and two blood malignancies."*

Patrick Jeanmart, CFO at Celyad, added: *"Thanks to the first payment associated to the ONO partnership and a strong management of our operational cash drain, we ended the third quarter of 2016 with EUR 87 million. This cash position will allow the Group to finance all of its operations and clinical development program until the middle of 2019."*

OPERATIONAL AND FINANCIAL REVIEW

Over the third quarter, Celyad has made significant progress in the preclinical and clinical development of its NKR-T platform with the completion of the autologous NKR-2 Phase I trial. This study was completed in September 2016 with a successful safety follow-up for all dose level cohorts. There were no cases of cytokine release syndrome, cell-related neurotoxicity, auto-immunity, or CAR-T related death. Furthermore, some unexpected clinical activity was observed while testing a single infusion dosed between 50 and 1,000 times lower than our expected efficacious dose extrapolated from animal experiments. The NKR-2 Phase I trial was a single infusion, dose escalation study evaluating the safety and feasibility of NKR-2 T-cells in Acute Myeloid Leukemia and Multiple Myeloma patients. Full data readout is confirmed to take place at the ASH conference early December in San Diego.

In July, Celyad entered into an exclusive license agreement with the Japanese company ONO PHARMACEUTICAL CO., LTD, one of the global leaders in the immuno-oncology field, for the development and commercialization of Celyad's allogeneic NKR-2 T-cell immunotherapy in Japan, Korea and Taiwan. Under the terms of the agreement, Celyad will continue developing its allogeneic NKR-2 T-cell immunotherapy in the EU and US territories, and ONO will be responsible for future development and commercialization in ONO's territories (Japan, Korea and Taiwan). In exchange for granting ONO an exclusive license in these territories, ONO will pay Celyad a \$12.5 million-dollar upfront payment, up to \$299 million in additional milestones and a double-digit royalty based on the net sales of the licensed product in ONO's territory. Both companies will also explore the opportunity to collaborate to collectively run global registration trials and combination trials. In addition, Celyad has also granted to ONO an exclusive option to license for development and commercialization of its autologous NKR-2 T cell product in the above ONO territories.

In August, Celyad presented the primary clinical data of CHART-1 Phase III trial at the European Society of Cardiology. Though the primary endpoint of the study was not reached, a positive trend was seen across all treatment groups, and the primary endpoint was met ($p=0.015$) for a subset representing 60% of the population of the CHART-1 study (baseline End Diastolic Volume (EDV) segmentation). In this subgroup, a statistical significant positive difference was seen in all individual elements of the composite primary endpoint (Mortality, Worsening Heart Failure Events, Quality of Life, 6 minutes Walking Test, End Systolic Volume and Ejection Fraction). Based on these results, Celyad has initiated business development activities seeking a partner who would pursue the further development and commercialization of the therapy C-Cure®.

Also in August, Mr. Danny Wong resigned amicably from Celyad's Board of Directors in order to concentrate on his investments in Asia.

In September, Celyad reinforced its management team with the appointment of Philippe Dechamps as Chief Legal Officer.

The Company ended the quarter with €87 million in cash including the first payment of €10 million from ONO. Use of cash over the quarter amounted to €9 million. The Company believes that existing cash and cash equivalents and short term investments are sufficient to fund operating expenses and capital expenditure requirements, based on the current scope of activities, until the middle of 2019.

END

About Celyad

Celyad is a clinical-stage biopharmaceutical company focused on the development of specialized cell-based therapies. The Company utilizes its expertise in cell engineering to target severe diseases with significant unmet need, including cancer. Celyad's CAR-T product candidates using Natural Killer Receptor transduced on T cells (NKR-T) platform has the potential to treat a broad range of solid and liquid tumors. Its lead oncology candidate, NKR-2, has been evaluated in a single dose escalation Phase I clinical trial to assess the safety and feasibility of NKR-2 T-cells in patients suffering from AML or MM. In addition, Celyad has completed a Phase III trial in the EU for its C-Cure® cardiovascular disease candidate in ischemic heart failure. Celyad was founded in 2007 and is based in Mont-Saint-Guibert, Belgium, and Boston, Massachusetts. Celyad's ordinary shares are listed on the Euronext Brussels and Euronext Paris exchanges, and its American Depository Shares are listed on NASDAQ Global Market, all under the ticker symbol CYAD.

For more information about Celyad, please visit: www.celyad.com

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Forward looking statements

In addition to historical facts or statements of current condition, this press release contains forward-looking statements, including statements about the potential safety and feasibility of NKR-2 T-cell therapy and C-Cure, which reflect our current expectations and

projections about future events, and involve certain known and unknown risks, uncertainties and assumptions that could cause actual results or events to differ materially from those expressed or implied by the forward-looking statements.

These forward-looking statements are further qualified by important factors, which could cause actual results to differ materially from those in the forward-looking statements, including risks associated with on-going *ex parte* re-examination of the Company's U.S. patent number 9,181,527, including the risk that the U.S. Patent and Trademark Office may decide to cancel all or a portion of the claims contained therein, risks associated with conducting clinical trials; the risk that safety, bioactivity, feasibility and/or efficacy demonstrated in earlier clinical or pre-clinical studies may not be replicated in subsequent studies; risk associated with the timely submission and approval of anticipated regulatory filings; the successful initiation and completion of clinical trials, including Phase III clinical trials for C-Cure® and Phase I clinical trial for NKR-2; risks associated with the satisfaction of regulatory and other requirements; risks associated with the actions of regulatory bodies and other governmental authorities; risks associated with obtaining, maintaining and protecting intellectual property, our ability to enforce our patents against infringers and defend our patent portfolio against challenges from third parties; risks associated with competition from others developing products for similar uses; risks associated with our ability to manage operating expenses; and risks associated with our ability to obtain additional funding to support our business activities and establish and maintain strategic business alliances and business initiatives.

A further list and description of these risks, uncertainties and other risks can be found in the Company's Securities and Exchange Commission filings and reports, including in the Company's Annual Report on Form 20-F filed with the SEC on April 8, 2016 and future filings and reports by the Company. 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. The Company 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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