
**UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
WASHINGTON, D.C. 20549**

FORM 6-K

**REPORT OF FOREIGN PRIVATE ISSUER
PURSUANT TO RULE 13a-16 OR 15d-16
UNDER THE SECURITIES EXCHANGE ACT OF 1934**

For the Month of March 2022

Commission File Number: 001-37452

CELYAD ONCOLOGY SA

(Translation of registrant's name into English)

**Rue Edouard Belin 2
1435 Mont-Saint-Guibert, Belgium
(Address of principal executive offices)**

Indicate by check mark whether the registrant files or will file annual reports under cover of Form 20-F or Form 40-F.

Form 20-F Form 40-F

Indicate by check mark if the registrant is submitting the Form 6-K in paper as permitted by Regulation S-T Rule 101(b)(1):

Indicate by check mark if the registrant is submitting the Form 6-K in paper as permitted by Regulation S-T Rule 101(b)(7):

Celyad Oncology SA

On March 24, 2022, Celyad Oncology SA (the “Company”) issued a press release, a copy of which is attached hereto as Exhibit 99.1 and is incorporated by reference herein.

The information contained in this Current Report on Form 6-K, including Exhibit 99.1, except for the quote of Filippo Petti contained in Exhibit 99.1, is hereby incorporated by reference into the Company’s Registration Statements on Form F-3 (File No. 333-248464) and Form S-8 (File No. 333-220737).

EXHIBITS

Exhibit

Description

99.1

[Press release issued by the Company on March 24, 2022](#)

SIGNATURES

Pursuant to the requirements of the Securities Exchange Act of 1934, the registrant has duly caused this report to be signed on its behalf by the undersigned, thereunto duly authorized.

Date: March 24, 2022

CELYAD ONCOLOGY SA

By: /s/ Filippo Petti

Filippo Petti

Chief Executive Officer and Financial Officer



Celyad Oncology Reports Full Year 2021 Financial Results and Recent Business Highlights

- Phase 1 IMMUNICY-1 trial demonstrated encouraging data to date for CYAD-211 including a good tolerability profile and evidence of clinical activity in relapsed/refractory multiple myeloma (r/r MM) patients
- Investigation ongoing of findings in CYAD-101-002 Phase 1b trial following announcement of clinical hold by FDA
- Cash position of €30.0 million (\$34.0 million) as of December 31, 2021
- Conference call and webcast scheduled for March 25 at 1:00 p.m. CET / 8:00 a.m. EDT

Mont-Saint-Guibert, Belgium – Celyad Oncology SA (Euronext & Nasdaq: CYAD) (the “Company”), a clinical-stage biotechnology company focused on the discovery and development of chimeric antigen receptor T cell (CAR T) therapies for cancer, today announced its financial results for the fiscal year 2021 ended December 31, 2021 and provided a business update.

“This is a transformative time for Celyad Oncology as we work towards becoming a leading innovator in the allogeneic CAR T space. Over the past year, our team executed in evaluating our dynamic shRNA proprietary technology platform and introduced our armored CAR T franchise while delivering important updates across our CAR T pipeline. In addition, we expect our recently announced private placement with Fortress Investment Group to act as a catalyst for our corporate initiatives to advance our intellectual property and allogeneic CAR T product candidates,” commented Filippo Petti, Chief Executive Officer of the Company. “Although we are facing a current challenge with the CYAD-101 Phase 1b trial, the safety of our patients is our first priority, and we are focusing our efforts on the current investigation. The situation does not take away from the important work our team is doing and we believe we can look forward to announcing exciting upcoming milestones in 2022.”

Update on Clinical and Preclinical Programs

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

- The dose-escalation, Phase 1 IMMUNICY-1 trial is evaluating the tolerability and clinical activity of a single infusion of CYAD-211 following preconditioning with CyFlu (cyclophosphamide and fludarabine) in patients with r/r MM.
 - At the 63rd American Society of Hematology (ASH) Annual Meeting and Exposition in December 2021, the Company presented the latest clinical data from the trial that showed a good tolerability profile and evidence of clinical activity. Data showed no dose-limiting toxicities, GvHD or CAR T-related encephalopathy syndrome (CRES). There was one Grade 1 cytokine release syndrome (CRS) event and three patients experienced Grade 3 or 4 treatment-related blood disorders. Three out of 12 total patients with r/r MM evaluated for activity achieved partial response, one in each dose-level, while eight patients had stable disease. All patients had detectable CYAD-211 cells in the peripheral blood, although engraftment was short lasting.
 - The next segment of the IMMUNICY-1 study will evaluate CYAD-211 following enhanced lymphodepleting (eLD) regimens with the aim to improve cell expansion and persistence and potentially maximize the clinical activity of CYAD-211. In addition, the IMMUNICY-1 protocol allows for redosing of CYAD-211 in certain patients.
 - Enrollment in the eLD cohorts of the IMMUNICY-1 trial is ongoing with additional data expected in the second half of 2022.

CYAD-101 – Allogeneic TIM-based, NKG2D CAR T Candidate for Metastatic Colorectal Cancer (mCRC).

- In December 2021, the Company announced the first patient was dosed in the Phase 1b CYAD-101-002 (KEYNOTE-B79) Phase 1b trial. The CYAD-101-002 trial is part of a collaboration with MSD, a tradename of Merck & Co., Inc., Kenilworth, NJ, USA, through a subsidiary. The trial is evaluating the Company’s TCR Inhibitory Molecule (TIM)-based allogeneic NKG2D CAR T cell investigational therapy, CYAD-101, administered concurrently with FOLFOX chemotherapy, followed by MSD’s anti-PD-1 therapy, KEYTRUDA® (pembrolizumab), in patients with refractory mCRC with microsatellite stable/mismatch-repair proficient disease.
- In February 2022, the Company voluntarily placed the Phase 1b trial on clinical hold after two fatalities occurred that presented with similar pulmonary findings. Subsequently, in March 2022, the U.S. Food & Drug Administration (FDA) put the Company on a clinical hold. The Company is currently investigating these findings and evaluating any similar events in additional patients treated on study. The Company expects to provide additional updates on the trial in the future.

- CYAD-101 is the only investigational candidate from the Company using the TIM technology.

CYAD-203 – Preclinical allogeneic shRNA-based, IL-18-armed NKG2D CAR T for Solid Tumors

- Preclinical data presented at the Society for Immunotherapy of Cancer (SITC) 36th Annual Meeting demonstrated enhanced anti-tumor activity of NKG2D CAR T cells when armed with the cytokine Interleukin-18 (IL-18), supporting the continued development of CYAD-203 as well as future allogeneic IL-18-armed CAR T candidates.
- IND-enabling studies are currently in progress alongside production of the clinical grade vector. Submission of the IND application to the FDA for CYAD-203 is anticipated by year-end 2022.

CYAD-02 – Autologous NKG2D receptor CAR T Candidate for relapsed or refractory Acute Myeloid Leukemia or Myelodysplastic Syndrome (r/r AML / MDS)

- At the ASH Annual Meeting and Exposition in December 2021, the Company presented the latest clinical data from the Phase 1 CYCLE-1 dose-escalation trial of CYAD-02 for the treatment of r/r AML / MDS.
 - Data from the trial showed that a single shRNA can target two independent genes (MICA/MICB) to enhance the phenotype of the CAR T cells. In addition, the dual knockdown of these genes showed a positive contribution to the initial clinical activity of CYAD-02 as well as a trend towards increased engraftment and persistence compared to our first-generation, autologous NKG2D receptor CAR T candidate, CYAD-01. A comparison of cellular kinetics for CYAD-02 and CYAD-01 trend towards increased engraftment and persistence of CYAD-02, potentially associated with the knockdown of MICA/MICB and reduced fratricide *in vivo*.

Upcoming Anticipated Milestones

- Enrollment in the cohorts evaluating enhanced lymphodepletion is ongoing in the CYAD-211 IMMUNICY-1 trial and additional data from the trial are expected in the second half of 2022.
- IND-enabling studies continue for CYAD-203, with submission of an IND application to the FDA for CYAD-203 anticipated by year-end 2022.

Full Year 2021 Financial Review

As of December 31, 2021, the Company had cash and cash equivalents of €30.0 million (\$34.0 million).

Based on the Company’s current scope of activities, the Company estimates that its cash and cash equivalents as of December 31, 2021, combined with the remaining access to the equity purchase agreement established with Lincoln Park Capital Fund, LLC, should be sufficient to fund operating expenses and capital expenditure requirements until mid-2023.

Key financial figures for full-year 2021, compared with full-year 2020, are summarized below:

Selected key financial figures (€ millions)	Full year 2021	Full year 2020
Revenue	—	—
Research and development expenses	(20.8)	(21.5)
General and administrative expenses	(9.9)	(9.3)
Change in fair value of contingent consideration	0.8	9.2
Other income/(expenses)	3.4	4.6
Operating loss	(26.4)	(17.0)
Loss for the period/year	(26.5)	(17.2)
Net cash used in operations	(26.6)	(27.7)
Treasury position ⁽¹⁾	30.0	17.2

(1) “Treasury position” is an alternative performance measure determined by adding Short-term investments and Cash and cash equivalents from the statement of financial position prepared in accordance with IFRS. The purpose of this measure by Management is to identify the level of cash available internally (excluding external sources of financing) within 12 months.

The Company’s license and collaboration agreements generated no revenue in 2021 and in 2020.

Research and Development (R&D) expenses were €20.8 million in 2021 as compared to €21.5 million in 2020, a year-over-year decrease of €0.7 million. The decrease in the Company's R&D expenses is primarily driven by the Company's decision to discontinue the development of CYAD-01 in the fourth quarter of 2020, as well as a decrease of the expenses associated with share-based payments (non-cash expenses) related to the warrant plan offered to our employees and directors.

General and Administrative (G&A) expenses were €9.9 million in 2021 as compared to €9.3 million in 2020, an increase of €0.6 million. This increase is primarily related to higher insurances costs and consulting fees partially compensated by the decrease of the expenses associated with the share-based payments (non-cash expenses) related to the warrants plan offered to our employees and directors.

The fair value adjustment (€0.8 million) relating to the contingent consideration and other financial liabilities as of December 31, 2021 was mainly driven by updated assumptions associated with the timing of the potential commercialization of the Company's allogenic CYAD-101 CAR T program for mCRC and autologous CYAD-02 CAR T program for r/r AML/MDS as well as to reflect the future development of the program through potential partnership. The decrease of the liability is also driven by an update to the fair value measurement based on factors such as the weighted average cost of capital, the revaluation of the U.S. dollar against the Euro and updated assumptions on probability of success associated with the Company's CAR T programs as of December 31, 2021.

The Company's other income is associated with grants received from the Walloon Region mainly in the form of recoverable cash advances (RCAs) and R&D tax credit income:

- Grant income (RCAs): additional grant income has been recognized in 2021 on grants in the form of RCAs. According to IFRS standards, the Company has recognized grant income for the period amounting to €2.7 million and a liability component of €1.6 million is accounted for as a financial liability.
- Grant income (Others): additional grant income has been recognized in 2021 on grants received from the Federal Belgian Institute for Health Insurance Inami (€0.3 million) and from the regional government (for €1.1 million), not referring to RCAs and not subject to reimbursement.
- With respect to R&D tax credit, the current year income is predicated on a R&D tax credit recorded as (€0.7 million), which has been updated to take into account all information available as of this date and is in line with previous year.

In 2021, other income was partially compensated by other expenses including the remeasurement income on the RCAs of €0.3 million for the year 2021 and amendment fees associated with the Dartmouth license agreement signed in December 2021 for €1.1 million.

Net loss for the year ended December 31, 2021 was €26.5 million, or €1.70 per share, compared to a net loss of €17.2 million, or €1.23 per share, for the same period in 2020. As noted above, the increase in net loss between periods was primarily due to the decrease change in fair value of contingent consideration combined with the decrease on other income/expenses.

Net cash used in operations for the year ended December 31, 2021, which excludes non-cash effects, amounted to €26.6 million, which is in line with net cash used in operations of €27.7 million for the year ended December 31, 2020.

Annual Report 2021

The Annual Report for the year ended December 31, 2021 will be published on March 24, 2022, and will be available on the Company's website, www.celyad.com. The Company's statutory auditor, EY Bedrijfsrevisoren BV/Réviseurs d'Entreprises SRL (EY), has confirmed that the completed audit has not revealed any material misstatement in the consolidated financial statements. EY also confirmed that the accounting data reported in the press release are consistent, in all material respects, with the consolidated financial statements from which it has been derived.

Conference Call and Webcast Details

A conference call will be held on Friday, March 25th at 1:00 p.m. CET / 8:00 a.m. EDT to review the financial and operating results for full year 2021. Please dial into the call five to ten minutes prior to start time using the appropriate number below and ask to join the "Celyad Oncology SA call":

- United States: + 1 866 652 5200
- Belgium: +32 (0) 800 389 13
- International: +1 412 317 6060

The conference call will be **webcast live** and archived within the "**Events**" section of the Celyad Oncology website.

Financial Calendar

Q1 2022 Financial Results	May 5, 2022
H1 2022 Financial Results	August 5, 2022
Q3 2022 Financial Results	November 10, 2022

About Celyad Oncology SA

Celyad Oncology SA 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 statements

This release contains forward-looking statements, within the meaning of applicable securities laws, including the Private Securities Litigation Reform Act of 1995, as amended. Forward-looking statements include, without limitation, statements regarding: the KEYNOTE-B79 trial, including the clinical hold, the timing and outcomes of additional data from Phase 1 IMMUNICY-1 trial of CYAD-211 and the Phase 1 CYCLE-1 trial of CYAD-02, the timing and outcome of the submission of the IND application for CYAD-203, the safety and clinical activity of the product candidates in Celyad Oncology's pipeline, Celyad Oncology's financial condition and cash runway, and expected results of operations and business outlook. The words "may," "might," "will," "could," "would," "should," "plan," "anticipate," "intend," "believe," "expect," "estimate," "future," "potential," "continue," "target" and similar words or expressions are intended to identify forward-looking statements, although not all forward-looking statements contain these identifying words. Forward-looking statements are based on management's current expectations and 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 includes, without limitation: the timing, duration and outcome of the clinical hold on the KEYNOTE-B79 Phase 1b trial, Celyad Oncology's ability to continue to access to the equity purchase agreement with Lincoln Park Capital Fund, LLC, our financial and operating results and the duration and severity of the COVID-19 pandemic and global economic uncertainty. 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 the latest Annual Report on Form 20-F filed with the SEC, and subsequent filings and reports of 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 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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Celyad Oncology SA
Consolidated Statement of Operations and Comprehensive Loss

(€'000)	For the year ended December 31,	
	2021	2020
Revenue	—	5
Cost of sales	—	—
Gross profit	—	5
Research and Development expenses	(20 773)	(21 522)
General & Administrative expenses	(9 908)	(9 315)
Change in fair value of contingent consideration	847	9 228
Other income	4 909	4 731
Other expenses	(1 466)	(114)
Operating Loss¹	(26 391)	(16 987)
Financial income	144	217
Financial expenses	(255)	(434)
Loss before taxes	(26 502)	(17 204)
Income taxes	(10)	—
Loss for the period	(26 512)	(17 204)
Basic and diluted loss per share (in €)	(1.70)	(1.23)
Other comprehensive income/(loss)		
Items that will not be reclassified to profit and loss	554	(197)
Remeasurements of post-employment benefit obligations, net of tax	554	(197)
Items that may be subsequently reclassified to profit or loss	42	(5)
Currency translation differences	(5)	(261)
Other comprehensive income / (loss) for the period, net of tax	596	(202)
Total comprehensive loss for the period	(25 916)	(29 194)
Total comprehensive loss for the period attributable to Equity Holders (1)	(25 916)	(17 406)

[1] For 2021 and 2020, the Group does not have any non-controlling interests and the losses for the year are fully attributable to owners of the parent.

¹ The operating loss arises from the Company's loss for the period before deduction of financial income, financial expenses and income taxes. The purpose of this measure by Management is to identify the Company's results in connection with its operating activities.

Celyad Oncology SA
Consolidated Statement of Financial Position

(€'000)	December 31, 2021	December 31, 2020 (as adjusted)
NON-CURRENT ASSETS	45 651	46 379
Goodwill and Intangible assets	36 168	36 171
Property, Plant and Equipment	3 248	4 119
Non-current Trade and Other receivables	2 209	2 117
Non-current Grant receivables	3 764	3 679
Other non-current assets	262	293
CURRENT ASSETS	34 292	19 705
Trade and Other Receivables	668	615
Current Grant receivables	1 395	145
Other current assets	2 211	1 711
Short-term investments	—	—
Cash and cash equivalents	30 018	17 234
TOTAL ASSETS	79 943	66 084
EQUITY	43 639	30 994
Share Capital	78 585	48 513
Share premium	6 317	43 349
Other reserves	33 172	30 958
Capital reduction reserve	234 562	191 212
Accumulated deficit	(308 997)	(283 038)
NON-CURRENT LIABILITIES	22 477	23 256
Bank loans	—	—
Lease liabilities	1 730	2 525
Recoverable Cash advances (RCAs)	5 851	4 220
Contingent consideration payable and other financial liabilities	14 679	15 526
Post-employment benefits	53	614
Other non-current liabilities	164	371
CURRENT LIABILITIES	13 827	11 834
Bank loans	—	37
Lease liabilities	902	1 076
Recoverable Cash advances (RCAs)	362	371
Trade payables	6 611	4 736
Other current liabilities	5 952	5 614
TOTAL EQUITY AND LIABILITIES	79 943	66 084

Celyad Oncology SA
Consolidated Net Cash Burn Rate²

(€'000)	For the year ended 31 December,	
	2021	2020
Net cash used in operations	(26 643)	(27 665)
Net cash (used in)/from investing activities	(126)	157
Net cash (used in)/from financing activities	39 521	5 396
Effects of exchange rate changes	32	8
Change in Cash and cash equivalents	12 784	(22 104)
Change in Short-term investments	—	—
Net cash burned over the period	12 784	(22 104)

² 'Net cash burn rate' is an alternative performance measure determined by the year-on-year net variance in the Group's treasury position as above defined. The purpose of this measure for the Management is to determine the change of the treasury position.