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Celyad

REGISTRATION DOCUMENT

This document constitutes Celyad's registration document 2019 (the "**Registration Document**") within the meaning of Article 28 of the Belgian Act of 16 June 2006 on public offers of investment instruments and on the admission of investment instruments to trading on a regulated market (the "**Prospectus Act**").

The English version of this Registration Document was approved by the FSMA on 11 June 2019 in accordance with Article 23 of the Prospectus Act.

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1. RISK FACTORS

The risks and uncertainties that the Company believes are material are described below. However, these risks and uncertainties may not be the only ones faced by the Company and are not intended to be presented in any assumed order of priority. Additional risks and uncertainties not presently known, or that management currently believes to be immaterial, may also affect the Company's business, financial condition and results of operations. The registration document also contains forward-looking statements that involve risks and uncertainties.

If any of the risks described below actually occurs, the Company's business, results of operations, financial condition and prospects could be adversely affected and the Company's ability to continue as a going concern could even be endangered. In that case, the value of the Company's shares could decline and Shareholders could lose all or part of their investment. The Company has taken - and will continue to take - measures to control these risks as most efficiently as possible. However, there is no guarantee that these measures are adequate and complete to deal with all eventualities. Therefore, it cannot be completely excluded that some of these risks will occur and could affect, among others, the Company's business, turnover, financial position and results.

1.1 Risks Related to the Company's Financial Position and Need for Additional Capital

Celyad has incurred net losses in each period since its inception and anticipate that the Company will continue to incur net losses in the future.

The Company is not profitable and has incurred losses in each period since its inception. For the years ended 31 December 2018, 2017 and 2016, the Company incurred a loss for the year of €38.5 million, €56.4 million and €23.6 million, respectively. As of 31 December 2018, the Company had a retained loss of €218.6 million. The Company expects these losses to increase as it continues to incur significant research and development and other expenses related to its ongoing operations, continues to advance its drug product candidates through pre-clinical studies and clinical trials, seek regulatory approvals for its drug product candidates, scale-up manufacturing capabilities and hire additional personnel to support the development of its drug product candidates and to enhance its operational, financial and information management systems.

The main assets of the Company are intellectual property rights concerning technologies that have not led to commercialization of any product. Celyad has never been profitable and has never commercialized any (pharmaceutical) product.

Even if the Company succeeds in commercializing one or more of its drug product candidates, it will continue to incur losses for the foreseeable future relating to its substantial research and development expenditures to develop its technologies. The Company anticipates that its expenses will increase substantially if and as the Company:

- continues its research, pre-clinical and clinical development of its drug product candidates;
- expands the scope of therapeutic indications of its current clinical studies for its drug product candidates;
- initiates additional pre-clinical studies or additional clinical trials of existing drug product candidates or new drug product candidates;
- further develops the manufacturing process for its drug product candidates;
- changes or adds additional manufacturers or suppliers;
- seeks regulatory and marketing approvals for its drug product candidates that successfully complete clinical studies;

- establishes a sales, marketing and distribution infrastructure to commercialize any products for which the Company may obtain marketing approval, in the European Union and the United States;
- makes milestone or other payments under any in-license agreements; and
- maintains, protects and expands its intellectual property portfolio.

The Company may encounter unforeseen expenses, difficulties, complications, delays and other unknown factors that may adversely affect its business. The size of its future net losses will depend, in part, on the rate of future growth of its expenses and its ability to generate revenue.

Its prior losses and expected future losses have had and will continue to have an adverse effect on its shareholders' equity and working capital. Further, the net losses the Company incurs may fluctuate significantly from quarter to quarter and year to year, such that a period to period comparison of its results of operations may not be a good indication of its future performance.

The Company may need substantial additional funding, which may not be available on acceptable terms when needed, if at all.

The Company's operations have required substantial amounts of cash since inception. The Company expects to continue to spend substantial amounts to continue the clinical development of its drug product candidates, including its ongoing and planned clinical trials for CAR-T NKG2D and any future drug product candidates. If one or several product candidates are approved by the relevant competent authority, the Company will require significant additional amounts in order to launch and commercialize its drug product candidates.

On 31 December 2018, the Company had €40.5 million in cash and cash equivalent and €9.2 million in short term investments. On 22 May 2018 the Company secured a share capital increase of €46,1 million through a global offering on both US and European markets (see section 14.1 of this document).

The Company believes that such resources will be sufficient to fund its operations for at least the next 12 months from the date of this registration document. However, changing circumstances may cause it to increase its spending significantly faster than it currently anticipates, and the Company may need to spend more money than currently expected because of circumstances beyond its control. The Company may require additional capital for the further development and commercialization of its drug product candidates and may need to raise additional funds sooner if the Company chooses to expand more rapidly than it presently anticipates.

The Company's ability to raise additional funds will depend on financial, economic and market conditions and other factors, over which it may have no or limited control, and the Company cannot guarantee that additional funds will be available to it when necessary on commercially acceptable terms, if at all. If the necessary funds are not available, the Company may need to seek funds through collaborations and licensing arrangements, which may require it to reduce or relinquish significant rights to its research programs and product candidates, to grant licenses on its technologies to partners or third parties or enter into new collaboration agreements, the terms could be less favourable to the Company than those it might have obtained in a different context. If adequate funds are not available on commercially acceptable terms when needed, the Company may be forced to delay, reduce or terminate the development or commercialization of all or part of its research programs or product candidates or it may be unable to take advantage of future business opportunities.

Raising additional capital may cause dilution to its existing shareholders, restrict its operations or require the Company to relinquish rights to its drug product candidates or technologies.

The Company may seek additional funding through a combination of equity offerings, debt financings, collaborations and/or licensing arrangements. To the extent that the Company raises additional capital through the sale of equity or convertible debt securities, the shareholders will be diluted, and the terms may include liquidation or other preferences that adversely affect your rights as a shareholder. The incurrence of indebtedness and/or the issuance of certain equity securities could result in increased fixed payment obligations and could also result in certain additional restrictive covenants, such as limitations on its ability to incur additional debt and/or issue additional equity, limitations on its ability to acquire or license intellectual property rights and other operating restrictions that could adversely impact its ability to conduct its business. In addition, issuance of additional equity securities, or the possibility of such issuance, may cause the market price of the Shares to decline. In the event that the Company enters into collaborations and/or licensing arrangements in order to raise capital, it may be required to accept unfavorable terms, including relinquishing or licensing to a third party on unfavorable terms its rights to technologies or drug product candidates that the Company otherwise would seek to develop or commercialize ourselves or potentially reserve for future potential arrangements when the Company might be able to achieve more favorable terms.

The Company may be exposed to significant foreign exchange risk.

The Company incurs portions of its expenses, and may in the future derive revenues, in currencies other than the euro, in particular, the U.S. dollar. As a result, the Company is exposed to foreign currency exchange risk as its results of operations and cash flows are subject to fluctuations in foreign currency exchange rates. The Company currently does not engage in hedging transactions to protect against uncertainty in future exchange rates between particular foreign currencies and the euro. Therefore, for example, an increase in the value of the euro against the U.S. dollar could be expected to have a negative impact on its revenue and earnings growth as U.S. dollar revenue and earnings, if any, would be translated into euros at a reduced value. The Company cannot predict the impact of foreign currency fluctuations, and foreign currency fluctuations in the future may adversely affect its financial condition, results of operations and cash flows.

1.2 Risk related to product development, regulatory approval and commercialization

The Company is heavily dependent on the regulatory approval of CYAD-01 in the United States and Europe, and subsequent commercial success of CYAD-01, both of which may never occur.

The Company is a clinical-stage biopharmaceutical company with no products approved by regulatory authorities or available for commercial sale. The Company may be unable to develop or commercialise a product, product candidate or research programme, or may cease some of its operations, which may have a material adverse effect on the Company's business. On 22 December 2017, the Company notified the Walloon Region of its decision not to pursue the exploitation of the C Cure programs and the research work financed by recoverable loans from the Walloon Region. The Company has justified its decision by the intention to focus its strategy and resources on its immune-oncology programs and by the fact that it has not been successful to identify a partner to pursue the development of C Cure.

The Company has generated limited revenue to date and does not expect to generate any revenue from product sales for the foreseeable future. As a result, its future success is currently dependent upon the regulatory approval and commercial success of CYAD-01 in one or more of the indications for which the Company intends to seek approval. The Company Its ability to generate revenues in the near term

will depend on its ability to obtain regulatory approval and successfully commercialize CYAD-01 on its own in the United States, the first country in which the Company intends to seek approval for CYAD-01. The Company may experience delays in obtaining regulatory approval in the United States for CYAD-01, if it is approved at all, and the price of its ordinary shares and/or ADSs may be negatively impacted. Even if the Company receives regulatory approval, the timing of the commercial launch of CYAD-01 in the United States is dependent upon a number of factors, including, but not limited to, hiring sales and marketing personnel, pricing and reimbursement timelines, the production of sufficient quantities of commercial drug product and implementation of marketing and distribution infrastructure.

In addition, the Company has incurred and expect to continue to incur significant expenses as the Company continues to pursue the approval of CYAD-01 in the United States, Europe and elsewhere. The Company plans to devote a substantial portion of its effort and financial resources in order to continue to grow its operational capabilities. This represents a significant investment in the clinical and regulatory success of CYAD-01, which is uncertain. The success of CYAD-01, if approved, and revenue from commercial sales, will depend on several factors, including:

- execution of an effective sales and marketing strategy for the commercialization of CYAD-01;
- acceptance by patients, the medical community and third-party payors;
- its success in educating physicians and patients about the benefits, administration and use of CYAD-01;
- the incidence and prevalence of the indications for which its CYAD-01 drug product candidate is approved in those markets in which CYAD-01 is approved;
- the prevalence and severity of side effects, if any, experienced by patients treated with CYAD-01;
- the availability, perceived advantages, cost, safety and efficacy of alternative treatments, including potential alternate treatments that may currently be available or in development or may later be available or in development or approved by regulatory authorities;
- successful implementation of its manufacturing processes that the Company plans to include in a future biologics license applications and production of sufficient quantities of commercial drug product;
- maintaining compliance with regulatory requirements, including current good manufacturing practices (cGMPs), good laboratory practices (GLP) and good clinical practices (GCPs); and
- obtaining and maintaining patent, trademark and trade secret protection and regulatory exclusivity and otherwise protecting its rights in its intellectual property portfolio.

The Company may also fail in its efforts to develop and commercialize future drug product candidates, including CYAD-101 (the allogeneic version of its CYAD-01 drug product candidate). If this were to occur, the Company would continue to be heavily dependent on the regulatory approval and successful commercialization of CYAD-01, its development costs may increase and its ability to generate revenue or profits, or to raise additional capital, could be impaired.

The achievement of milestones (R&D, scientific, clinical, regulatory, business) will trigger payment obligations towards Celdara and Darthmouth, which will negatively impact Celyad's profitability.

Its THINK trial is ongoing and not complete. Initial success in its ongoing clinical trial may not be indicative of results obtained when this trial is completed. Furthermore, success in early clinical trials may not be indicative of results obtained in later trials.

Its clinical experience with its lead drug product candidate CYAD-01 is limited. The Company has treated a small number of patients as of the date of this report. In particular, the results of the CM-CS1 trial and the interim results of the THINK trial should not be relied upon as evidence that its ongoing or future clinical trials will succeed. Trial designs and results from previous or ongoing trials are not necessarily predictive of future clinical trial results, and initial or interim results may not continue or be confirmed upon completion of the trial. These data, or other positive data, may not continue or occur for these patients or for any future patients in its ongoing or future clinical trials, and may not be repeated or observed in ongoing or future trials involving its drug product candidates. There is limited data concerning long-term safety and efficacy following treatment with CYAD-01. Its drug product candidates may fail to show the desired safety and efficacy in later stages of clinical development despite having successfully advanced through initial clinical trials. There can be no assurance that any of these trials will ultimately be successful or support further clinical advancement or regulatory approval of CYAD-01 or other drug product candidates.

There is a high failure rate for drugs and biologics proceeding through clinical trials. A number of companies in the pharmaceutical and biotechnology industries have suffered significant setbacks in later stage clinical trials even after achieving promising results in earlier stage clinical trials. Data obtained from preclinical and clinical activities are subject to varying interpretations, which may delay, limit or prevent regulatory approval. In addition, regulatory delays or rejections may be encountered as a result of many factors, including changes in regulatory policy during the period of product development.

In previous clinical trials involving T cell-based immunotherapies, some patients experienced serious adverse events. Our lead drug product candidate CYAD-01 may demonstrate a similar effect or have other properties that could halt its clinical development, prevent its regulatory approval, limit its commercial potential, or result in significant negative consequences.

In previous and ongoing clinical trials involving CAR-T cell products by other companies or academic researchers, many patients experienced side effects such as neurotoxicity and CRS, which have in some cases resulted in clinical holds in ongoing clinical trials of CAR-T drug product candidates. There have been life threatening events related to severe neurotoxicity and CRS, requiring intense medical intervention such as intubation or pressor support, and in several cases, resulted in death. Severe neurotoxicity is a condition that is currently defined clinically by cerebral edema, confusion, drowsiness, speech impairment, tremors, seizures, or other central nervous system side effects, when such side effects are serious enough to lead to intensive care. In some cases, severe neurotoxicity was thought to be associated with the use of certain lymphodepletion preconditioning regimens used prior to the administration of the CAR-T cell products. CRS is a condition that is currently defined clinically by certain symptoms related to the release of cytokines, which can include fever, chills, low blood pressure, when such side effects are serious enough to lead to intensive care with mechanical ventilation or significant vasopressor support. The exact cause or causes of CRS and severe neurotoxicity in connection with treatment of CAR-T cell products is not fully understood at this time. In addition, patients have experienced other adverse events in these studies, such as a reduction in the number of blood cells (in the form of neutropenia, thrombocytopenia, anemia or other cytopenias), febrile neutropenia, chemical laboratory abnormalities (including elevated liver enzymes), and renal failure.

Undesirable side effects caused by its CYAD-01 drug product candidate or other T cell-based immunotherapy drug product candidates, could cause the Company or regulatory authorities to interrupt, delay or halt clinical trials and could result in a more restrictive label or the delay or denial of regulatory approval by the FDA or other comparable foreign regulatory authorities. Results of its trials could reveal a high and unacceptable severity and prevalence of side effects or unexpected characteristics. Treatment-related side effects could also affect patient recruitment or the ability of enrolled patients to complete the trials or result in potential product liability claims. In addition, these side effects may not be appropriately recognized or managed by the treating medical staff, as toxicities resulting from T cell-based immunotherapies are not normally encountered in the general patient population and by medical personnel. The Company expects to have to train medical personnel regarding its T cell-based immunotherapy drug product candidates to understand their side effects for both its planned clinical trials and upon any commercialization of any T cell-based immunotherapy drug product candidates. Inadequate training in recognizing or managing the potential side effects of T cell-based immunotherapy drug product candidates could result in patient deaths. Any of these occurrences could have a material adverse effect on its business, financial condition and prospects.

CYAD-01 drug product candidate is a new approach to cancer treatment that presents significant challenges.

The Company has concentrated its research and development efforts on cell-based immunotherapy technology, and its future success is highly dependent on the successful development of cell-based immunotherapies in general and in particular its approach using NKG2D receptor ligands, an activating receptor of NK cells. The Company cannot be sure that its T cell immunotherapy technologies will yield satisfactory products that are safe and effective, scalable or profitable.

Its approach to cancer immunotherapy and cancer treatment generally poses a number of challenges, including:

- obtaining regulatory approval from the FDA and other regulatory authorities that have very limited experience with the commercial development of genetically modified T cell therapies for cancer;
- developing and deploying consistent and reliable processes for engineering a patient's T cells ex vivo and infusing the engineered T cells back into the patient;
- preconditioning patients with chemotherapy or other product treatments in conjunction with delivering each of its drug product candidates, which may increase the risk of adverse side effects;
- educating medical personnel regarding the potential side effect profile of each of its drug product candidates, such as the potential adverse side effects related to cytokine release or neurotoxicity;
- developing processes for the safe administration of these drug product candidates, including long-term follow-up for all patients who receive its drug product candidates;
- sourcing clinical and, if approved, commercial supplies for the materials used to manufacture and process its drug product candidates;

- developing a manufacturing process and distribution network with a cost of goods that allows for an attractive return on investment;

- establishing sales and marketing capabilities after obtaining any regulatory approval to gain market acceptance, and obtaining adequate coverage, reimbursement, and pricing by third-party payors and government authorities; and

- developing therapies for types of cancers beyond those addressed by its current drug product candidates.

Additionally, because its technology involves the genetic modification of patient cells ex vivo using a virus, the Company is subject to many of the challenges and risks that gene therapies face, including:

- Regulatory requirements governing gene and cell therapy products have changed frequently and may continue to change in the future. To date, only one product that involves the genetic modification of patient cells has been approved in the United States and only one has been approved in the European Union.

- In the event of improper insertion of a gene sequence into a patient's chromosome, genetically modified products could lead to lymphoma, leukaemia or other cancers, or other aberrantly functioning cells.

- Although its viral vectors are not able to replicate, there is a risk with the use of retroviral or lentiviral vectors that they could lead to new or reactivated pathogenic strains of virus or other infectious diseases.

- The FDA recommends a 15-year follow-up observation period for all patients who receive treatment using gene therapies, and the Company may need to adopt such an observation period for its drug product candidates.

- Clinical trials using genetically modified cells conducted at institutions that receive funding for recombinant DNA research from the National Institutes of Health, are subject to review by the Recombinant DNA Advisory Committee (RAC). Although the FDA decides whether individual protocols may proceed, the RAC review process can impede the initiation of a clinical trial, even if the FDA has reviewed the study and approved its initiation.

Moreover, public perception of therapy safety issues, including adoption of new therapeutics or novel approaches to treatment, may adversely influence the willingness of subjects to participate in clinical trials, or if approved, of physicians to subscribe to the novel treatment mechanics. Physicians, hospitals and third-party payors often are slow to adopt new products, technologies and treatment practices that require additional upfront costs and training. Physicians may not be willing to undergo training to adopt this novel and personalized therapy, may decide the therapy is too complex to adopt without appropriate training and may choose not to administer the therapy. Based on these and other factors, hospitals and payors may decide that the benefits of this new therapy do not or will not outweigh its costs.

The Company has not yet finalized its clinical development program for CYAD-01 in AML and CRC. The FDA and comparable foreign regulators may not agree with its proposed protocols for these clinical trials, which could result in delays.

The Company is still considering the clinical development program for CYAD-01 in AML and CRC. Prior to initiating new clinical trials for its drug product candidates, The Company is required to submit clinical trial protocols for these trials to the FDA and comparable foreign regulators in other jurisdictions where the Company plans to undertake clinical trials. The Company may not reach agreement with these regulators, or there may be a delay in reaching agreement. These regulators may want to see additional clinical or preclinical data regarding its CYAD-01 drug product candidate before the Company initiates new clinical trials. Any of these decisions could have a material adverse effect on its expected clinical and regulatory timelines, business, prospects, financial condition and results of operations.

The Company may encounter substantial delays in its clinical trials or may fail to demonstrate safety and efficacy to the satisfaction of applicable regulatory authorities.

Before obtaining regulatory approval or marketing authorization from regulatory authorities for the sale of its drug product candidates, if at all, the Company must conduct extensive clinical trials to demonstrate the safety and efficacy of the drug product candidates in humans. Clinical testing is expensive, time-consuming and uncertain as to outcome. The Company cannot guarantee that any clinical trials will be conducted as planned or completed on schedule, if at all. A failure of one or more clinical trials can occur at any stage of testing. Events that may prevent successful or timely completion of clinical development include:

- delays in raising, or inability to raise, sufficient capital to fund the planned clinical trials;
- delays in reaching a consensus with regulatory agencies on trial design;
- identifying, recruiting and training suitable clinical investigators;
- delays in reaching agreement on acceptable terms with prospective clinical research organizations, or CROs, and clinical trial sites;
- delays in obtaining required Investigational Review Board, or IRB, approval at each clinical trial site;
- delays in recruiting suitable patients to participate in its clinical trials;
- delays due to changing standard of care for the diseases the Company is studying;
- adding new clinical trial sites;
- imposition of a clinical hold by regulatory agencies, after an inspection of its clinical trial operations or trial sites;
- failure by its CROs, other third parties or the Company to adhere to clinical trial requirements;
- catastrophic loss of drug product candidates due to shipping delays or delays in customs in connection with delivery to foreign countries for use in clinical trials;
- failure to perform in accordance with the FDA's good clinical practices, or GCPs, or applicable regulatory guidelines in other countries;
- delays in the testing, validation, manufacturing and delivery of its drug product candidates to the clinical sites;
- delays in having patients complete participation in a trial or return for post-treatment follow-up;
- clinical trial sites or patients dropping out of a trial;
- occurrence of serious adverse events associated with the drug product candidate that are viewed to outweigh its potential benefits; or

- changes in regulatory requirements and guidance that require amending or submitting new clinical protocols.

Any inability to successfully complete pre-clinical and clinical development could result in additional costs to the Company or impair its ability to generate revenues from product sales, regulatory and commercialization milestones and royalties. Clinical trial delays could also shorten any periods during which the Company may have the exclusive right to commercialize its drug product candidates or allow its competitors to bring products to market before the Company does, which could impair its ability to successfully commercialize its drug product candidates and may harm its business and results of operations.

If the results of its clinical trials are inconclusive or if there are safety concerns or adverse events associated with its drug product candidates, the Company may:

- be delayed in obtaining marketing approval for its drug product candidates, if at all;
- obtain approval for indications or patient populations that are not as broad as intended or desired;
- obtain approval with labeling that includes significant use or distribution restrictions or safety warnings;
- be subject to changes in the way the product is administered;
- be required to perform additional clinical trials to support approval or be subject to additional post-marketing testing requirements;
- have regulatory authorities withdraw their approval of the product or impose restrictions on its distribution in the form of a risk evaluation and mitigations strategy, or REMS, plan;
- be subject to the addition of labeling statements, such as warnings or contraindications;
- be sued; or
- experience damage to its reputation.

Its drug product candidates could potentially cause other adverse events that have not yet been predicted. As described above, any of these events could prevent the Company from achieving or maintaining market acceptance of its drug product candidates and impair its ability to commercialize its products if they are ultimately approved by applicable regulatory authorities.

The Company's drug product candidates may cause undesirable side effects or have other properties that could halt their clinical development, prevent their regulatory approval, limit their commercial potential, or result in significant negative consequences.

As with most biological drug products, use of its drug product candidates could be associated with side effects or adverse events which can vary in severity from minor reactions to death and in frequency from infrequent to prevalent. Undesirable side effects or unacceptable toxicities caused by its drug product candidates could cause the Company or regulatory authorities to interrupt, delay, or halt clinical trials. The FDA, EMA, or comparable foreign regulatory authorities could delay or deny approval of its drug product candidates for any or all targeted indications and negative side effects could result in a more restrictive label for any product that is approved. Side effects such as toxicity or other safety issues associated with the use of its drug product candidates could also require the Company or its collaborators to perform additional studies or halt development or sale of these drug product candidates.

Treatment-related side effects could also affect patient recruitment or the ability of enrolled subjects to complete the trial, or could result in potential product liability claims. In addition, these side effects may

not be appropriately or timely recognized or managed by the treating medical staff. Any of these occurrences may materially and adversely harm its business, financial condition and prospects.

Additionally, if one or more of its drug product candidates receives marketing approval, and the Company or others later identify undesirable side effects caused by such products, including during any long-term follow-up observation period recommended or required for patients who receive treatment using its products, a number of potentially significant negative consequences could result, including:

- regulatory authorities may withdraw approvals of such product;
- regulatory authorities may require additional warnings on the label;
- the Company may be required to create a REMS plan which could include a medication guide outlining the risks of such side effects for distribution to patients, a communication plan for healthcare providers, and/or other elements to assure safe use;
- the Company could be sued and held liable for harm caused to patients; and
- its reputation may suffer.

Any of the foregoing could prevent the Company from achieving or maintaining market acceptance of the particular drug product candidate, if approved, and could significantly harm its business, results of operations, and prospects.

If the Company encounters difficulties enrolling patients in its clinical trials, its clinical development activities could be delayed or otherwise adversely affected.

The timely completion of clinical trials in accordance with their protocols depends, among other things, on its ability to enrol a sufficient number of patients who remain in the trial until its conclusion. The Company may experience difficulties in patient enrolment in its clinical trials for a variety of reasons, including:

- the size and nature of the patient population;
- the patient eligibility criteria defined in the protocol;
- the size of the study population required for analysis of the trial's primary endpoints;
- the proximity of patients to trial sites;
- the design of the trial;
- its ability to recruit clinical trial investigators with the appropriate competencies and experience;
- competing clinical trials for similar therapies;
- clinicians' and patients' perceptions as to the potential advantages and side effects of the drug product candidate being studied in relation to other available therapies, including any new drugs or treatments that may be approved for the indications the Company is investigating;
- its ability to obtain and maintain patient consents; and
- the risk that patients enrolled in clinical trials will not complete a clinical trial.

In addition, its clinical trials will compete with other clinical trials for drug product candidates that are in the same therapeutic areas as its drug product candidates, and this competition will reduce the number and types of patients available to the Company, because some patients who might have opted to enrol in its trials may instead opt to enrol in a trial being conducted by one of its competitors. Because the number of qualified clinical investigators is limited, the Company expects to conduct some of its clinical trials at the same clinical trial sites that some of its competitors use, which will reduce the number of

patients who are available for its clinical trials at such clinical trial sites. Moreover, because its drug product candidates represent a departure from more commonly used methods for ischemic HF and cancer treatment, potential patients and their doctors may be inclined to use conventional therapies, rather than enrol patients in its clinical trials.

Even if the Company is able to enrol a sufficient number of patients in its clinical trials, delays in patient enrolment may result in increased costs or may affect the timing or outcome of its clinical trials, which could prevent completion of these trials and adversely affect its ability to advance the development of its drug product candidates.

Clinical development is a lengthy and expensive process with an uncertain outcome, and results of earlier studies and trials as well as data from any interim analysis of ongoing clinical trials may not be predictive of future trial results. Clinical failure can occur at any stage of clinical development.

Clinical testing is expensive and can take many years to complete, and its outcome is inherently uncertain. Failure can occur at any time during the clinical trial process. Although drug product candidates may demonstrate promising results in early clinical (human) trials and pre-clinical (animal) studies, they may not prove to be effective in subsequent clinical trials. For example, testing on animals may occur under different conditions than testing in humans and therefore the results of animal studies may not accurately predict human experience. Likewise, early clinical trials may not be predictive of eventual safety or effectiveness results in larger-scale pivotal clinical trials. The results of pre-clinical studies and previous clinical trials as well as data from any interim analysis of ongoing clinical trials of its drug product candidates, as well as studies and trials of other products with similar mechanisms of action to its drug product candidates, may not be predictive of the results of ongoing or future clinical trials. Drug product candidates in later stages of clinical trials may fail to show the desired safety and efficacy traits despite having progressed through pre-clinical studies and earlier clinical trials. In addition to the safety and efficacy traits of any drug product candidate, clinical trial failures may result from a multitude of factors including flaws in trial design, dose selection, placebo effect and patient enrolment criteria. Based upon negative or inconclusive results, the Company or its collaborators may decide, or regulators may require it, to conduct additional clinical trials or pre-clinical studies. In addition, data obtained from trials and studies are susceptible to varying interpretations, and regulators may not interpret its data as favourably as the Company does, which may delay, limit or prevent regulatory approval.

The regulatory approval processes of the FDA, EMA and other comparable regulatory authorities is lengthy, time-consuming, and inherently unpredictable, and the Company may experience significant delays in the clinical development and regulatory approval, if any, of its drug product candidates.

The research, testing, manufacturing, labelling, approval, selling, import, export, marketing, and distribution of drug products, including biologics, are subject to extensive regulation by the FDA, EMA and other comparable regulatory authorities. The Company is not permitted to market any biological drug product in the United States until the Company receives a Biologics License Application, or BLA, from the FDA or a marketing authorization application, or MAA, from the EMA. the Company has not previously submitted a BLA to the FDA, MAA to the EMA, or similar approval filings to comparable foreign authorities. A BLA must include extensive pre-clinical and clinical data and supporting information to establish that the drug product candidate is safe, pure, and potent for each desired indication. The BLA must also include significant information regarding the chemistry, manufacturing, and controls for the product, and the manufacturing facilities must complete a successful pre-license inspection. The Company expects the nature of its drug product candidates to create further challenges in obtaining regulatory approval. For example, the FDA and EMA have limited experience with

commercial development of genetically modified T-cell therapies for cancer. The FDA may also require a panel of experts, referred to as an Advisory Committee, to deliberate on the adequacy of the safety and efficacy data to support licensure. The opinion of the Advisory Committee, although not binding, may have a significant impact on its ability to obtain licensure of the drug product candidates based on the completed clinical trials. Accordingly, the regulatory approval pathway for its drug product candidates may be uncertain, complex, expensive, and lengthy, and approval may not be obtained.

Obtaining and maintaining regulatory approval of its drug product candidates in one jurisdiction does not mean that the Company will be successful in obtaining regulatory approval of its drug product candidates in other jurisdictions.

If the Company obtains and maintains regulatory approval of its drug product candidates in one jurisdiction, such approval does not guarantee that the Company will be able to obtain or maintain regulatory approval in any other jurisdiction, but a failure or delay in obtaining regulatory approval in one jurisdiction may have a negative effect on the regulatory approval process in others. For example, even if the FDA or EMA grants marketing approval of a drug product candidate, comparable regulatory authorities in foreign jurisdictions must also approve the manufacturing, marketing and promotion of the drug product candidate in those countries. Approval procedures vary among jurisdictions and can involve requirements and administrative review periods different from those in the European Union or in the United States, including additional pre-clinical studies or clinical trials as clinical trials conducted in one jurisdiction may not be accepted by regulatory authorities in other jurisdictions. In many jurisdictions, a drug product candidate must be approved for reimbursement before it can be approved for sale in that jurisdiction. In some cases, the price that the Company intends to charge for its products is also subject to approval.

Obtaining foreign regulatory approvals and compliance with foreign regulatory requirements could result in significant delays, difficulties and costs for the Company and could delay or prevent the introduction of its products in certain countries. If the Company fails to comply with the regulatory requirements in international markets and/or to receive applicable marketing approvals, its target market will be reduced and its ability to realize the full market potential of its drug product candidates will be harmed.

Even if the Company obtains regulatory approval of its drug product candidates, the products may not gain market acceptance among physicians, patients, hospitals and others in the medical community.

Its autologous engineered-cell therapies may not become broadly accepted by physicians, patients, hospitals, and others in the medical community. Numerous factors will influence whether its drug product candidates are accepted in the market, including:

- the clinical indications for which its drug product candidates are approved;
- physicians, hospitals, and patients considering its drug product candidates as a safe and effective treatment;
- the potential and perceived advantages of its drug product candidates over alternative treatments;
- the prevalence and severity of any side effects;
- product labeling or product insert requirements of the FDA, EMA, or other regulatory authorities;
- limitations or warnings contained in the labeling approved by the FDA or EMA;

- the timing of market introduction of its drug product candidates as well as competitive products;
- the cost of treatment in relation to alternative treatments;
- the availability of adequate coverage, reimbursement and pricing by third-party payors and government authorities;
- the willingness of patients to pay out-of-pocket in the absence of coverage by third-party payors and government authorities;
- relative convenience and ease of administration, including as compared to alternative treatments and competitive therapies; and
- the effectiveness of its sales and marketing efforts.

In addition, although the Company is not utilizing embryonic stem cells in its drug product candidates, adverse publicity due to the ethical and social controversies surrounding the therapeutic use of such technologies, and reported side effects from any clinical trials using these technologies or the failure of such trials to demonstrate that these therapies are safe and effective may limit market acceptance its drug product candidates due to the perceived similarity between its drug product candidates and these other therapies. If its drug product candidates are approved but fail to achieve market acceptance among physicians, patients, hospitals, or others in the medical community, the Company will not be able to generate significant revenue.

Even if its products achieve market acceptance, the Company may not be able to maintain that market acceptance over time if new products or technologies are introduced that are more favourably received than its products, are more cost effective or render its products obsolete.

Its drug product candidates are biologics, which are complex to manufacture, and the Company may encounter difficulties in production, particularly with respect to process development or scaling-out of its manufacturing capabilities. If the Company or any of its third-party manufacturers encounters such difficulties, its ability to provide supply of its drug product candidates for clinical trials or its products for patients, if approved, could be delayed or stopped, or the Company may be unable to maintain a commercially viable cost structure.

Its drug product candidates are biologics and the process of manufacturing its products is complex, highly-regulated and subject to multiple risks. The manufacture of its drug product candidates involves complex processes, including harvesting cells from patients, selecting and expanding certain cell types, engineering or reprogramming the cells in a certain manner to create either cardiopoietic cells or CAR T-cells, expanding the cell population to obtain the desired dose, and ultimately infusing the cells back into a patient's body. As a result of the complexities, the cost to manufacture its drug product candidates, is higher than traditional small molecule chemical compounds, and the manufacturing process is less reliable and is more difficult to reproduce. Its manufacturing process is susceptible to product loss or failure due to logistical issues associated with the collection of blood cells, or starting material, from the patient, shipping such material to the manufacturing site, shipping the final product back to the patient, and infusing the patient with the product, manufacturing issues associated with the differences in patient starting materials, interruptions in the manufacturing process, contamination, equipment or reagent failure, improper installation or operation of equipment, vendor or operator error, inconsistency in cell growth, and variability in product characteristics. Even minor deviations from normal manufacturing processes could result in reduced production yields, product defects, and other supply disruptions. Because some of its drug product candidates are manufactured for each particular patient, the Company is required to maintain a chain of identity with respect to materials as they move from the patient to the manufacturing facility, through the manufacturing process, and back to the patient. Maintaining such a

chain of identity is difficult and complex, and failure to do so could result in adverse patient outcomes, loss of product, or regulatory action including withdrawal of its products from the market. Further, as drug product candidates are developed through pre-clinical to late stage clinical trials towards approval and commercialization, it is common that various aspects of the development program, such as manufacturing methods, are altered along the way in an effort to optimize processes and results. Such changes carry the risk that they will not achieve these intended objectives, and any of these changes could cause its drug product candidates to perform differently and affect the results of ongoing clinical trials or other future clinical trials.

Although the Company is working, or will be working, to develop commercially viable processes for the manufacture of its drug product candidates, doing so is a difficult and uncertain task, and there are risks associated with scaling to the level required for later-stage clinical trials and commercialization, including, among others, cost overruns, potential problems with process scale-out, process reproducibility, stability issues, lot consistency, and timely availability of reagents or raw materials. We may ultimately be unable to reduce the cost of goods for its drug product candidates to levels that will allow for an attractive return on investment if and when those drug product candidates are commercialized.

In addition, the manufacturing process that the Company develops for its drug product candidates is subject to regulatory authorities' approval process, and the Company will need to make sure that the Company or its contract manufacturers, or CMOs, if any, are able to meet all regulatory authorities requirements on an ongoing basis. If the Company or its CMOs are unable to reliably produce drug product candidates to specifications acceptable to the regulatory authorities, the Company may not obtain or maintain the approvals the Company needs to commercialize such drug product candidates. Even if the Company obtains regulatory approval for any of its drug product candidates, there is no assurance that either the Company or its CMOs will be able to manufacture the approved product to specifications acceptable to the regulatory authorities, to produce it in sufficient quantities to meet the requirements for the potential launch of the product, or to meet potential future demand. Any of these challenges could have an adverse effect on its business, financial condition, results of operations and growth prospects.

Nearly all aspects of the Company's activities are subject to substantial regulation. No assurance can be given that any of the Company's product candidates will fulfil regulatory compliance. Failure to comply with such regulations could result in delays, suspension, refusals, fines and withdrawal of approvals.

The international pharmaceutical and medical technology industry is highly regulated by government bodies (hereinafter the "Competent Authorities") that impose substantial requirements covering nearly all aspects of the Company's activities notably on research and development, manufacturing, pre-clinical tests, clinical trials, labelling, marketing, sales, storage, record keeping, promotion and pricing of its research programmes and product candidates. Compliance with standards laid down by local Competent Authorities is required in each country where the Company, or any of its partners or licensees, conducts said activities in whole or in part. The Competent Authorities notably include the European Medicine Agency ("EMA") in the European Union and the Food and Drug Administration ("FDA") in the United States.

There can be no assurance that product candidates of the Company will fulfil the criteria required to obtain necessary regulatory clearance to access the market. Also, at this time, the Company cannot guarantee or know the exact nature, precise timing and detailed costs of the efforts that will be necessary to complete the remainder of the development of its research programmes and products candidates.

The specific regulations and laws, as well as the time required to obtain Competent Authorities approvals, may vary from country to country, but the general regulatory procedures are similar in the European Union and the United States of America. Each Competent Authority may impose its own requirements, may discontinue an approval, may refuse to grant approval, or may require additional data before granting approval, notwithstanding that approval may have been granted by one or more other Competent Authorities. Competent Authority approval may be delayed, limited or denied for a number of reasons, most of which are beyond the Company's control. Such reasons include the production process or site not meeting the applicable requirements for the manufacture of regulated products, or the products not meeting applicable requirements for safety or efficacy during the clinical development stage or after marketing. No assurance can be given that clinical trials will be approved by Competent Authorities or that products will be approved for marketing by Competent Authorities in any pre-determined indication or intended use. Competent Authorities may disagree with the Company's interpretation of data submitted for their review. Even after obtaining approval for clinical trials or marketing, products will be subject to ongoing regulation and evaluation of their benefit/safety or risk/performance ratio; a negative evaluation of the benefit/safety or risk/performance ratio could result in a potential use restriction and/or withdrawal of approval for one or more products. At any time Competent Authorities may require discontinuation or holding of clinical trials or require additional data prior to completing their review or may issue restricted authorisation or authorise products for clinical trials or marketing for narrower indications than requested or require further data or studies be conducted and submitted for their review. There can be no guarantee that such additional data or studies, if required, will corroborate earlier data.

Research programmes and product candidates of the Company must undergo rigorous pre-clinical tests and clinical trials, the start, timing of completion, number and results of which are uncertain and could substantially delay or prevent the products from reaching the market.

Pre-clinical tests and clinical trials are expensive and time-consuming and their results are uncertain. The Company, its collaborative partners or other third parties may not successfully complete the pre-clinical tests and clinical trials of the research programmes and product candidates. Failure to do so may delay or prevent the commercialisation of products. The Company cannot guarantee that its research programmes and product candidates will demonstrate sufficient safety or efficacy or performance in its pre-clinical tests and clinical trials to obtain marketing authorisation in any given territory or at all, and the results from earlier pre-clinical tests and clinical trials may not accurately predict the results of later-stage pre-clinical tests and clinical trials. At any stage of development, based on a review of available pre-clinical and clinical data, the estimated costs of continued development, market assessments and other factors, the development of any of the Company's research programmes and product candidates may be suspended or discontinued.

Clinical trials can be delayed for a variety of reasons, including, but not limited to, delays in obtaining regulatory approval to commence a trial, in reaching agreement on acceptable terms with prospective contract research organisations (CROs) and contract manufacturing organisations (CMO's) and clinical trial sites, in obtaining ethics committee approval, in recruiting suitable patients to participate in a trial, in having patients complete a trial or return for follow-up, in adding new sites or in obtaining sufficient supplies of clinical trial materials or clinical sites dropping out of a trial and in the availability to the Company of appropriate clinical trial insurances. Such delays could result in increased costs and delay or jeopardise the Company's ability to obtain regulatory approval and commence product sales as currently contemplated. Many factors affect patient enrolment, including, but not limited to, the size and nature of the patient population, the proximity of patients to clinical sites, the eligibility criteria for the trial, the design of the clinical trial, competing clinical trials, clinicians' and patients' perceptions as to the potential advantages of the product being studied in relation to other available therapies, including

any new products that may be approved for the indications the Company is investigating and whether the clinical trial design involves comparison to placebo or standard of care. If the Company experiences lower than expected enrolment in the trials, the trials may not be completed as envisaged or may become more expensive to complete. The Company and its collaborative partners are, or may become subject to, numerous ongoing regulatory obligations, such as data protection, environmental, health and safety laws and restrictions on the experimental use of animals and/or human beings. The costs of compliance with applicable regulations, requirements or guidelines could be substantial, and failure to comply could result in sanctions, including fines, injunctions, civil penalties, denial of applications for marketing authorisation of its products, delays, suspension or withdrawal of approvals, licence revocation, seizures or recalls of products, operating restrictions and criminal prosecutions, any of which could significantly increase the Company's or its collaborative partners' costs or delay the development and commercialisation of its product candidates.

The Company may face significant competition and technological change which could limit or eliminate the market opportunity for its product candidates.

The market for pharmaceutical products is highly competitive. The Company's competitors include many established pharmaceutical, biotechnology, universities and other research or commercial institutions, many of which have substantially greater financial, research and development resources than the Company. The fields in which the Company operates are characterised by rapid technological change and innovation. There can be no assurance that competitors of the Company are not currently developing or will not in the future develop technologies and products that are equally or more effective and/or are more economical as any current or future technology or product of the Company. Competing products may gain faster or greater market acceptance than the Company's products and medical advances or rapid technological development by competitors may result in the Company's product candidates becoming non-competitive or obsolete before the Company is able to recover its research and development and commercialisation expenses. If the Company or its product candidates do not compete effectively, it may have a material adverse effect on the Company's business.

The future commercial success of the Company's product candidates will depend on the degree of market acceptance of its products among physicians, patients, healthcare payers and the medical community.

The Company's product candidates are at varying stages of development and the Company may never have a product that is commercially successful. Celyad has to date no product authorised for marketing yet. Due to the inherent risk in the development of pharmaceutical and medical device products, it is probable that not all of the product candidates in Celyad' portfolio will successfully complete development and be marketed.

The Company does not expect to be able to market any of its products for a number of years. Furthermore, when available on the market physicians may not prescribe the Company's products, which would prevent the Company from generating significant revenues or becoming profitable. Market acceptance of the Company's future products by physicians, patients and healthcare payers will depend on a number of factors, many of which are beyond the Company's control, including, but not limited to:

- The wording of the product label;
- Acceptance by physicians, patients and healthcare payers of each product as safe, effective and cost-effective;
- Relative convenience, ease of use, ease of administration and other perceived advantages over alternative products;

- Prevalence and severity of adverse events;
- Limitations, precautions or warnings listed in the summary of product characteristics, patient information leaflet, package labeling or instructions for use;
- The cost of treatment with the Company's products in relation to alternative treatments;
- The extent to which products are approved for inclusion and reimbursed on formularies of hospitals and managed care organizations;
- Whether products are designated in the label and/or under physician treatment guidelines and/or under reimbursement guidelines as a first-line therapy, or as a second-line, or third-line or last-line therapy.

The price setting, the availability and level of adequate reimbursement by third parties, such as insurance companies, governmental and other healthcare payers is uncertain and may impede on the Company's ability to generate sufficient operating margins to offset operating expenses.

The Company's commercial performance will depend in part on the conditions for setting the sales price of its products by the relevant public commissions and bodies and the conditions of their reimbursement by the health agencies or insurance companies in the countries where the Company intends to market its products. The current context of healthcare cost control and economic and financial crisis that most countries are currently facing, coupled with the increase in health care budgets caused by the aging population creates extra pressure on health care spending in most if not all countries. Consequently, pressure on sales prices and reimbursement levels is intensifying owing in particular to;

- Price controls imposed by many states;
- The increasing reimbursement limitations of some products under budgetary policies;
- The heightened difficulty in obtaining and maintaining a satisfactory reimbursement rate for medicines.

Obtaining adequate pricing decisions that would generate return on the investment incurred for the development of the product candidates developed by the Company is therefore uncertain. The Company's ability to manage its expenses and cost structure to adapt to increased pricing pressure is untested and uncertain.

All of these factors will have a direct impact on the Company's ability to make profits on the products in question. The partial/no reimbursement policy of medicines could have a material adverse effect on the business, prospects, financial situation, earnings and growth of the Company.

Changes in regulatory approval policies or enactment of additional regulatory approval requirements may delay or prevent the product candidates from being marketed.

The regulatory clearance process is expensive and time consuming and the timing of marketing is difficult to predict. Once marketed, products may be subject to post-authorisation safety studies or other pharmaco-vigilance or device vigilance activities or may be subject to limitations on their uses or may be withdrawn from the market for various reasons, including if they are shown to be unsafe or ineffective, or when used in a larger population that may be different from the trial population studied prior to market introduction of the product.

The Company's product candidates may become subject to changes in the regulatory framework or market conditions. Regulatory guidelines may change during the course of product development and review process, making the chosen development strategy suboptimal. Market conditions may change

resulting in the emergence of new competitors or new treatment guidelines which may require alterations in the development strategy. These factors may result in significant delays, increased trial costs, significant changes in commercial assumptions or failure of the products to obtain marketing authorisation.

The Company is subject to inspection and shall be subject to market surveillance by the FDA, EMA and other Competent Authorities for compliance with regulations that prohibit the promotion of the Company's products for a purpose or indication other than those for which approval has been granted.

While a product manufacturer may not promote a product for such "off label" use, doctors are allowed, in the exercise of their professional judgment in the practice of medicine, to use a product in ways not approved by Competent Authorities. Off-label marketing regulations are subject to varying evolving interpretations.

Post-approval manufacturing and marketing of Company's products may show different safety and efficacy profiles to those demonstrated in the data on which approval to test or market said products was based. Such circumstances could lead to the withdrawal or suspension of approval, which could have a material adverse effect on the Company's business, financial condition, operating results or cash flows. In addition, Competent Authorities may not approve the labelling claims or advertisements that are necessary or desirable for the successful commercialisation of the Company's products.

Competent Authorities have broad enforcement power, and a failure by the Company or its collaboration partners to comply with applicable regulatory requirements can, among other things, result in recalls or seizures of products, operating and production restrictions, withdrawals of previously approved marketing applications, total or partial suspension of regulatory approvals, refusal to approve pending applications, warning letters, injunctions, penalties, fines, civil proceedings, criminal prosecutions and imprisonment.

1.3 Risks related to the Company's reliance on third parties

The Company has obtained and could obtain significant funding from the Walloon Region. The terms of the agreements signed with the Region may hamper the Company to partner part or all its products.

The Company contracted over the past year numerous funding agreements with the Walloon Region to partially finance its research and development programs. Under the terms of the agreements, the Company would need to obtain the consent of the Walloon Region for any out-licensing agreement or sale to a third party of any or all of its products, prototypes or installations which may reduce the Company's ability to partner or sell part or all of its products.

Furthermore, when the research and development programs partially financed by the Company enter in "exploitation phase", the Company has to start reimbursing the funding received. The Company may not be able to reimburse such funding under the terms of the agreements or such reimbursement may jeopardize the funding of its clinical and scientific activities.

The Company relies and will continue to rely on collaborative partners regarding the development of its research programmes and product candidates.

The Company is and expects to continue to be dependent on collaborations with partners relating to the development and commercialisation of its existing and future research programmes and product

candidates. The Company had, has and will continue to have discussions on potential partnering opportunities with various pharmaceutical and medical device companies. If the Company fails to enter into or maintain collaborative agreements on reasonable terms or at all, the Company's ability to develop its existing or future research programmes and product candidates could be delayed, the commercial potential of its products could change and its costs of development and commercialisation could increase.

The Company's dependence on collaborative partners subjects it to a number of risks, including, but not limited to, the following:

- the Company may not be able to control the amount or timing of resources that collaborative partners devote to the Company's research programs and product candidates;
- the Company may be required to relinquish significant rights, including intellectual property, marketing and distribution rights;
- the Company relies on the information and data received from third parties regarding its research programs and product candidates and will not have control of the process conducted by the third party in gathering and composing such data and information. The Company may not have formal or appropriate guarantees from its contract parties with respect to the quality and the completeness of such data;
- a collaborative partner may develop a competing product either by itself or in collaboration with others, including one or more of the Company's competitors;
- the Company's collaborative partners' willingness or ability to complete their obligations under the Company's collaboration arrangements may be adversely affected by business combinations or significant changes in a collaborative partner’s business strategy; and/or
- the Company may experience delays in, or increases in the costs of, the development of the Company's research programs and product candidates due to the termination or expiration of collaborative research and development arrangements.

On November 27, 2018, Ono Pharmaceuticals Co., Ltd. notified the Company of its decision to terminate with immediate effect the License and Collaboration Agreement dated July 11, 2016 between Ono Pharmaceuticals and the Company.

The Company relies on third parties to conduct, supervise and monitor its clinical trials. If these third parties do not successfully carry out their contractual duties or meet expected deadlines, the Company may not be able to obtain regulatory approval for or commercialize its drug product candidates and its business could be substantially harmed.

The Company relies on clinical research organizations, or CROs, and clinical trial sites to ensure its clinical trials are conducted properly and on time. While the Company will have agreements governing their activities, the Company will have limited influence over their actual performance. The Company will control only certain aspects of its CROs’ activities. Nevertheless, the Company will be responsible for ensuring that each of its clinical trials is conducted in accordance with the applicable protocol, legal, regulatory and scientific standards, and its reliance on the CROs does not relieve the Company of its regulatory responsibilities.

The Company and its CROs are required to comply with the FDA’s GCPs for conducting, recording and reporting the results of clinical trials to assure that the data and reported results are credible and accurate and that the rights, integrity and confidentiality of clinical trial participants are protected. The FDA, the Competent Authorities of the Member States of the EEA, and comparable foreign regulatory authorities, enforce these GCPs through periodic inspections of trial sponsors, principal investigators and clinical

trial sites. If the Company or its CROs fail to comply with applicable GCPs, the clinical data generated in its future clinical trials may be deemed unreliable and the FDA, the EMA, or other foreign regulatory authorities may require the Company to perform additional clinical trials before approving any marketing applications. Upon inspection, the FDA may determine that its clinical trials did not comply with GCPs. In addition, its future clinical trials will require a sufficient number of test subjects to evaluate the safety and effectiveness of its drug product candidates. Accordingly, if its CROs fail to comply with these regulations or fail to recruit a sufficient number of patients, the Company may be required to repeat such clinical trials, which would delay the regulatory approval process.

Its CROs are not the Company's employees, and the Company is therefore unable to directly monitor whether or not they devote sufficient time and resources to its clinical and pre-clinical programs. These CROs may also have relationships with other commercial entities, including its competitors, for whom they may also be conducting clinical trials or other product development activities that could harm the Company's competitive position. If its CROs do not successfully carry out their contractual duties or obligations, fail to meet expected deadlines, or if the quality or accuracy of the clinical data they obtain is compromised due to the failure to adhere to the Company's clinical protocols or regulatory requirements, or for any other reasons, the Company's clinical trials may be extended, delayed or terminated, and the Company may not be able to obtain regulatory approval for, or successfully commercialize, its drug product candidates. If any such event were to occur, the Company's financial results and the commercial prospects for its drug product candidates would be harmed, its costs could increase, and its ability to generate revenues could be delayed.

If any of the Company's relationships with these third-party CROs terminate, the Company may not be able to enter into arrangements with alternative CROs or to do so on commercially reasonable terms. Further, switching or adding additional CROs involves additional costs and requires management time and focus. In addition, there is a natural transition period when a new CRO commences work. As a result, delays occur, which could materially impact its ability to meet its desired clinical development timelines. Though the Company carefully manages its relationships with its CROs, there can be no assurance that the Company will not encounter challenges or delays in the future or that these delays or challenges will not have a material adverse impact on its business, financial condition and prospects.

Cell-based therapies rely on the availability of specialty raw materials, which may not be available to the Company on acceptable terms or at all.

Engineered-cell therapies require many specialty raw materials, some of which are manufactured by small companies with limited resources and experience to support a commercial product. The suppliers may be ill-equipped to support the Company's needs, especially in non-routine circumstances like an FDA inspection or medical crisis, such as widespread contamination. The Company also does not have contracts with many of these suppliers, and may not be able to contract with them on acceptable terms or at all. Accordingly, the Company may experience delays in receiving key raw materials to support clinical or commercial manufacturing.

In addition, some raw materials are currently available from a single supplier, or a small number of suppliers. The Company cannot be sure that these suppliers will remain in business, or that they will not be purchased by one of its competitors or another Company that is not interested in continuing to produce these materials for its intended purpose.

1.4 Risk related to the Company's intellectual property

The Company's patents and other intellectual property rights portfolio is relatively young and may not adequately protect its research programmes and product candidates, which may impede the Company's ability to compete effectively.

The Company's success will depend in part on the ability of the Company to obtain, maintain and enforce its patents and other intellectual property rights. The Company's research programmes and product candidates are covered by several patent application families, which are either licensed to the Company or owned by the Company. Out of the numerous patent applications filed by the Company, six national patents have been granted in Belgium and fifteen national patents have been granted in the US, of which nine relate to the field of immune-oncology. The Company cannot guarantee that it will be in a position in the future to develop new patentable inventions or that the Company or its licensors will be able to obtain or maintain these patent rights against patent offices and other third-party challenges to their validity, scope and/or enforceability. The Company cannot guarantee that it is or has been the first to conceive an invention and to file a patent or a patent application, notably given the fact that patent applications are not published in most countries before an 18-months period from the date of the filing. Moreover, the Company may have no or limited control over the effectiveness of its licensors in preventing the misappropriation of their patents and intellectual property. Because patent law in the biopharmaceutical industry is highly uncertain, there can be no assurance that the technologies used in the Company's research programmes and product candidates are patentable, that patents will be granted to the Company or its licensors under pending or future applications, or that patents will be of sufficient breadth to provide adequate and commercially meaningful protection against competitors with similar technologies or products, or that patents granted to the Company or its licensors will not be successfully challenged, circumvented, invalidated or rendered unenforceable by third parties, hence enabling competitors to circumvent or use them and depriving the Company from the protection it may expect against competitors. If the Company or its licensors do not obtain patents in respect of their technologies or if the patents of the Company or its licensors are invalidated (for example, as a result of the discovery of prior art), third parties may use the technologies without payment to the Company. A third party's ability to use unpatented technologies is enhanced by the fact that the published patent application contains a detailed description of the relevant technology.

The Company cannot guarantee that third parties, contract parties or employees will not claim ownership rights over the patents or other intellectual property rights owned or held by the Company.

The Company also relies on proprietary know-how to protect its research programmes and product candidates and Cardiopoiesis platform. Know-how is difficult to maintain and protect. The Company uses reasonable efforts to maintain its know-how, but it cannot assure that its partners, employees, consultants, advisors or other third parties will not wilfully or unintentionally disclose proprietary information to competitors. Furthermore, the Company's competitors may independently develop equivalent knowledge and know-how, which could diminish or eliminate the Company's competitive advantage.

The enforcement of patents, know-how and other intellectual property is costly, time consuming and highly uncertain. The Company cannot guarantee that it will be successful in preventing the misappropriation of its patented inventions, know-how and other intellectual property rights and those of its licensors, and failure to do so could significantly impair the ability of the Company to effectively compete.

As far as the Company is aware, its intellectual property has not been challenged otherwise than by patent offices in the normal course of examination of its patent applications or misappropriated

The Company may infringe on the patents or intellectual property rights of others and may face patent litigation, which may be costly and time consuming.

The Company's success will depend in part on its ability to operate without infringing on or misappropriating the intellectual property rights of others. The Company cannot guarantee that its activities, or those of its licensors, will not infringe on the patents or other intellectual property rights owned by others. The Company may expend significant time and effort and may incur substantial costs in litigation if it is required to defend against patent or other intellectual property right suits brought against the Company or its licensors regardless of whether the claims have any merit. Additionally, the Company cannot predict whether it or its licensors will be successful in any litigation. If the Company or its licensors are found to infringe on the patents or other intellectual property rights of others, it may be subject to substantial claims for damages, which could materially impact the Company's cash flow and financial position.

The Company may also be required to cease development, use or sale of the relevant research programme, product candidate or process or it may be required to obtain a licence on the disputed rights, which may not be available on commercially reasonable terms, if at all.

There can be no assurance that the Company is even aware of third party right that may be alleged to be relevant to any particular product candidate, method, process or technology will uncover all relevant third party rights relating to such product, method, process or technology.

The Company may spend significant time and effort and may incur substantial costs if required to defend against any infringement claims or to assert its intellectual property rights against third parties. The risk of such a procedure by a third party may increase in view of the Company making public announcement regarding one or more of its research programmes and product candidates. The Company may not be successful in defending its rights against such procedures or claims and may incur as a consequence thereof significant losses, costs or delays in its intended commercialisation plans as a result thereof. At the date of this Registration Document, no patent infringement claims have been made against Celyad nor by Celyad against third parties.

The Company depends on intellectual property licensed from third parties and termination of any of these licenses could result in the loss of significant rights, which would harm its business.

The Company is dependent on patents, know-how, and proprietary technology, both its own and licensed from others. The Company licenses technology from the Trustees of Dartmouth College, or Dartmouth College. Dartmouth College may terminate its license, if the Company fails to meet a milestone within the specified time period, unless it pays the corresponding milestone payment. Dartmouth College may terminate either the license in the event the Company defaults or breaches any of the provisions of the applicable license, subject to 30 days' prior notice and opportunity to cure. In addition, the license automatically terminates in the event the Company becomes insolvent, makes an assignment for the benefit of creditors or files, or has filed against us, a petition in bankruptcy. Furthermore, Dartmouth College may terminate our license, after April 30, 2024, if we fail to meet the specified minimum net sales obligations for any year, unless we pay to Dartmouth College the royalties we would otherwise be obligated to pay had we met such minimum net sales obligation. Any termination of this license or any of our other licenses could result in the loss of significant rights and could harm its ability to commercialize its drug product candidates. Disputes may also arise between the Company and its licensors regarding intellectual property subject to a license agreement, including those relating to:

- the scope of rights granted under the license agreement and other interpretation-related issues;
- whether and the extent to which its technology and processes infringe on intellectual property of the licensor that is not subject to the license agreement;

- its right to sublicense patent and other rights to third parties under collaborative development relationships;
- the amount and timing of milestone and royalty payments;
- whether the Company is complying with its diligence obligations with respect to the use of the licensed technology in relation to its development and commercialization of its drug product candidates; and
- the allocation of ownership of inventions and know-how resulting from the joint creation or use of intellectual property by the Company and its partners and by its licensors.

If disputes over intellectual property that the Company has licensed prevent or impair its ability to maintain its current licensing arrangements on acceptable terms, the Company may be unable to successfully develop and commercialize the affected drug product candidates. The Company is generally also subject to all of the same risks with respect to protection of intellectual property that the Company licenses as it is for intellectual property that the Company owns, which are described below. If the Company or its licensors fail to adequately protect this intellectual property, the Company's ability to commercialize its products could suffer.

The licenses of the Company may be terminated if it is unable to meet the payment obligations under the agreements (notably if the Company is unable to obtain additional financing – see section 1.1 above).

The Company could be unsuccessful in obtaining or maintaining adequate patent protection for one or more of its drug product candidates.

The patent application process is expensive and time-consuming, and the Company and its current or future licensors and licensees may not be able to apply for or prosecute patents on certain aspects of its drug product candidates or deliver technologies at a reasonable cost, in a timely fashion, or at all. It is also possible that the Company or its current licensors, or any future licensors or licensees, will fail to identify patentable aspects of inventions made in the course of development and commercialization activities before it is too late to obtain patent protection on them. Therefore, its patents and applications may not be prosecuted and enforced in a manner consistent with the best interests of its business. It is possible that defects of form in the preparation or filing of its patents or patent applications may exist, or may arise in the future, such as with respect to proper priority claims, inventorship, claim scope or patent term adjustments. Under its existing license agreements with the Mayo Foundation for Medical Education and Research and the Trustees of Dartmouth College, the Company has the right, but not the obligation, to enforce its licensed patents. If its current licensors, or any future licensors or licensees, are not fully cooperative or disagree with the Company as to the prosecution, maintenance or enforcement of any patent rights, such patent rights could be compromised and the Company might not be able to prevent third parties from making, using, and selling competing products. If there are material defects in the form or preparation of its patents or patent applications, such patents or applications may be invalid and unenforceable. Moreover, its competitors may independently develop equivalent knowledge, methods, and know-how. Any of these outcomes could impair its ability to prevent competition from third parties, which may have an adverse impact on its business, financial condition and operating results.

Celyad currently has issued patents and patent applications directed to its drug product candidates and medical devices, and the Company anticipates that it will file additional patent applications in several jurisdictions, including several European Union countries and the United States, as appropriate.

However, the Company cannot predict:

- if and when any patents will issue from patent applications;
- the degree and range of protection any issued patents will afford the Company against competitors, including whether third parties will find ways to invalidate or otherwise circumvent its patents;
- whether others will apply for or obtain patents claiming aspects similar to those covered by its patents and patent applications; or
- whether the Company will need to initiate litigation or administrative proceedings to defend its patent rights, which may be costly whether the Company win or lose.

Celyad cannot be certain, however, that the claims in its pending patent applications will be considered patentable by patent offices, or that the claims in any of its issued patents will be considered valid and enforceable by local courts.

The strength of patents in the biotechnology and pharmaceutical field can be uncertain, and evaluating the scope of such patents involves complex legal and scientific analyses. The patent applications that the Company owns or in-licenses may fail to result in issued patents with claims that cover its drug product candidates or uses thereof in the European Union, in the United States or in other jurisdictions. Even if the patents do successfully issue, third parties may challenge the validity, enforceability, or scope thereof, which may result in such patents being narrowed, invalidated, or held unenforceable. Furthermore, even if they are unchallenged, its patents and patent applications may not adequately protect its intellectual property or prevent others from designing their products to avoid being covered by its claims. If the breadth or strength of protection provided by the patent applications the Company holds with respect to its drug product candidates is threatened, this could dissuade companies from collaborating with the Company to develop, and could threaten its ability to commercialize, its drug product candidates. Further, because patent applications in most countries are confidential for a period of time after filing, the Company cannot be certain that it was the first to file any patent application related to its drug product candidates.

Patents have a limited lifespan. Various extensions may be available; however the life of a patent, and the protection it affords, is limited. Further, the extensive period of time between patent filing and regulatory approval for a drug product candidate limits the time during which the Company can market a drug product candidate under patent protection, which may particularly affect the profitability of its early-stage drug product candidates. If the Company encounters delays in its clinical trials, the period of time during which the Company could market its drug product candidates under patent protection would be reduced. Without patent protection for its drug product candidates, the Company may be open to competition from biosimilar versions of its drug product candidates.

The Company may not be able to protect its intellectual property rights throughout the world.

Filing, prosecuting and defending patents on drug product candidates in all countries throughout the world would be prohibitively expensive., In addition, the laws of some foreign countries do not protect intellectual property rights to the same extent as laws in the European Union or the United States. Consequently, the Company may not be able to prevent third parties from practicing its inventions in all countries, or from selling or importing products made using its inventions in and into other jurisdictions. Competitors may use its technologies in jurisdictions where the Company has not obtained patent protection to develop their own products and further, may export otherwise infringing products to territories where the Company has patent protection but enforcement is not as strong. These products

may compete with its products and its patents or other intellectual property rights may not be effective or sufficient to prevent them from competing.

Many companies have encountered significant problems in protecting and defending intellectual property rights in a number of jurisdictions. The legal systems of certain countries, particularly certain developing countries, do not favour the enforcement of patents, trade secrets and other intellectual property protection, particularly those relating to biotechnology products, which could make it difficult for the Company to stop the infringement of its patents or marketing of competing products in violation of its proprietary rights generally. Proceedings to enforce its patent rights in some jurisdictions could result in substantial costs and divert its efforts and attention from other aspects of its business, could put its patents at risk of being invalidated or interpreted narrowly and its patent applications at risk of not issuing and could provoke third parties to assert claims against the Company. We may not prevail in any lawsuits that the Company initiates and the damages or other remedies awarded, if any, may not be commercially meaningful. Accordingly, its efforts to enforce its intellectual property rights around the world may be inadequate to obtain a significant commercial advantage from the intellectual property that the Company develops or licenses.

The Company may be involved in lawsuits to protect or enforce its patents or the patents of its licensors, which could be expensive, time-consuming, and unsuccessful.

Competitors may infringe its patents or the patents of its licensors. To cease such infringement or unauthorized use, the Company may be required to file patent infringement claims, which can be expensive and time-consuming. In addition, in an infringement proceeding or a declaratory judgment action against the Company, a court may decide that one or more of its patents is not valid or is unenforceable, or may refuse to stop the other party from using the technology at issue on the grounds that its patents do not cover the technology in question. An adverse result in any litigation or defense proceeding could put one or more of its patents at risk of being invalidated, held unenforceable, interpreted narrowly, or amended such that they do not cover its drug product candidates. Such results could also put its pending patent applications at risk of not issuing. Defense of these claims, regardless of their merit, would involve substantial litigation expense and would be a substantial diversion of employee resources from its business. Interference or derivation proceedings provoked by third parties may be necessary to determine the priority of inventions with respect to, or the correct inventorship of, its patents or patent applications or those of its licensors. An unfavourable outcome could result in a loss of its current patent rights and could require the Company to cease using the related technology or to attempt to license rights to it from the prevailing party. Its business could be harmed if the prevailing party does not offer the Company a license on commercially reasonable terms. Litigation, interference, or derivation proceedings may result in a decision adverse to its interests and, even if the Company is successful, may result in substantial costs and distract its management and other employees.

Furthermore, because of the substantial amount of discovery required in some jurisdictions in connection with intellectual property litigation, there is a risk that some of its confidential information could be compromised by disclosure during this type of litigation. In addition, there could be public announcements of the results of hearings, motions or other interim proceedings or developments. If securities analysts or investors perceive these results to be negative, it could have a substantial adverse effect on the price of its ordinary shares.

Issued patents covering its drug product candidates could be found invalid or unenforceable if challenged in court or before relevant authority.

If the Company or one of its licensing partners initiate legal proceedings against a third party to enforce a patent covering one of its drug product candidates, the defendant could counterclaim that the patent covering its drug product candidate is invalid or unenforceable. Third parties may also raise similar

claims before administrative bodies, even outside the context of litigation. Such mechanisms include opposition or derivation proceedings. Such proceedings could result in revocation or amendment to its patents in such a way that they no longer cover and protect its drug product candidates. The outcome following legal assertions of invalidity and unenforceability is unpredictable. With respect to the validity of its patents, for example, the Company cannot be certain that there is no invalidating prior art of which the Company, its patent counsel, and the patent examiner were unaware during prosecution. If a defendant were to prevail on a legal assertion of invalidity and/or unenforceability, the Company would lose at least part, and perhaps all, of the patent protection on its drug product candidates. Such a loss of patent protection could have a material adverse impact on its business.

Celyad may be subject to claims that its employees, consultants, or independent contractors have wrongfully used or disclosed confidential information of third parties.

The Company has received confidential and proprietary information from third parties. In addition, the Company employs individuals who were previously employed at other biotechnology or pharmaceutical companies. The Company may be subject to claims that the Company or its employees, consultants, or independent contractors have inadvertently or otherwise used or disclosed confidential information of these third parties or its employees' former employers. Litigation may be necessary to defend against these claims. Even if the Company is successful in defending against these claims, litigation could result in substantial cost and be a distraction to its management and employees.

1.5 Risks related to the Company's organization, structure and operation

Maintenance of high standards of manufacturing in accordance with Good Manufacturing Practices and other manufacturing regulations.

Celyad and key third-party suppliers on which it relies currently or in the future must continuously adhere to (current) Good Manufacturing Practices and corresponding manufacturing regulations of Competent Authorities. In complying with these regulations, the Company and its third-party suppliers must expend significant time, money and effort in the areas of design and development, testing, production, record-keeping and quality control to assure that the products meet applicable specifications and other regulatory requirements. The failure to comply with these requirements could result in an enforcement action against the Company, including the seizure of products and shutting down of production. Any of these third-party suppliers and the Company also may be subject to audits by the Competent Authorities. If any of the Company's third-party suppliers or the Company itself fails to comply with (current) Good Manufacturing Practices or other applicable manufacturing regulations, the Company's ability to develop and commercialise the products could suffer significant interruptions.

The Company relies on a single manufacturing facility.

The Company faces risks inherent in operating a single manufacturing facility, since any disruption, such as a fire, natural hazards or vandalism could significantly interrupt the Company's manufacturing capability. The Company currently does not have alternative production plans in place or disaster-recovery facilities available. In case of a disruption, the Company will have to establish alternative manufacturing sources. This would require substantial capital on the part of the Company, which it may not be able to obtain on commercially acceptable terms or at all. Additionally, the Company would likely experience months or years of manufacturing delays as it builds or locates replacement facilities and seek and obtain necessary regulatory approvals. If this occurs, the Company will be unable to satisfy manufacturing needs on a timely basis, if at all. Also, operating any new facilities may be more expensive than operating the Company's current facility. Further, business interruption insurance may

not adequately compensate the Company for any losses that may occur and the Company would have to bear the additional cost of any disruption. For these reasons, a significant disruptive event of the manufacturing facility could have drastic consequences, including placing the financial stability of the Company at risk.

The Company will need increased manufacturing capacity.

The Company may not be able to expand the manufacturing capacity within the anticipated time frame or budget or may not be able to obtain the requisite regulatory approvals for the increase in manufacturing capacity on a timely basis, or at all. If the Company cannot obtain necessary approvals for this contemplated expansion in a timely manner, its ability to meet demand for its products would be adversely affected. The Company may have difficulties in finding suitable locations or commercially acceptable terms for the leasing of such facilities. The Company may also have difficulties in finding a commercial partner for the construction of those facilities and/or partners for investing in the capital expenses related to the manufacturing plants. The Company will need to obtain GMP certification of those plants for commercial products. Obtaining those certificates may be delayed, or may not be granted.

The Company is highly dependent on its key personnel, and if the Company is not successful in attracting, motivating and retaining highly qualified personnel, the Company may not be able to successfully implement its business strategy.

Its ability to compete in the highly competitive biotechnology and pharmaceutical industries depends upon its ability to attract, motivate and retain highly qualified managerial, scientific and medical personnel. The Company is highly dependent on members of its executive committee, particularly its chief executive officer, Christian Homsy, and its scientific and medical personnel. The loss of the services of any members of its executive committee, other key employees, and other scientific and medical advisors, and its inability to find suitable replacements, could result in delays in product development and harm its business.

Competition for skilled personnel in the biotechnology and pharmaceutical industries is intense and the turnover rate can be high, which may limit the Company's ability to hire and retain highly qualified personnel on acceptable terms or at all.

To induce valuable employees to remain within the Company, in addition to salary and cash incentives, the Company has provided warrants that vest over time. The value to employees of these equity grants that vest over time may be significantly affected by movements in its share price that are beyond its control, and may at any time be insufficient to counteract more lucrative offers from other companies. The Company does not maintain "key man" insurance policies on the lives of all of these individuals or the lives of any of its other employees.

Risks from the improper conduct of employees, agents, contractors, consultants or collaborators could adversely affect the reputation and business of the Company, prospects, operating results, and financial condition.

The Company cannot ensure that its compliance controls, policies, and procedures will in every instance protect it from acts committed by its employees, agents, contractors, or collaborators that would violate the laws or regulations of the jurisdictions in which it operates, including, without limitation, healthcare, employment, foreign corrupt practices, environmental, competition, and patient privacy and other privacy laws and regulations. Such improper actions could subject the

Company to civil or criminal investigations, and monetary and injunctive penalties, and could adversely impact its ability to conduct business, operating results, and reputation. In particular, its business activities may be subject to anti-bribery or anti-corruption laws, regulations or rules of countries in which it operates, including the Foreign Corrupt Practices Act, or FCPA, or the U.K. Bribery Act.

Violations of these laws and regulations could result in fines, criminal sanctions against the Company, its officers, or its employees, the closing down of its facilities, requirements to obtain export licenses, cessation of business activities in sanctioned countries, implementation of compliance programs, and prohibitions on the conduct of its business. Any such violations could include prohibitions on its ability to offer products in one or more countries and could materially damage its reputation, its brand, its international expansion efforts, its ability to attract and retain employees, and its business, prospects, operating results, and financial condition.

The Company has limited experience in sales, marketing and distribution.

Given its stage in development, the Company has never marketed a product and has therefore limited experience in the fields of sales, marketing and distribution of therapies. As a consequence, the Company will have to acquire marketing skills and develop its own sales and marketing infrastructure and would need to incur additional expenses, mobilize management resources, implement new skills and take the time necessary to set up the appropriate organization and structure to market the relevant product(s), in accordance with applicable laws.

While several managers of the Company have commercialized and launched high technology medical products there can be no assurance that the existing limited experience would be sufficient to effectively commercialize any or all of the Company's product candidates. The Company may not be able to attract qualified sales and marketing personnel on acceptable terms in the future and therefore may experience constraints that will impede the achievement of its commercial objectives. Such events could have a material adverse effect on the Company's business, prospects, financial situation, earnings and growth.

The Company will need to grow the size and capabilities of its organization, and the Company may experience difficulties in managing this growth.

As of 31 December 2018, the Company had 90 employees and 7 senior managers under management services agreements, most of whom are full-time. As the Company's drug product candidates move into later stage clinical development and towards commercialization, the Company must add a significant number of additional managerial, operational, sales, marketing, financial, and other personnel. Future growth will impose significant added responsibilities on members of management, including:

- identifying, recruiting, integrating, maintaining, and motivating additional employees;
- managing the Company's internal development efforts effectively, including the clinical and FDA review process for its drug product candidates, while complying with its contractual obligations to contractors and other third parties; and
- improving its operational, financial and management controls, reporting systems, and procedures.

The Company's future financial performance and its ability to commercialize its drug product candidates will depend, in part, on its ability to effectively manage any future growth, and its management may also have to divert a disproportionate amount of its attention away from day-to-day activities in order to devote a substantial amount of time to managing these growth activities.

If the Company is not able to effectively expand its organization by hiring new employees and expanding its groups of consultants and contractors, the Company may not be able to successfully implement the tasks necessary to further develop and commercialize its drug product candidates and, accordingly, may not achieve its research, development, and commercialization goals.

If the Company engages in future acquisitions or strategic partnerships, this may increase its capital requirements, dilute its shareholders, cause it to incur debt or assume contingent liabilities, and subject it to other risks.

The Company may evaluate various acquisitions and strategic partnerships, including licensing or acquiring complementary products, intellectual property rights, technologies, or businesses. Any potential acquisition or strategic partnership may entail numerous risks, including:

- increased operating expenses and cash requirements;
- the assumption of additional indebtedness or contingent liabilities;
- the issuance of its equity securities;
- assimilation of operations, intellectual property and products of an acquired Company, including difficulties associated with integrating new personnel;
- the diversion of its management's attention from its existing product programs and initiatives in pursuing such a strategic merger or acquisition;
- retention of key employees, the loss of key personnel, and uncertainties in its ability to maintain key business relationships;
- risks and uncertainties associated with the other party to such a transaction, including the prospects of that party and their existing products or drug product candidates and regulatory approvals; and
- its inability to generate revenue from acquired technology and/or products sufficient to meet its objectives in undertaking the acquisition or even to offset the associated acquisition and maintenance costs.

In addition, if the Company undertakes acquisitions, the Company may issue dilutive securities, assume or incur debt obligations, incur large one-time expenses and acquire intangible assets that could result in significant future amortisation expense. Moreover, the Company may not be able to locate suitable acquisition opportunities and this inability could impair its ability to grow or obtain access to technology or products that may be important to the development of its business.

The Company is subject to certain covenants as a result of certain non-dilutive financial support received to date.

The Company has received some non-dilutive financial supports from the Walloon Region to support various research programs. The support has been granted in the form of recoverable cash advances, or RCAs, and subsidies.

In the event the Company decides to exploit any discoveries or products from the research funded by under an RCA, the relevant RCA becomes refundable, otherwise the RCA is not refundable. The Company owns the intellectual property rights which result from the research programs partially funded by the Region, unless it decides not to exploit, or cease to exploit, the results of the research in which case the results and intellectual property rights are transferred to the Region. Subject to certain exceptions, however, the Company cannot grant to third parties, by way of license or otherwise, any right to use the results without the prior consent of the Region. The Company also needs the

consent of the Region to transfer an intellectual property right resulting from the research programs or a transfer or license of a prototype or installation. Obtaining such consent from the Region could give rise to a review of the applicable financial terms. The RCAs also contain provisions prohibiting the Company from conducting research for any other person which would fall within the scope of a research program of one of the RCAs. Most RCAs provide that this prohibition is applicable during the research phase and the decision phase but a number of RCAs extend it beyond these phases.

Subsidies received from the Region are dedicated to funding research programs and patent applications and are not refundable. The Company owns the intellectual property rights which result from the research programs or with regard to a patent covered by a subsidy. Subject to certain exceptions, however, the Company cannot grant to third parties, by way of license, transfer or otherwise, any right to use the patents or research results without the prior consent of the Region. In addition, certain subsidies require that the Company exploits the patent in the countries where the protection was granted and to make an industrial use of the underlying invention. In case of bankruptcy, liquidation or dissolution, the rights to the patents covered by the patent subsidies will be assumed by the Region by operation of law unless the subsidy is reimbursed. Furthermore, the Company would lose its qualification as a small or medium-sized enterprise, the patent subsidies will terminate and no additional expenses will be covered by such patent subsidies. In 2019 the Company will be required to make exploitation decisions on its remaining outstanding RCAs which refers to the funding of THINK clinical study (cumulative funding amounting to €2,060k as of 31 December 2018). As described in the note 12.4.16, the decision to exploit the result from the research would trigger the refundability of the RCA, committing the company to reimburse : (i) 30% of the amount received through fixed instalments until financial year 2043, ranging from €35k to €70k per year ; and (ii) in case of commercialization, variable payments which are sales-dependent (amounting to 0.33% of the yearly turnover generated by the Company). The sum of these 2 components is capped at 200% of the RCA principal amount granted by the Walloon Region.

Failure to build its finance infrastructure and improve its accounting systems and controls could impair its ability to comply with the financial reporting and internal controls requirements for publicly traded companies.

As a public company, the Company is operating in an increasingly demanding regulatory environment that requires it to comply with, among things, the Sarbanes-Oxley Act of 2002, as from 31 December 2016 and related rules and regulations of the Securities and Exchange Commission's substantial disclosure requirements, accelerated reporting requirements and complex accounting rules. Company responsibilities required by the Sarbanes-Oxley Act include establishing corporate oversight and adequate internal control over financial reporting and disclosure controls and procedures. Effective internal controls are necessary for the Company to produce reliable financial reports and are important to help prevent financial fraud.

The Company has limited accounting personnel and other resources to address its internal controls and procedures. Under the Emerging Growth Company (EGC) exemption, an audit of its internal control over financial reporting has not been conducted by its independent registered public accounting firm. The EGC exemption expires after a period of 5 years from the IPO, so that such an audit will be carried out for the first time for the financial year ending 31 December 2020.

Its management may conclude that its internal control over financial reporting is not effective. Moreover, even if its management concludes that its internal control over financial reporting is effective, its independent registered public accounting firm, after conducting its own independent testing, may issue a report that is qualified if it is not satisfied with its internal controls or the level at which its controls are documented, designed, operated or reviewed, or if it interprets the relevant requirements differently from the Company. In addition, since the Company is a public company, its reporting obligations may place a significant strain on its management, operational and financial resources and systems for the foreseeable future. The Company may be unable to timely complete its evaluation, testing and any required remediation.

The Company's international operations subject it to various risks, and its failure to manage these risks could adversely affect its results of operations.

The Company faces significant operational risks as a result of doing business internationally, such as:

- fluctuations in foreign currency exchange rates;
- potentially adverse and/or unexpected tax consequences, including penalties due to the failure of tax planning or due to the challenge by tax authorities on the basis of transfer pricing and liabilities imposed from inconsistent enforcement;
- potential changes to the accounting standards, which may influence its financial situation and results;
- becoming subject to the different, complex and changing laws, regulations and court systems of multiple jurisdictions and compliance with a wide variety of foreign laws, treaties and regulations;
- reduced protection of, or significant difficulties in enforcing, intellectual property rights in certain countries;
- difficulties in attracting and retaining qualified personnel;
- restrictions imposed by local labour practices and laws on the Company's business and operations, including unilateral cancellation or modification of contracts; and
- rapid changes in global government, economic and political policies and conditions, political or civil unrest or instability, terrorism or epidemics and other similar outbreaks or events, and potential failure in confidence of the Company's suppliers or customers due to such changes or events; and tariffs, trade protection measures, import or export licensing requirements, trade embargoes and other trade barriers.

1.6 Risks Related to Ownership of Shares

If securities or industry analysts do not publish research or publish inaccurate research or unfavourable research about its business, the price of the securities and trading volume could decline.

The trading market for the securities depends in part on the research and reports that securities or industry analysts publish about the Company or its business. If no or few securities or industry analysts cover the Company, the trading price would be negatively impacted. If one or more of the analysts who covers the Company downgrades the securities or publishes incorrect or unfavourable research about its business, the price of the securities would likely decline. If one or more of these analysts ceases coverage of the Company or fails to publish reports on the Company regularly, or downgrades the securities, demand for the securities could decrease, which could cause the price of the securities or trading volume to decline.

The market price of the Shares could be negatively impacted by actual or anticipated sales of substantial numbers of Shares

Sales of a substantial number of Shares in the public markets, or the perception that such sales might occur, might cause the market price of the Shares to decline. The Issuer cannot make any prediction as to the effect of any such sales or perception of potential sales on the market price of the Shares.

Sustainability of a liquid public market

The Company cannot guarantee the extent to which a liquid market for the Shares will be sustained. In the absence of such liquid market for the Shares, the price of the Shares could be influenced. The liquidity of the market for the Shares could be affected by various causes, including the factors identified in the next risk factor (below) or by a reduced interest of investors in biotechnology sector.

The market price of the shares may fluctuate widely in response to various factors

A number of factors may significantly affect the market price of the Shares. The main factors are changes in the operating results of the Company and its competitors, announcements of technological innovations or results concerning the product candidates, changes in earnings estimates by analysts.

Other factors which could cause the price of the shares to fluctuate or could influence the reputation of the Company include, amongst other things:

- developments concerning intellectual property rights, including patents;
- public information regarding actual or potential results relating to products and product candidates under development by the Company's competitors;
- actual or potential results relating to products and product candidates under development by the Company itself;
- regulatory and medicine pricing and reimbursement developments in Europe, the United States and other jurisdictions;
- any publicity derived from any business affairs, contingencies, litigation or other proceedings, the Company's assets (including the imposition of any lien), its management, or its significant Shareholders or collaborative partners;
- Divergences in financial results from stock market expectations;
- Changes in the general conditions in the pharmaceutical industry and general economic, financial market and business conditions in the countries in which the Company operates.

In addition, stock markets have from time to time experienced extreme price and volume volatility which, in addition to general economic, financial and political conditions, could affect the market price for the Shares regardless of the operating results or financial condition of the Company.

The Company has no present intention to pay dividends on its ordinary shares in the foreseeable future and, consequently, your only opportunity to achieve a return on your investment during that time is if the price of the securities increases.

The Company has no present intention to pay dividends in the foreseeable future. Any recommendation by its board of directors to pay dividends will depend on many factors, including its financial condition (including losses carried-forward), results of operations, legal requirements and other factors. Furthermore, pursuant to Belgian law, the calculation of amounts available for distribution to shareholders, as dividends or otherwise, must be determined on the basis of its non-consolidated

statutory accounts prepared in accordance with Belgian accounting rules. In addition, in accordance with Belgian law and its Articles of Association, the Company must allocate each year an amount of at least 5% of its annual net profit under its non-consolidated statutory accounts to a legal reserve until the reserve equals 10% of its share capital. Therefore, the Company is unlikely to pay dividends or other distributions in the foreseeable future. If the price of the securities or the underlying ordinary shares declines before the Company pays dividends, investors will incur a loss on their investment, without the likelihood that this loss will be offset in part or at all by potential future cash dividends.

Takeover provisions in the national law of Belgium may make a takeover difficult.

Public takeover bids on its shares and other voting securities, such as warrants or convertible bonds, if any, are subject to the Belgian Act of 1 April 2007 on public takeover bids, as amended and implemented by the Belgian Royal Decree of 27 April 2007, or Royal Decree, and to the supervision by the Belgian Financial Services and Markets Authority, or FSMA. Public takeover bids must be made for all of its voting securities, as well as for all other securities that entitle the holders thereof to the subscription to, the acquisition of or the conversion into voting securities. Prior to making a bid, a bidder must issue and disseminate a prospectus, which must be approved by the FSMA. The bidder must also obtain approval of the relevant competition authorities, where such approval is legally required for the acquisition of the Company. The Belgian Act of 1 April 2007 provides that a mandatory bid will be required to be launched for all of its outstanding shares and securities giving access to ordinary shares if a person, as a result of its own acquisition or the acquisition by persons acting in concert with it or by persons acting on their account, directly or indirectly holds more than 30% of the voting securities in a company that has its registered office in Belgium and of which at least part of the voting securities are traded on a regulated market or on a multilateral trading facility designated by the Royal Decree. The mere fact of exceeding the relevant threshold through the acquisition of one or more shares will give rise to a mandatory bid, irrespective of whether or not the price paid in the relevant transaction exceeds the current market price.

There are several provisions of Belgian company law and certain other provisions of Belgian law, such as the obligation to disclose important shareholdings and merger control, that may apply to the Company and which may make an unfriendly tender offer, merger, change in management or other change in control, more difficult. These provisions could discourage potential takeover attempts that third parties may consider and thus deprive the shareholders of the opportunity to sell their shares at a premium (which is typically offered in the framework of a takeover bid).

The Company may be at an increased risk of securities class action litigation.

Historically, securities class action litigation has often been brought against a company following a decline in the market price of its securities. This risk is especially relevant for the Company because biotechnology and biopharmaceutical companies have experienced significant share price volatility in recent years. If the Company was to be sued, it could result in substantial costs and a diversion of management's attention and resources, which could harm its business.

Holders of the shares outside Belgium and France may not be able to exercise pre-emption rights (notice for non-Belgian resident investors).

In the event of an increase in its share capital in cash, holders of shares are generally entitled to full pre-emption rights unless these rights are excluded or limited either by a resolution of the general meeting, or by a resolution of the board of directors (if the board of directors has been authorised by the general meeting in the articles of association to increase the share capital in that manner). Certain holders of shares outside Belgium or France may not be able to exercise pre-emption rights unless local securities

laws have been complied with. In particular, U.S. holders of the shares may not be able to exercise pre-emption rights unless a registration statement under the Securities Act is declared effective with respect to the shares issuable upon exercise of such rights or an exemption from the registration requirements is available. The Company does not intend to obtain a registration statement in the U.S. or to fulfil any requirement in other jurisdictions (other than Belgium and France) in order to allow shareholders in such jurisdictions to exercise their pre-emptive rights (to the extent not excluded or limited).

Any future sale, purchase or exchange of shares may become subject to the Financial Transaction Tax

On 14 February 2013, the European Commission published a proposal (the Draft Directive) for a Directive for a common FTT in Belgium, Germany, Estonia, Greece, Spain, France, Italy, Austria, Portugal, Slovenia and Slovakia (save for Estonia, the Participating Member States). However, Estonia has since then stated that it would not participate.

Pursuant to the Draft Directive, the FTT will be payable on financial transactions provided at least one party to the financial transaction is established or deemed established in a Participating Member State and there is a financial institution established or deemed established in a Participating Member State which is a party to the financial transaction, or is acting in the name of a party to the transaction. The FTT shall, however, not apply to, among others, primary market transactions referred to in Article 5(c) of Regulation (EC) No 1287/2006, including the activity of underwriting and subsequent allocation of financial instruments in the framework of their issue.

The rates of the FTT will be fixed by each Participating Member State but for transactions involving financial instruments other than derivatives shall amount to at least 0.1% of the taxable amount. The taxable amount for such transactions shall in general be determined by reference to the consideration paid or owed in return for the transfer. The FTT will be payable by each financial institution established or deemed established in a Participating Member State which is either a party to the financial transaction, or acting in the name of a party to the transaction or where the transaction has been carried out on its account. Where the FTT due has not been paid within the applicable time limits, each party to a financial transaction, including persons other than financial institutions, shall become jointly and severally liable for the payment of the FTT due.

Investors should note, in particular, that following implementation of the Draft Directive, any future sale, purchase or exchange of shares will be subject to the FTT at a minimum rate of 0.1% provided the above mentioned prerequisites are met. The investor may be liable to pay this charge or reimburse a financial institution for the charge, and/or the charge may affect the value of the Shares. The issuance of the new Shares by the Issuer should not be subject to the FTT.

The Draft Directive is still subject to negotiation among the Participating Member States. It may therefore be altered prior to any implementation, the timing of which remains unclear. Additional EU Member States may decide to participate.

Investors should consult their own tax advisers in relation to the consequences of the FTT associated with subscribing for, purchasing, holding and disposing of the Shares.

The Company has been subject to an investigation by the Belgian Financial Services and Markets Authority

The Belgian Financial Services and Markets Authority, or the FSMA, opened an investigation against the Company on 22 April 2014. Such investigation was related to whether the Company had failed to timely disclose inside information to the market in relation to the IND clearance from the FDA for its CHART-2 Phase III heart-failure trial received on 26 December 2013 and reported on 9 January 2014. In April 2015, the Company notified the FSMA its agreement to settle its investigation by paying the proposed settlement amount of €175,000. Although such settlement does not provide for any admission of guilt on its part, the fact that the Company has entered into a settlement with the FSMA could cause investors to have a negative perception of its governance structure, which would have a material adverse effect on its business. Further, any future allegations (based on other facts and circumstances) that the Company failed to comply with applicable securities laws, whether or not true, may subject it to fines, claims and/or sanctions, which could impair its ability to offer its securities or restrict trading in its securities. The occurrence of any of the foregoing could have a material adverse effect on the trading price of its securities and its business.

2. INTRODUCTION

2.1. Registration Document

This report of Celyad SA (also referred to herein as the "Company") is a registration document in accordance with article 28 of the Belgian Act of 16 June 2006 relating to public offerings of securities and the admission for trading on a regulated market (the "**Prospectus Reguslation**"). The English version of this report has been approved by the Financial Services and Markets Authority on 11 June 2019 according to article 23 of the Prospectus Regulation. The FSMA's approval of this registration document does not imply any judgment on the situation of the Company.

Since the Company qualifies as SME, Annexe XXV of the Prospectus Regulation is used as proportionate schedule for the minimum disclosure requirements.

This registration document has not been submitted for approval to any supervisory body or governmental authority outside Belgium.

2.1.1. Language of this Report

Celyad SA has prepared its report in English. Celyad SA has also prepared a French translation of his management report (section 14 of this registration document) and is responsible for the consistency between the French and English version of this management report.

In the event of differences of interpretation between English and French versions of the management report, the English version shall prevail, without prejudice to the responsibility of the Company for inconsistencies between the different language versions of the document.

2.1.2. Availability of the Report

To obtain a copy of the registration document free of charge, please contact:

CELYAD SA

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2 rue Edouard Belin

1435 Mont-Saint-Guibert

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This report is also available from the website of Celyad (www.celyad.com).

2.1.3. Forward Looking Statements

This registration document contains forward-looking statements and estimates made by the Company with respect to the anticipated future performance of Celyad and the market in which it operates. Certain

of these statements, forecasts and estimates can be recognized by the use of words such as, without limitation, "believes", "anticipates", "expects", "intends", "plans", "seeks", "estimates", "may", "will", "predicts", "projects" and "continue" and similar expressions. They include all matters that are not historical facts. Such statements, forecasts and estimates are based on various assumptions and assessments of known and unknown risks, uncertainties and other factors, which were deemed reasonable when made but may or may not prove to be correct. Actual events are difficult to predict and may depend upon factors that are beyond the Company's control. Therefore, actual results, the financial condition, performance or achievements of Celyad, or industry results, may turn out to be materially different from any future results, performance or achievements expressed or implied by such statements, forecasts and estimates. Factors that might cause such a difference include, but are not limited to, those discussed in the section "Risk Factors". Furthermore, forward-looking statements, forecasts and estimates only speak as of the date of the publication of this registration document. Celyad SA disclaims any obligation to update any such forward-looking statement, forecast or estimates to reflect any change in the Company's expectations with regard thereto, or any change in events, conditions or circumstances on which any such statement, forecast or estimate is based, except to the extent required by Belgian law.

All statements are made and all information is provided as of the date of this registration document, except when explicitly mentioned otherwise.

2.1.4. Market and Industry Information

Information relating to markets and other industry data pertaining to the Company's business included in this registration document has been obtained from internal surveys, scientific publications, section association studies and government statistics. The Company accepts responsibility for having correctly reproduced information obtained from publications or public sources, and, in so far as the Company is aware and has been able to ascertain from information published by those industry publications or public sources, no facts have been omitted which would render the reproduced information inaccurate or misleading. However, the Company has not independently verified information obtained from industry and public sources. Certain other information in this registration document regarding the industry reflects the Company's best estimates based on information obtained from industry and public sources. Information from Company's internal estimates and surveys has not been verified by any independent sources.

2.1.5. Other Available Information

The Company has filed its deed of incorporation and must file its restated Articles of Association and all other deeds and resolutions that are to be published in the Belgian Official Gazette (*Moniteur belge*) with the clerk's office of the commercial court of Nivelles (Belgium), where such documents are available to the public. The Company is registered with the register of legal entities of Nivelles under company number 891 118 115. A copy of the most recent restated Articles of Association, the reports of the Board of Directors and the minutes of the shareholders' meeting are also available on the Company's website (www.celyad.com).

The Company prepares annual audited and consolidated financial statements. All financial statements, together with the reports of the Board of Directors and the statutory auditors are filed with the National Bank of Belgium, where they are available to the public. Furthermore, as a company with shares listed and admitted to trading on Euronext Brussels and Paris, the Company published an annual financial report (including its financials statements and the reports of the Board of Directors and the statutory auditors) and an annual announcement prior to the publication of the annual financial report, as well as a half-yearly financial report on the first six months of its financial year and quarter business updates.

Copies of these documents are available on the Company's website (www.celyad.com) and STORI, the Belgian central storage platform which is operated by the FSMA and can be accessed via its website (www.fsma.be).

The Company must also disclose price sensitive information and certain other information relating to the public. In accordance with the Belgian Royal Decree of 14 November 2007 relating to the obligations of issuers of financial instruments admitted to trading on a Belgian regulated market such information and documentation will be made available through the Company's website, press release and the communication channels of Euronext Brussels.

3. PERSONS RESPONSIBLE FOR THE CONTENT OF THIS REGISTRATION DOCUMENT

The Company, represented by its board of directors, assumes responsibility for the information contained in this registration document. To the best of the knowledge of the Company and its directors (having taken all reasonable care to ensure that such is the case), the information contained in this registration document is in accordance with the facts, is not misleading and is true, accurate and complete, and does not omit anything likely to affect the import of such information.

At the date of this registration document, the Board of Directors is composed of the following 7 members:

Name	**Position**
Michel Lussier	Chairman
LSS Consulting SPRL, rep. Christian Homsy	Director (non-executive)
Serge Goblet	Director (non-executive)
Chris Buyse	Independent Director
Rudy Dekeyser	Independent Director
Hilde Windels	Independent Director
Margo Roberts	Independent Director

Any information from third parties identified in this registration document as such, has been accurately reproduced and as far as the Company is aware and is able to ascertain from the information published by a third party, does not omit any facts which would render the reproduced information inaccurate or misleading.

The contents of this registration document should not be construed as providing legal, business, accounting or tax advice. Each prospective investor should consult its own legal, business, accounting and tax advisers prior to making a decision to invest in the Shares.

4. STATUTORY AUDITOR

BDO Reviseurs d'Entreprises scrl, organised and existing under the laws of Belgium, with registered office at The Corporate Village, Da Vincilaan 9, Box E.6, Elsinore Building, 1935 Zaventem, Belgium, represented by Bert Kegels, has been appointed as statutory auditor of the Company on 5 May 2017 for a term of three years. Bert Kegels is a member of the Belgian Institute of Certified Auditors ("Institut des Réviseurs d'Entreprises").

The statutory financial statements as per 31 December 2018, 31 December 2017 and 31 December 2016 and the years then ended were prepared in accordance with Belgian GAAP. The 2018 and 2017 statutory financial statements in accordance with Belgian GAAP have been audited by BDO Reviseurs d'Entreprises scrl, represented by Bert Kegels, who delivered unqualified opinions. The 2016 statutory financial statements in accordance with Belgian GAAP have been audited by PricewaterhouseCoopers Reviseurs d'Entreprises scrl, represented by Patrick Mortroux, who delivered unqualified opinion.

The consolidated financial statements as of 31 December 2018, 31 December 2017 and 31 December 2016 and the years then ended have also been prepared in accordance with IFRS. The 2018 and 2017 consolidated annual financial statements in accordance with IFRS have been audited by BDO Reviseurs d'Entreprises scrl, represented by Bert Kegels, who delivered unqualified opinions. The 2016 consolidated financial statements in accordance with IFRS have been audited by PricewaterhouseCoopers Reviseurs d'Entreprises scrl, represented by Patrick Mortroux, who delivered unqualified opinion.

On 5 May 2017, the annual shareholder's meeting decided not to renew the independent public accounting firm mandate of PricewaterhouseCoopers SCCRL with registered office at 1932 Sint-Stevens-Woluwe, Woluwedal 18, represented by M. Patrick Mortoux. At the time of shareholders decision, PricewaterhouseCoopers had been its auditor for three years (appointed by decision of the shareholders' meeting dated 5 May 2014). PricewaterhouseCoopers's reports (under International Standards on Auditing) on its consolidated financial statements for the years ended 31 December 2016 and 2015 did not contain an adverse opinion or disclaimer of opinion and was not qualified or modified as to uncertainty, audit scope or accounting principles.

5. SELECTED FINANCIAL INFORMATION

5.1. Analysis of the consolidated income statement

The table below sets forth the Group's consolidated income statement, ending up with a €37.4 million net loss for the year ended 31 December 2018, and comparative information for the year 2017.

(€'000)	For the year ended 31 December,	
	2018	**2017**
Revenue	**3,115**	**3,540**
Cost of sales	-	(515)
Gross profit	**3,115**	**3,025**
Research and Development expenses	(23,577)	(22,908)
General & Administrative expenses	(10,387)	(9,310)
Other income	1,078	2,630
Other expenses	(8,399)	(41)
Adjusted Operating Loss [1]	**(38,170)**	**(26,604)**
Amendment of Celdara Medical and Dartmouth College agreements	-	(24,341)
Write-off C-Cure and Corquest assets and derecognition of related liabilities	-	(1,932)
Operating Loss	**(38,170)**	**(52,876)**
Financial income	804	933
Financial expenses	(62)	(4,454)
Loss before taxes	**(37,427)**	**(56,396)**
Income taxes	0	1
Loss for the year	**(37,427)**	**(56,395)**
Basic and diluted loss per share (in €)	(3.36)	(5.86)

Total revenue amounts to €3.1 million for the year 2018. Revenue reported refer to:

i) the exclusive license agreement signed by the Group with Mesoblast Ltd., an Australian biotechnology company, focused on the development and commercialization of Celyad's intellectual property rights related to C-Cath$_{EZ}$, an intra-myocardial injection catheter. Celyad has granted to Mesoblast an exclusive license, with rights to sublicense to Celyad's intellectual property to develop, use, manufacture, have manufactured and commercialise C-CathEZ worldwide in "*all applications and uses in connection with or delivery or support of any product comprised of allogeneic cells, which product is researched, developed or commercialised for the treatment, diagnosis or prophylaxis of any and all heart diseases or conditions*". Celyad keeps all rights to commercialize or license C-CathEZ outside of that definition of the license. This agreement involved a transaction amount split between upfront and contingent milestone payments. A total amount of €2.4 million qualified for

[1] 'Adjusted Operating Loss' is a sub-total, within Operating Profit or Loss determined in accordance with IFRS, which excludes non-recurring items of significant magnitude. These non-recurring items are presented as separate lines below the Adjusted Operating Loss sub-total.

top-line revenue recognition at 31 December 2018, out of which, €0.8 million has been settled at year-end.

ii) the non-clinical supply agreement concluded with ONO Pharmaceutical Co., Ltd. with respect to the product candidate development of CYAD-101 for their licensed territories. The agreement with ONO was time and material driven, involved performing cell production and animal experiments requested by ONO, and has been completed at year-end, generating a revenue of €0.7 million in 2018. As ONO decided to terminate the license and collaboration agreement for strategic and business reasons, there was no milestone payment received from ONO during the year 2018 with regards to advancement of CYAD-101 into the clinic. As a result, Celyad has recovered worldwide development and commercialization rights to CYAD-101.

For the previous year, total revenue amounted to €3.5 million and corresponded to the non-refundable upfront payment received from Novartis, within the framework of the non-exclusive license agreement signed in May 2017. This upfront payment has been fully recognized upon receipt as there were no performance obligations nor subsequent deliverables associated to the payment. Cost of sales reported for the prior year 2017 corresponded to the technology inventor (Darthmouth College) sublicense fee on the upfront payment received from Novartis.

The Research and Development expenses include pre-clinical, manufacturing, clinical, quality, intellectual property and regulatory expenses and other research and development expenses, which are aggregated and presented as a single line in our consolidated financial statements.

Bottom-line, the R&D expenses show a year-over-year increase of €0.7 million. The increase reflects the organic growth of the Company's operations, for both pre-clinical and clinical activities.

The key projects driving the research and development expenses in 2018 included:

- the clinical studies conducted on company's most advanced CAR-T product candidates, CYAD-01 and CYAD-101 (THINK, SHRINK, DEPLETHINK, alloSHRINK) ;
- the pre-clinical studies conducted on on company's CAR-T product candidates in both autologous and allogeneic settings (CYAD-02, CYAD-03 and the development of our allogeneic platform, which evaluates multiple non-gene editing technologies)

General and administrative expenses increased by €1.1 million at €10.4 million in 2018 as compared to €9.3 million in 2017. This increase relates primarily to the share-based payments expense associated to the vesting of the warrant plan issued mid-2017 (non-cash expense recorded in accordance with IFRS 2 standard).

The Group's other income is associated with grants received from the Regional government in the form of recoverable cash advances (RCAs), and to R&D tax credit income:

- with respect to grant income, the Group posts a revenue in line with last year at €0.8 million;

- with respect to R&D tax credit, the Company recognized prior year for the first time a receivable on the amounts to collect from the federal government (€1.2 million income posted in 2017), including a one-off catch-up effect. The decrease for the current year income is predicated on a R&D tax credit recorded (€0.3 million), which is restricted to a base increment in 2018.

For the year 2018, the Group's other expenses mainly refer to non-cash expenses relating to remeasurement required by IFRS:

- the amortized cost remeasurement of the recoverable cash advances liability (non-cash expense of €1.0 million);
- the change in fair value of the contingent consideration and other financial liabilities (non-cash expense of €5.6 million).

The increase in these liabilities reflects both the advancement in 2018 to the allogeneic CAR-T NKG2D program (CYAD-101 product candidate) as well as the management's higher estimate for overall future commercial revenue (risk-adjusted).

The loss resulting from recurrent operations (REBIT) amounted to €38.2 million for the year 2018 versus €26.6 million for the year 2017, driven by non-cash expenses increasing by €8.2 million year-on-year (share-based payments and liabilities remeasurement impacts).

For the previous year, the Group recognized non-recurring expenses related to the amendment of the agreements with Celdara Medical LLC and Dartmouth College and the write-off of the C-Cure and Corquest assets and liabilities (respectively for €24.3 million, €0.7 million and €1.2 million). No such non-recurring items are reported in the income statement of 2018.

At year-end 2018, the loss from operations before financial results and taxes (EBIT) amounted to €38.2 million versus €52.9 million in 2017.

Financial result refers mainly to interest income on short-term investments (reported as financial income) and foreign exchange differences. Due to the depreciation of the USD compared to EUR in the previous year, the Group recognized a loss on foreign exchange differences of €4.3 million for the year 2017. For the year 2018, the gain on foreign exchange differences amounts to €0.4 million, driving the improvement in our financial net result of €4.3 million.
As a result of the foregoing, the net loss for the financial year 2018 amounts to €37.4 million versus a net loss of €56.4 million for the prior year.

5.2. Analysis of the consolidated statement of financial position

The table below sets forth the Group's consolidated balance sheet for the year ended 31 December 2018, and comparative information as at 31 December 2017.

(€'000)	As at 31 December,	
	2018	**2017**
NON-CURRENT ASSETS	**42,607**	**41,232**
Intangible assets	36,164	36,508
Property, Plant and Equipment	3,014	3,290
Non-current trade receivables	1,743	-
Other non-current assets	1,687	1,434
CURRENT ASSETS	**51,692**	**36,394**
Trade and Other Receivables	367	233
Other current assets	1,585	2,255
Short-term investments	9,197	10,653
Cash and cash equivalents	40,542	23,253
TOTAL ASSETS	**94,299**	**77,626**
EQUITY	**55,589**	**47,535**
Share Capital	41,553	34,337
Share premium	206,149	170,297
Other reserves	25,667	23,322
Accumulated deficit	(217,778)	(180,421)
NON-CURRENT LIABILITIES	**29,063**	**22,146**
Bank loans	229	326
Finance leases	652	482
Recoverable Cash advances (RCA's)	2,864	1,544
Contingent consideration and other financial liabilities	25,187	19,583
Post employment benefits	131	204
Other non-current liabilities	-	7
CURRENT LIABILITIES	**9,647**	**7,945**
Bank loans	281	209
Finance leases	484	427
Recoverable Cash advances (RCA's)	276	226
Trade payables	5,916	4,800
Other current liabilities	2,690	2,282
TOTAL EQUITY AND LIABILITIES	**94,299**	**77,626**

Intangible assets net book value mainly refers to our IPR&D assets related to our oncological programs acquired in 2015 through the OnCyte business combination. Pursuant to IFRS, the Company does not capitalize research and development expenses until marketing authorization. Accordingly, all clinical, research and development spend related to the development of our CAR-T product candidates and allogeneic platform are accounted for as operating expenses for the year 2018.

Non-current trade receivables (€1.7 million at 31 December 2018) refer to discounted and risk-adjusted milestone receivables, to be cashed in by the Group in accordance with the terms of the exclusive license agreement signed by the Group with Mesoblast Ltd. for C-Cath$_{EZ}$ device development, as above-described.

The Group's *treasury position* [2] amounts to €49.7 million at year-end. Taking into account €43.0 million net proceeds from capital raise occurred in May 2018, the treasury position went up by €15.8 million compared to prior year-end.

The capital and share premium increased by €43.0 million in 2018 as a result of the above-mentioned May 2018 capital raise.

[2] '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 advances repayable and the contingent consideration liabilities increase as a counter-part of non-cash 'other expenses' recorded in the income statement, as described above under section 5.1. The liability increase reflects both the advancement in 2018 to the allogeneic CAR-T NKG2D program (CYAD-101 product candidate) as well as the management's higher estimate for overall future commercial revenue (risk-adjusted).

5.3. Analysis of the consolidated Net cash burn[3]

The table below summarizes the *net cash burn rate* of the Group for the year 2018.

CASH BURN RATE SUMMARY

(€'000)	For the year ended 31 December,	
	2018	**2017**
Net cash used in operations	(27,249)	(44,441)
Cash component of Celdara Med. and Dartmouth Col. agreements amendment	-	13,276
Adjusted Net cash used in operations	**(27,249)**	**(31,165)**
Net cash (used in)/from investing activities	(848)	(5,964)
Contingent liability pay out	-	5,107
Adjusted Net cash used in investing activities	**(848)**	**(857)**
Net cash (used in)/from financing activities	**43,928**	**605**
Effects of exchange rate changes	**3**	**1,120**
Adjusted Net cash burn [4]	**15,834**	**(30,297)**
Cash component of Celdara Med. and Dartmouth Col. agreements amendment	-	(13,276)
Contingent liability pay out	-	(5,107)
Net cash burn	**15,834**	**(48,680)**

The net cash burn for the year is a net cash inflow amounting to €15.8 million, against a net cash outflow of €48.7 million for the prior year.

The net variance in net cash used in operations is driven by favourable foreign exchange differences (the Group posts a €0.4 million income in this respect for the year 2018 against a loss of €4.3 million for the year 2017). The underlying R&D cash spend is in line with prior year.

The bottom-line variance is explained:

- from a financing activities perspective, by the net proceeds from May 2018 capital raise (amounting to €43.0 million);
- by the absence of any non-recurring items in 2018. The latter ones totaled €18.4 million in the prior year, and referred to:
- €13.3 million cash component relating to Celdara Medical LLC and Dartmouth College agreements' amendment compensation (€24.3 million non-recurring expense reported in the company's income statement for the financial year 2017, out of which an amount of

[3] 'Net cash burn' is an alternative performance measure determined by the year-on-year net variance in the Group's treasury position as above-defined

[4] 'Adjusted Net cash burn' is an alternative performance measure, within 'Net cash burn' as above-defined, which excludes non-recurring items of significant magnitude. These non-recurring items are presented as separate lines within 'Net cash used in Operations', 'Net cash used in investing activities' and 'Net cash (used in)/from financing activities' which are cash flow classes determined in accordance with IFRS. The exclusion of these non-recurring items give rise to the following sub-totals in cash flow classes 'Adjusted Net cash used in operations', 'Adjusted Net cash used in investing activities' and 'Adjusted Net cash (used in)/from financing activities'.

€11.0 million was settled in Company's equity own shares, and thus a non-cash expense); and

- €5.1 million clinical development milestone payment to Celdara Medical LLC.

6. INFORMATION ABOUT THE COMPANY

6.1. Overview

Celyad has been incorporated on 24 July 2007 for an indefinite period of time under the name Cardio3 BioSciences. Its name was changed into Celyad on 5 May 2015.

The Company is a public limited liability company ("société anonyme" or "SA") organised and existing under the laws of Belgium with registered office at Rue Edouard Belin 2, 1435 Mont-Saint-Guibert, Belgium (enterprise number 0891.118.115 (RPM Nivelles)). Pursuant to the BCCA, the liability of shareholders of a public limited liability company is limited to the amount of their respective committed capital contribution to its capital. Celyad may be reached by telephone at the number +32 10 394 100.

Its share capital and corporate structure and the material rights of its shareholders under Belgian law and its Articles of Association are summarised below.

The Articles of Association of Celyad have been amended in accordance with the new Belgian Code of Companies and Associations ("**BCCA**"). The decision has been taken by the Shareholders' Meeting on 23 May 2019. It came into force from the publication of the decision in the Belgian Official Journal, which took place on 6[June 2019.

The description hereafter is a summary only and does not purport to give a complete overview of the Articles of Association, nor of all relevant provisions of Belgian law. Neither should it be considered as legal advice regarding these matters.

6.2. Corporate purpose

Celyad's corporate purpose is the following:

"*The company's purpose, both in Belgium and abroad, on its own behalf or on behalf of third parties, for itself or for others, is to develop new medical technologies, and in particular, but not exclusively, to research and develop, manufacture and sell parts and systems, including the procedures, formula, development and manufacturing methods, the instruments and equipment, the materials and products, the prototypes, the software and technical and research programs, the design, the patents and trademarks, all related directly or indirectly to biotechnologies and, in particular but not exclusively, to cell therapies and the various directly or indirectly related scientific, operational, legal and financial fields. The company may, if necessary, file and register all or part of its research (patents, inventions, trademarks) and partake in any operation relating directly or indirectly to its corporate purpose if these operations are necessary in order to enable it to pursue its activities.*

The company may partake, both in Belgium and abroad, in all industrial, commercial, financial, movable property and real estate transactions that are likely to help expand or promote its business directly or indirectly.

It may acquire any moveable and real property, even if it has no direct or indirect link to the company's purpose.

It can provide any form of security in order to guarantee the undertakings of an affiliated or associated company to which it is linked through a shareholding, or of any third party in general.

It can, through any means, acquire an interest in, cooperate or merge with any associations, ventures, businesses, or companies that have an identical, similar or related corporate purpose, or that are likely to promote the company or facilitate the sale of its products or services. It may acquire a financial interest in the form of new capital, a transfer, a merger, subscription or stake, or in any other manner, in companies, businesses, or operations that have a similar or related corporate purpose, or which are likely to help it achieve its corporate purpose."

Its corporate purpose is provided under article 3 of its articles of association available on its website (http:// https://www.celyad.com/en/investors/corporate-governance).

6.3. Group structure

Please refer to section 12.4.12 of this document.

6.4. Share capital and shares

On the date of this registration document, the Company's registered capital amounts to €41,552,614.57 represented by 11,942,344 shares without nominal value. The par value is €3.48 per share. As of the date of this document, the capital is fully paid up.

The table below provides an overview of the history of its share capital since its incorporation in 2007.

Category	Transaction date	Description	# of shares	Price paid per share(in €)
Class A shares	24 July 2007	Company incorporation	409,375	0.15
Class A shares	31 August 2007	Contribution in kind (upfront fee Mayo Licence)	261,732	36.30
Class B shares	23 December 2008	Capital increase (Round B)	137,150	35.36
Class B shares	23 December 2008	Contribution in kind (Loan B)	67,502	35.36
Class B shares	28 October 2010	Contribution in cash	21,000	22.44
Class B shares	28 October 2010	Contribution in kind (Loan C)	92,068	35.36
Class B shares	28 October 2010	Contribution in kind (Loan D)	57,095	35.36
Class B shares	28 October 2010	Contribution in cash	73,793	35.36
Class B shares	28 October 2010	Exercise of warrants	12,300	22.44
Class B shares	28 October 2010	Contribution in kind (Mayo receivable)	69,455	44.20
Class B shares	28 October 2010	Contribution in cash	9,048	44.20
Class B shares	31 May 2013	Contribution in kind (Loan E)	118,365	38,39
Class B shares	31 May 2013	Contribution in kind (Loan F)	56,936	38,39
Class B shares	31 May 2013	Contribution in kind (Loan G)	654,301	4,52
Class B shares	31 May 2013	Contribution in kind (Loan H)	75,755	30,71
Class B shares	31 May 2013	Contribution in cash	219,016	31,96
Class B shares	4 June 2013	Conversion of warrants	2,409,176	0,01
Ordinary shares	11 June 2013	Conversion of Class A and Class B shares in ordinary shares	4,744,067	—
Ordinary shares	5 July 2013	Initial Public Offering	1,381,500	16.65
Ordinary shares	15 July 2013	Exercise of over-allotment option	207,225	16.65
Ordinary shares	31 January 2014	Exercise of warrants issued in September 2008	5,966	22.44
Ordinary shares	31 January 2014	Exercise of warrants issued in May 2010	333	22.44
Ordinary shares	31 January 2014	Exercise of warrants issued in January 2013	120,000	4.52
Ordinary shares	30 April 2014	Exercise of warrants issued in September 2008	2,366	22.44
Ordinary shares	16 June 2014	Capital increase	284,090	44.00
Ordinary shares	30 June 2014	Capital increase	284,090	44.00

Category	Transaction date	Description	# of shares	Price paid per share(in €)
Ordinary shares	4 August 2014	Exercise of warrants issued in September 2008	5,000	22.44
Ordinary shares	4 August 2014	Exercise of warrants issued in October 2010	750	35.36
Ordinary shares	3 November 2014	Exercise of warrants issued in September 2008	5,000	22.44
Ordinary shares	21 January 2015	Contribution in kind (Celdara Medical LLC)	93,087	37.08
Ordinary shares	7 February 2015	Exercise of warrant issued in May 2010	333	22.44
Ordinary shares	3 March 2015	Capital increase	713,380	44.50
Ordinary shares	11 May 2015	Exercise of warrant issued in May 2010	500	22.44
Ordinary shares	24 June 2015	Capital increase	1,460,000	60.25
Ordinary shares	4 August 2015	Exercise of warrant issued in May 2010	666	22.44
Ordinary shares	4 August 2015	Exercise of warrant issued in October 2010	5,250	35.36
Ordinary shares	1 February 2017	Exercise of warrant issued in May 2013	207,250	2.64
Ordinary shares	2 May 2017	Exercise of warrant issued in May 2013	4,900	2.64
Ordinary shares	1 August 2017	Exercise of warrant issued in May 2013	7,950	2.64
Ordinary shares	23 August 2017	Contribution in kind (Celdara Medical LLC)	328,275	32.35
Ordinary shares	9 November 2017	Exercise of warrant issued in May 2013	5,000	2.64
Ordinary shares	9 November 2017	Exercise of warrant issued in October 2010	866	35.36
Ordinary shares	7 February 2018	Exercise of warrant issued in May 2013	4,500	2.64
Ordinary shares	22 May 2018	Capital increase	2,070,000	22.29

6.5. Operating Capital Requirements

Based on its current scope of activities, the Group estimates that its treasury position as of December 31, 2018 is sufficient to cover its cash requirements until mid-2020, therefore beyond the readouts of our clinical trials currently ongoing. We have based this estimate on assumptions that may prove to be wrong, and we could use our capital resources sooner than we currently expect. In any event, we will require additional capital to pursue preclinical and clinical activities, obtain regulatory approval for, and to commercialize our drug product candidates.

Until we can generate a sufficient amount of revenue from our drug product candidates, if ever, we expect to finance our operating activities through a combination of equity offerings, debt financings, government, including RCAs and subsidies, or other third-party financings and collaborations. Additional capital may not be available on reasonable terms, if at all. If we are unable to raise additional capital in sufficient amounts or on terms acceptable to us, we may have to significantly delay, scale back or discontinue the development or commercialization of one or more of our drug product candidates. If we raise additional funds through the issuance of additional debt or equity securities, it could result in dilution to our existing shareholders, increased fixed payment obligations and these securities may have rights senior to those of our ordinary shares. If we incur indebtedness, we could become subject to covenants that would restrict our operations and potentially impair our competitiveness, such as limitations on our ability to incur additional debt, limitations on our ability to acquire, sell or license intellectual property rights and other operating restrictions that could adversely impact our ability to conduct our business. Any of these events could significantly harm our business, financial condition and prospects.

There are no legal or economic restrictions on the ability of our subsidiaries to transfer funds to Celyad SA in the form of cash dividends, loans or advances.

Our present and future funding requirements will depend on many factors, including, among other things:

- the size, progress, timing and completion of our clinical trials for any current or future drug product candidates, including CYAD-01 and CYAD-101;
- the number of potential new drug product candidates we identify and decide to develop;
- the costs involved in filing patent applications, maintaining and enforcing patents or defending against claims or infringements raised by third parties;
- the time and costs involved in obtaining regulatory approval for drug products and any delays we may encounter as a result of evolving regulatory requirements or adverse results with respect to any of these drug products; and
- the amount of revenue, if any, we may derive either directly or in the form of royalty payments from future potential collaboration agreements on our technology platforms.

6.6. Liquidity and Capital Resources

We have financed our operations since inception through several private placements of equity securities, several contributions in kind, an initial public offering on Euronext Brussels and Paris, an initial U.S. public offering on Nasdaq, follow-on offerings on Euronext and Nasdaq, and non-dilutive governmental support. Through December 31, 2018, the total gross proceeds of the placement of our securities amounted to €235 million and, RCA's total non-dilutive funding amounted to €23.7 million.

The table hereunder summarizes our sources and uses of cash for the years ended December 31, 2018, 2017, and 2016.

	For the years ended December 31,		
(€'000)	**2018**	**2017**	**2016**
Cash used in operating activities	(27,249)	(44,441)	(24,692)
Cash from/(used in) investing activities	607	17,613	(30,157)
Cash flows from financing activities	43,928	605	3,031

Net increase/(decrease) in cash and cash equivalents	**17,286**	**(26,223)**	**(51,818)**

Comparison between 2018 and 2017

In 2018, the net cash used in our operations amounted to €27.2 million and decreased by €17.2 million compared to 2017. The underlying R&D cash spend is in line with prior year. This decrease is explained by:

- favorable foreign exchange differences (due to USD appreciation, the Group posts a €0.4 million income in this respect for the year 2018 against a loss of €4.3 million for the year 2017);
- the absence of any non-recurring items in 2018. The latter amounted to €13.3 million in the prior year, and referred to clinical development milestones payment and cash component relating to Celdara Medical LLC and Dartmouth College agreements' amendment compensation settled in 2017;

The cash used in investing activities refers mainly to transactions done on short-term investments (in 2018, we withdrew a net amount of €2.3 million from our short-term deposits, while in 2017 we withdrew a net amount of €23.6 million). In 2017, the cash flows from investing activities include also the payment of a clinical development milestone to Celdara Medical LLC of €5.3 million.

In 2018, the net cash flow from our financing activities includes the net proceeds from May 2018 capital raise (amounting to €43.0 million). In 2017, there had been an exercise of warrants, triggering cash flow from financing activities of €0.6 million. Additionally, in 2018 our proceeds from non-dilutive funding exceeded our repayments by €0.7 million, while in 2017, these proceeds and their repayments were cancelling out.

Comparison between 2017 and 2016

In 2017, the net cash used in our operations amounted to €44.4 million and increased by €24.8 million compared to 2016. This increase is explained by:

- the decrease in our net licensing revenue by €5.0 million, mostly offset by the decrease in our research and development expenses by €4.7 million;
- the non-recurring expenses for the year, for which the cash component amounted to €13.3 million (compensation relating to the amendment of the agreements with Celdara Medical LLC and Dartmouth College);

The cash used in investing activities varied significantly compared to 2016. The variance is explained by the use of our short-term deposits to finance part of our operations (in 2017, we withdrew a net amount of €23.6 million from our short-term deposits, while in 2016 we invested a net amount of €26.9

million into short-term deposits) and by the payment of a clinical development milestones to Celdara Medical LLC of €5.3 million.

Our net cash flow from our financing activities decreased by €2.4 million from €3.0 million in 2016. In 2017, the proceeds from non-dilutive funding cancelled out their repayments, while in 2016 we earned net proceeds from non-dilutive funding of €2.3 million (gross proceeds of €3.1 million, offset by repayments of €0.8 million).

6.7. Cash and Funding Sources

Over the last three years, we obtained new financing mostly through the issuance of our shares. A summary of our funding activities is as follows:

(€'000)	Total	Equity capital	Finance leases	Loans
2016	1,165	0	371	794
2017	1,168	625	543	-
2018	43,960	43,011	730	220
Total financing	**46,293**	**43,636**	**1,644**	**1,014**

In May 2018, we completed a $54.4 million (€46.1 million) financing, before deducting underwriting commissions and offering expenses, via a global offering of 2,070,000 ordinary shares to purchasers in the United States, Europe and certain countries outside the United States and Europe, comprised of 568,500 ordinary shares in the form of American Depositary Shares (ADSs) at a price per ADS of $26.28, and 1,501,500 ordinary shares at a price per share of €22.29. Each ADS represents the right to receive one ordinary share.

Warrants were exercised for an equity capital proceeds amount of €0.01 million in 2018 and €0.63 million in 2017, respectively.

Most of our capital expenditures in 2018 related to laboratory and office equipment are financed with three-year maturity finance leases (€0.7 million), similar to years 2017 (€0.5 million) and 2016 (€0.4 million).

In 2018 and in 2016, we also contracted bank loans to partially finance the leasehold improvements brought on a regular basis to our manufacturing facility and corporate office.

Amounts received from the Walloon Region, booked as advances repayable, correspond to funding received under several RCAs, dedicated to supporting specific development programs related to CAR-T platform, THINK clinical study and C-Cath$_{ez}$ at the end of 2018.

The changes in the advances repayable balance recorded in 2018, 2017 and 2016 are summarized in the table below:

(€'000)	
Balance of January 1, 2016	**11,382**
+ liability recognition	-
- repayments	(842)
+/- other transactions including change of fair value	(2,102)
Balance at December 31, 2016	**8,438**
+ liability recognition	-
- repayments	(1,233)
+/- other transactions including change of fair value	(5,435)
Balance at December 31, 2017	**1,770**
+ liability recognition	598
- repayments	(226)
+/- other transactions including change of fair value	998
Balance at December 31, 2018	**3,140**

At year-end 2017, we reversed an RCA liability amount of €5.4 million, relating to the decision of ceasing the exploitation of our product candidate C-Cure (Cardio business).

6.8. Capital Expenditures

We do not capitalize our research and development expenses until we receive marketing authorization for the applicable product candidate. Accordingly, all clinical, research and development spend related to the development of our CAR-T product candidates and allogeneic platform have been accounted for as operating expenses for the current year 2018, like for prior years.

Our capital expenditures were €1.8 million, €0.9 million and €1.8 million for the years ended December 31, 2018, 2017 and 2016 respectively.

In 2019, we anticipate new capital expenditures in our laboratories and manufacturing plant. We plan to finance most of these expenses through new finance leases.

The non-current assets are detailed in the following table.

(€'000)	As of December 31,		
	2018	**2017**	**2016**
Intangible assets	36,164	36,508	49,566
Property, plant and equipment	3,014	3,290	3,563
Other non-current assets	3,430	1,434	311
Total	**42,607**	**41,232**	**53,440**

The increase observed at year-end 2018 in the caption Other non-current assets results of the recognition of a non-current trade receivable (€1.7 million at December 31, 2018), which did not exist at year-end 2017. This receivable refers to the discounted and risk-adjusted milestone payments, to be received by the Group in accordance with the terms of the exclusive license agreement signed with Mesoblast Ltd. for C-CathEZ device development, as described in section 5.1.

The decrease observed at year-end 2017 compared to year-end 2016 in the caption intangible assets results of:

- an impairment of €7.2 million relating to Mayo Clinic (€6.0 million) and Corquest (€1.2 million) patents
- a currency translation adjustment of €4.8 million for USD depreciation towards EUR, on OnCyte underlying in-process research and development

6.9. Warrants plans

The Company has created various incentive plans under which warrants were granted to its employees, consultants or directors (all warrants are together referred to as "Warrants"). This section provides an overview of the outstanding Warrants on the date hereof.

Upon proposal of the Board of Directors, the extraordinary shareholders' meeting approved the issuance of, in the aggregate, Warrants giving right to subscribe to shares as follows:

- On 26 September 2008, (Warrants giving right to 90,000 shares). Of these 90,000 Warrants, 50,000 were offered and accepted. None are outstanding on the date hereof;
- on 5 May 2010 (Warrants giving right to 50,000 shares). Of these 50,000 Warrants (15,000 Warrants A, 5,000 Warrants B and 30,000 Warrants C), 12,710 Warrants A, 5,000 Warrants B and 21,700 Warrants C were accepted. None are outstanding on the date hereof;
- on 29 October 2010 (Warrants giving right to 79,500 shares). Out of the 79,500 Warrants offered, 61,050 Warrants were accepted by the beneficiaries and 766 Warrants are outstanding on the date hereof;
- on 31 January 2013 (Warrants giving right to 140,000 shares). Out of the 140,000 Warrants, 120,000 were granted to certain members of the executive management team and a pool of 20,000 Warrants was created. The Warrants attributed to certain members of the executive management team were fully vested at 31 December 2013 and were all exercised in January 2014 and therefore converted into ordinary shares. The remaining 20,000 Warrants were not granted and therefore lapsed;
- on 6 May 2013 (11 investor Warrants are attached to each Class B Share subscribed in the capital increase in cash which was decided on the same date, with each investor Warrant giving right to subscribe to one ordinary share – as a result, these Warrants give right to a maximum 2,433,618 ordinary shares); subject to the Warrants being offered and accepted by the beneficiaries. On 31 May 2013, Warrants giving right to 2,409,176 ordinary shares were issued and accepted, which have all been exercised on the date hereof.
- on 6 May 2013 (Warrants giving right to 266,241 ordinary shares). Out of the 266,241 Warrants offered, 253,150 Warrants were accepted by the beneficiaries and 7,000 warrants are outstanding on the date hereof.

- on 11 June 2013 (Over allotment Warrant giving right to a maximum number of shares equal to 15% of the new shares issued in the context of the U.S. initial public offering, i.e. 207,225 shares). The over-allotment Warrant was exercised on 17 July 2013;

- on 5 May 2014 (Warrants giving right to 100,000 shares), a plan of 100,000 Warrants was approved. Warrants were offered to Company's new comers (employees, non-employees and directors) in several tranches. Out of the Warrants offered, 94,400 warrants were accepted by the beneficiaries and 60,697 Warrants are outstanding on the date hereof.

- on 5 November 2015 (Warrants giving right to 466,000 shares), a plan of 466,000 Warrants was approved. Warrants were offered to Company's new comers (employees, non-employees and directors) in several tranches. Out of the Warrants offered, 343,550 warrants were accepted by the beneficiaries and 245,982 Warrants are outstanding on the date hereof.

- on 8 December 2016 (Warrants giving right to 100,000 shares), a plan of 100,000 Warrants was approved. Warrants were offered to Company's new comers (employees, non-employees and directors) in two tranches. Out of the Warrants offered, 45,000 warrants were accepted by the beneficiaries and 42,500 Warrants are outstanding on the date hereof.

- on 29 June 2017 (Warrants giving right to 520,000 shares), a plan of 520,000 Warrants was approved. Warrants were offered to Company's new comers (employees, non-employees and directors) in several tranches. Out of the Warrants offered, 312,100 warrants were accepted by the beneficiaries and 294,484 Warrants are outstanding on the date hereof.

- on 26 October 2018 (Warrants giving rights to 700,000 shares), 700,000.00 Warrants have been issued in the framework of the authorised capital. 405,100 Warrants were accepted by the beneficiaries, out of which 405,100 Warrants are still outstanding on the date hereof.

As a result, at the date of this registration document there are 1,025,747 Warrants outstanding which represent approximately 8.59 % of the total number of all its issued and outstanding voting financial instruments.

6.10. Description of rights and benefits attached to shares

6.10.1. Preferential subscription rights

In the event of a capital increase in cash with issue of new Shares, or in the event of an issue of convertible bonds or warrants exercisable in cash, the shareholders have a preferential right to subscribe for the new Shares, convertible bonds or warrants, pro rata to the part of the share capital represented by the Shares that they already hold. The Shareholders' Meeting may decide to limit or cancel such preferential subscription right, subject to specific substantive and reporting requirements. Such decision must satisfy the same quorum and majority requirements as the decision to increase the Company's share capital.

The Shareholders can also decide to authorise the Board of Directors to limit or cancel the preferential subscription right within the framework of the authorised capital, subject to the terms and conditions set forth in the BCCA. In principle, the authorisation of the Board of Directors to increase the share capital of the Company through contributions in cash with cancellation or limitation of the preferential right of the existing Shareholders is suspended as of the notification to the Company by the FSMA of a public takeover bid on the Shares. The Shareholders' Meeting can, however, authorise the Board of Directors

to increase the share capital by issuing further Shares, not representing more than 10% of the Shares of the Company at the time of such a public takeover bid (see Section 6.6.6 below).

6.10.2. Voting rights attached to shares

Each shareholder of the Company is entitled to one vote per Share. Shareholders may vote by proxy, subject to the rules described below in "*—Right to attend and vote at Shareholders' Meetings—Voting by proxy or remote voting*". Registered shares held for more than two years under the registered form by a shareholder is entitled to two votes per Share.

Voting rights can be mainly suspended in relation to Shares:

- which are not fully paid up, notwithstanding the request thereto of the Board of Directors of the Company;
- to which more than one person is entitled, except in the event a single representative is appointed for the exercise of the voting right;
- which entitle their holder to voting rights above the threshold of 5%, 10%, 15%, 20% and any further multiple of 5% of the total number of voting rights attached to the outstanding financial instruments of the Company on the date of the relevant Shareholders' Meeting, in the event that the relevant Shareholder has not notified the Company and the FSMA at least 20 days prior to the date of the Shareholders' Meeting in accordance with the applicable rules on disclosure of major shareholdings; and
- of which the voting right was suspended by a competent court.

Pursuant to the BCCA, the voting rights attached to Shares owned by the Company, as the case may be, are suspended.

Generally, the Shareholders' Meeting has sole authority with respect to:

- the approval of the annual financial statements of the Company;
- the distribution of profits (except interim dividends (see "*Rights attached to the Shares—Dividends*");
- the appointment and dismissal of directors and the statutory auditor of the Company;
- the granting of release from liability to the directors and the statutory auditor of the Company;
- the determination of the remuneration of the directors and of the statutory auditor for the exercise of their mandate;
- the approval of the remuneration report included in the annual report of the Board of Directors and the determination of the following features of the remuneration or compensation of directors, members of the executive management and certain other executives (as the case may be): (i) in relation to the remuneration of executive and non-executive directors, members of the executive management and other executives, an

exemption from the rule that share based awards can only vest during a period of at least three years as of the grant of the awards, (ii) in relation to the remuneration of executive directors, members of the executive management and other executives, an exemption from the rule that (unless the variable remuneration is less than a quarter of the annual remuneration) at least one quarter of the variable remuneration must be based on performance criteria that have been determined in advance and that can be measured objectively over a period of at least two years and that at least another quarter of the variable remuneration must be based on performance criteria that have been determined in advance and that can be measured objectively over a period of at least three years, (iii) in relation to the remuneration of independent directors, any variable part of the remuneration, and (iv) any provisions of service agreements to be entered into with executive directors, members of the executive management and other executives providing for severance payments exceeding twelve months' remuneration (or, subject to a motivated opinion by the Remuneration and Nomination Committee, 18 months' remuneration);

- the filing of a claim for liability against directors;
- the decisions relating to the dissolution, merger and certain other reorganisations of the Company; and
- the approval of amendments to the Articles of Association.

6.10.3. Right to attend and vote at shareholders' meetings

➢ **Annual meetings of Shareholders**

The annual Shareholders' Meeting is held at the registered office of the Company or at the place determined in the notice convening the Shareholders' Meeting. The meeting is held every year on the 5th May at 11 a.m. (Brussels time). If this date is a legal holiday the meeting is held the next business day at the same time. At the annual Shareholders' Meeting, the Board of Directors submits the audited annual financial statements and the reports of the Board of Directors and of the statutory auditor with respect thereto to the Shareholders.

The Shareholders' Meeting then decides on the approval of the statutory annual financial statements, the proposed allocation of the Company's profit or loss, the release from liability of the directors and the statutory auditor, the approval of the remuneration report included in the annual report of the Board of Directors and, when applicable, the (re-)appointment or dismissal of the Statutory Auditor and/or of all or certain directors. In addition, as relevant, the Shareholders' Meeting must also decide on the approval of the remuneration of the Directors and Statutory Auditors for the exercise of their mandate, and on the approval of provisions of service agreements to be entered into with executive directors, members of the executive management and other executives providing (as the case may be) for severance payments exceeding twelve months' remuneration (or, subject to a motivated opinion by the Remuneration and Nomination Committee, 18 months' remuneration) (see also "*—Rights attached to the Shares—Voting rights attached to the Shares*").

➢ **Special and extraordinary Shareholders' Meetings**

The Board of Directors or the Statutory Auditors (or the liquidators, if appropriate) may, whenever the interest of the Company so requires, convene a special or extraordinary Shareholders' Meeting. Such

Shareholders' Meeting must also be convened every time one or more Shareholders holding, alone or together, at least 10% of the Company's share capital so request. Shareholders that do not hold at least 10% of the Company's share capital do not have the right to have the Shareholders' Meeting convened.

- **Right to put items on the agenda of the Shareholders' Meeting and to table draft resolutions**

Shareholders who hold alone or together with other Shareholders at least 3% of the Company's share capital have the right to put additional items on the agenda of a Shareholders' Meeting that has been convened and to table draft resolutions in relation to items that have been or are to be included in the agenda. This right does not apply to Shareholders' Meetings that are being convened on the grounds that the quorum was not met at the first duly convened meeting (see "*—Quorum and majorities*"). Shareholders wishing to exercise this right must prove on the date of their request that they own at least 3% of the outstanding share capital. The ownership must be based, for dematerialised shares, on a certificate issued by the applicable settlement institution for the shares concerned, or by a certified account holder, confirming the number of Shares that have been registered in the name of the relevant Shareholders and, for registered Shares, on a certificate of registration of the relevant Shares in the share register book of the Company. In addition, the Shareholder concerned must register for the meeting concerned with at least 3% of the outstanding share capital (see also "*—Formalities to attend the general shareholders' meeting*"). A request to put additional items on the agenda and/or to table draft resolutions must be submitted in writing, and must contain, in the event of an additional agenda item, the text of the agenda item concerned and, in the event of a new draft resolution, the text of the draft resolution. The request must reach the Company at the latest on the twenty second day preceding the date of the Shareholders' Meeting concerned. If the Company receives a request, it will have to publish at the latest on the fifteenth day preceding the Shareholders' Meeting an update of the agenda of the meeting with the additional agenda items and draft resolutions.

- **Notices convening the Shareholders' Meeting**

The notice convening the Shareholders' Meeting must state the place, date and hour of the meeting and must include an agenda indicating the items to be discussed. The notice needs to contain a description of the formalities that Shareholders must fulfil in order to be admitted to the Shareholders' Meeting and exercise their voting right, information on the manner in which Shareholders can put additional items on the agenda and table draft resolutions, information on the manner in which Shareholders can ask questions during the Shareholders' Meeting, information on the procedure to participate to the Shareholders' Meeting by means of a proxy or to vote by means of a remote vote, and, as applicable, the registration date for the Shareholders' Meeting. The notice must also mention where Shareholders can obtain a copy of the documentation that will be submitted to the Shareholders' Meeting, the agenda with the proposed resolutions or, if no resolutions are proposed, a commentary by the Board of Directors, updates of the agenda if Shareholders have put additional items or draft resolutions on the agenda, the forms to vote by proxy or by means of a remote vote, and the address of the webpage on which the documentation and information relating to the Shareholders' Meeting will be made available. This documentation and information, together with the notice and the total number of outstanding voting rights, must also be made available on the Company's website at the same time as the publication of the notice convening the meeting, for a period of five years after the relevant Shareholders' Meeting.

The notice convening the Shareholders' Meeting has to be published at least 30 days prior to the Shareholders' Meeting in the Belgian Official Gazette (*Moniteur Belge/Belgisch Staatsblad*) and in a newspaper that is published nation-wide in Belgium and in media that can be reasonably relied upon for the dissemination of information within the EEA in a manner ensuring fast access to such information on a non-discriminatory basis. A publication in a nation¬wide newspaper is not needed for annual

Shareholders' Meetings taking place on the date, hour and place indicated in the Articles of Association of the Company if the agenda is limited to the treatment of the financial statements, the annual report of the Board of Directors, the remuneration report and the report of the statutory auditor, the discharge from liability of the directors and statutory auditor, and the remuneration of directors. (See also "*— Rights attached to the Shares—Voting Rights attached to the Shares*"). In addition to this publication, the notice has to be distributed at least 30 days prior to the meeting via the normal publication means that the Company uses for the publication of press releases and regulated information. The term of 30 days prior to the Shareholders' Meeting for the publication and distribution of the convening notice can be reduced to 17 days for a second meeting if, as the case may be, the applicable quorum for the meeting is not reached at the first meeting, the date of the second meeting was mentioned in the notice for the first meeting and no new item is put on the agenda of the second meeting.

At the same time as its publication, the convening notice must also be sent to the holders of registered Shares, holders of registered bonds, holders of registered warrants, holders of registered certificates issued with the co-operation of the Company (if any), and, as the case may be, to the directors and statutory auditor of the Company. This communication needs to be made by letter unless the addressees have individually and expressly accepted in writing to receive the notice by another form of communication.

- **Formalities to attend the Shareholders' Meeting**

All holders of Shares, warrants, profit-sharing certificates, non-voting Shares, bonds, subscription rights or other securities issued by the Company, as the case may be, and all holders of certificates issued with the co-operation of the Company (if any) can attend the Shareholders' Meetings insofar as the law or the Articles of Association entitles them to do so and, as the case may be, gives them the right to participate in voting.

In order to be able to attend a Shareholders' Meeting, a holder of securities issued by the Company must satisfy two criteria: being registered as holder of securities on the registration date for the meeting, and notify the Company:

- Firstly, the right to attend Shareholders' Meetings applies only to persons who are registered as owning securities on the fourteenth day prior to the Shareholders' Meeting at midnight (Central European Time) via registration, in the applicable register book for the securities concerned (for registered securities) or in the accounts of a certified account holder or relevant settlement institution for the securities concerned (for dematerialised securities or securities in book-entry form).

- Secondly, in order to be admitted to the Shareholders' Meeting, securities holders must notify the Company at the latest on the sixth day prior to the Shareholders' Meeting whether they intend to attend the meeting and indicate the number of Shares in respect of which they intend to do so. For the holders of dematerialised securities or securities in book-entry form, the notice should include a certificate confirming the number of securities that have been registered in their name on the record date. The certificate can be obtained by the holder of the dematerialised securities or securities in book-entry form with the certified account holder or the applicable settlement institution for the securities concerned.

The formalities for the registration of securities holders, and the notification of the Company must be further described in the notice convening the Shareholders' Meeting.

- **Voting by proxy or remote voting**

Each Shareholder has, subject to compliance with the requirements set forth above under "*—Formalities to attend the Shareholders' Meeting*", the right to attend a Shareholders' Meeting and to vote at the Shareholders' Meeting in person or through a proxy holder, who does not need to be a Shareholder. A Shareholder may designate, for a given meeting, only one person as proxy holder, except in circumstances where Belgian law allows the designation of multiple proxy holders. The appointment of a proxy holder may take place in paper form or electronically (in which case the form shall be signed by means of an electronic signature in accordance with applicable Belgian law), through a form which shall be made available by the Company. The signed original paper or electronic form must be received by the Company at the latest on the sixth calendar day preceding the meeting. The appointment of a proxy holder must be made in accordance with the applicable rules of Belgian law, including in relation to conflicts of interest and the keeping of a register.

The notice convening the meeting may allow Shareholders to vote remotely in relation to the Shareholders' Meeting, by sending a paper form or, if specifically allowed in the notice convening the meeting, by sending a form electronically (in which case the form shall be signed by means of an electronic signature in accordance with applicable Belgian law). These forms shall be made available by the Company. The original signed paper form must be received by the Company at the latest on the sixth calendar day preceding the date of the meeting. Voting through the signed electronic form may occur until the last calendar day before the meeting.

The Company may also organise a remote vote in relation to the Shareholders' Meeting through other electronic communication methods, such as, among others, through one or several websites. The Company shall specify the practical terms of any such remote vote in the convening notice.

Holders of securities who wish to be represented by proxy or vote remotely must, in any case comply with the formalities to attend the meeting, as explained under "*—Formalities to attend the Shareholders' Meeting*".

- **Quorum and majorities**

In general, there is no attendance quorum requirement for a Shareholders' Meeting and decisions are generally passed with a simple majority of the votes of the Shares present or represented. However, capital increases (other than those decided by the Board of Directors pursuant to the authorised capital), decisions with respect to the Company's dissolution, mergers, de-mergers and certain other reorganisations of the Company, amendments to the Articles of Association (other than an amendment of the corporate purpose), and certain other matters referred to in the BCCA do not only require the presence or representation of at least 50% of the share capital of the Company but also a majority of at least 75% of the votes cast. An amendment of the Company's corporate purpose requires the approval of at least 80% of the votes cast at a Shareholders' Meeting, which can only validly pass such resolution if at least 50% of the share capital of the Company and at least 50% of the profit certificates, if any, are present or represented. In the event where the required quorum is not present or represented at the first meeting, a second meeting needs to be convened through a new notice. The second Shareholders' Meeting may validly deliberate and decide regardless of the number of Shares present or represented. The special majority requirements, however, remain applicable.

- **Right to ask questions**

Within the limits of article 7:139 of the BCCA, Shareholders have a right to ask questions to the directors in connection with the report of the Board of Directors or the items on the agenda of such Shareholders' Meeting. Shareholders can also ask questions to the statutory auditor in connection with its report. Such questions can be submitted in writing prior to the meeting or can be asked at the meeting. Written questions must be received by the Company no later than the sixth day prior to the meeting. Written and oral questions will be answered during the meeting concerned in accordance with applicable law. In addition, in order for written questions to be considered, the Shareholders who submitted the written questions concerned must comply with the formalities to attend the meeting, as explained under "— *Formalities to attend the Shareholders' Meeting*".

6.10.4. Dividend rights

All Shares entitle the holder thereof to an equal right to participate in the Company's profits (if any). Pursuant to the BCCA, the Shareholders can in principle decide on the distribution of profits with a simple majority vote at the occasion of the annual Shareholders' Meeting, based on the most recent statutory audited financial statements, prepared in accordance with the generally accepted accounting principles in Belgium and based on a (non-binding) proposal of the Company's Board of Directors. The Company's Articles of Association also authorise the Board of Directors to declare interim dividends without Shareholder approval subject to the terms and conditions of the BCCA.

The Company's ability to distribute dividends is subject to availability of sufficient distributable profits as defined under Belgian law on the basis of the Company's statutory financial statements. In particular, dividends can only be distributed if following the declaration and issuance of the dividends the amount of the Company's net assets on the date of the closing of the last financial year as follows from the statutory financial statements (i.e., summarised, the amount of the assets as shown in the balance sheet, decreased with provisions and liabilities, all in accordance with Belgian accounting rules), decreased with the non-amortised costs of incorporation and extension and the non-amortised costs for research and development, does not fall below the amount of the paid-up capital (or, if higher, the issued capital), increased with the amount of non-distributable reserves. In addition, prior to distributing dividends, 5% of the net profits must be allotted to a legal reserve, until the legal reserve amounts to 10% of the Company's share capital.

6.10.5. Rights regarding liquidation

In the event of dissolution of the Company, for any reason or at any time, the liquidation shall be effected by liquidators appointed by the Shareholders' Meeting. Unless decided otherwise, the liquidators shall act jointly. To this end, the liquidators have the broadest powers under articles 2:70 and following of the BCCA, subject to restrictions imposed by the Shareholders' Meeting. The Shareholders' Meeting determines the remuneration of the liquidators.

After settlement of all debts, charges and expenses, the net assets are first used to, in cash or in kind, repay the fully paid and not yet repaid amount of the Shares. Any surplus shall be divided equally among all Shares.

If the net proceeds are not sufficient to repay all the Shares, the liquidators shall pay the Shares that have been paid to a greater extent until they are on a par with the Shares paid up to a lesser extent or they make an additional call for capital at the expense of the latter.

6.10.6. Changes to the share capital

- **Changes to the share capital decided by the shareholders**

The shareholders meeting can at any given time decide to increase or decrease its share capital. Such resolution must satisfy the quorum and majority requirements that apply to an amendment of the articles of association, as described above under section 6.6.3.

- **Capital increases by the board of directors**

Subject to the same quorum and majority requirements as for a capital increase decided by the shareholders' meeting, the latter can authorise the board of directors, within certain limits, to increase its share capital without any further approval of the shareholders being required. This authorisation needs to be limited in time (*i.e.*, it can only be granted for a renewable period of maximum five years as from the date of the publication of the authorisation in the Annexes to the Belgian Official Gazette), and in scope (*i.e.*, the authorised capital may not exceed the amount of the share capital at the time of the authorisation).

On 29 June 2017, the extraordinary shareholders' meeting authorised the board of directors to increase its share capital in one or more transactions with a maximum amount € 33,117,976.63. The board of directors has already used the authorized capital as follows:

- EUR 1,141,512.18 (excluding issue premium) for a share capital increase by contribution in kind on 23 August 2017;

- EUR 1,809,600 (excluding issue premium) for the issuance of warrants on 27 September 2017;

- EUR 7,203,600 (excluding issue premium) for a share capital increase by contribution in cash on 22 May 2018 ;

- EUR 2,436,000 (excluding issue premium) for the issuance of warrants on 26 October 2018.

Therefore, the remaining authorized capital, currently amounts to € 20,527,264.63.

If the capital is increased within the limits of the authorised capital, the board of directors will be authorised to request payment of an issuance premium. This issuance premium will be booked on a non-available reserve account, which may only be decreased or disposed of by a resolution of a shareholders meeting taken in accordance with the provisions relating to amendments of the articles of association.

This board of directors' authorisation will be valid for capital increases subscribed for in cash or in kind, or made by capitalisation of reserves and issuance premiums, with or without issue of new shares. The board of directors is authorised to issue convertible bonds, warrants or a combination thereof within the limits of the authorised capital.

The board of directors is authorised, within the limits of the authorised capital, to limit or cancel the preferential subscription rights granted by law to the holders of shares if in doing so it is acting in its interests and in accordance with Article 7:191 and following of the BCCA. The board of directors is authorised to limit or cancel the preferential subscription rights in favour of one or more specified persons, even if such persons are not members of its personnel.

6.10.7. Form and transferability of the shares

Company's Shares can take the form of registered shares or dematerialised shares.

BCCA and the Articles of Association entitle shareholders to request, in writing and at their expense, the conversion of their dematerialised shares into registered shares and *vice versa*. Any costs incurred as a result of the conversion of shares into another form will be borne by the shareholder.

For shareholders who opt for registered shares, the shares will be recorded in its shareholder register.

All of the Company's shares are fully paid up and freely transferable.

6.10.8. Purchase and sale of own shares

In accordance with its Articles of Association and the BCCA, the Company can only purchase and sell its own shares by virtue of a special shareholders' resolution approved by at least 75% of the votes validly cast at a shareholders meeting where at least 50% of the share capital (and at least 50% of the profit certificates, if any) are present or represented. The prior shareholders' approval is not required if the Company purchases its own shares to offer them to its personnel.

In accordance with the BCCA, an offer to purchase its own shares must be made to all shareholders under the same conditions. This does not apply to (i) the acquisition of shares by companies listed on a regulated market and companies whose shares are admitted to trading on a multilateral trading facility (an "MTF"), provided that the company ensures equal treatment of shareholders finding themselves in the same circumstances by offering an equivalent price (which is assumed to be the case: (a) if the transaction is executed in the central order book of a regulated market or MTF; or (b) if it is not so executed in the central order book of a regulated market or MTF, in case the offered price is lower than or equal to the highest actual independent bid price in the central order book of a regulated market or (if not listed on a regulated market) of the MTF offering the highest liquidity in the share); or (ii) the acquisition of shares that has been unanimously decided by the shareholders at a meeting where all shareholders were present or represented.

A company can only acquire its own shares with funds that would otherwise be available for distribution to its shareholders pursuant to Article 7:212 of the BCCA.

At the date of this registration document, the Board of Directors was not authorised by the shareholders meeting to purchase Celyad's own shares and neither do the Articles of Association authorise the board of directors to purchase own shares in case of imminent serious harm to the Company in accordance with Article 620, §1, paragraph 3 of the Belgian Company Code.

6.10.9. Relevant legislation

- **Notification of significant shareholdings**

Pursuant to the Belgian Law of 2 May 2007 on the disclosure of significant shareholdings in issuers whose securities are admitted to trading on a regulated market and containing various provisions (*Loi relative à la publicité des participations importantes dans des émetteurs dont les actions sont admises à la négotiation sur un marché règlementé et portant dispositions diverses/Wet op de openbaarmaking van belangrijke deelnemingen in emittenten waarvan aandelen zijn toegelaten to de verhandeling op een gereglementeerde markt en houdende diverse bepalingen*) (the ***Transparency Law***), implementing

in Belgian law Directive 2004/109/EC, a notification to the Company and to the FSMA is required by all natural and legal persons in the following instances:

- an acquisition or disposal of voting securities, voting rights or financial instruments that are treated as voting securities;
- the holding of voting securities upon first admission of them to trading on a regulated market;
- the passive reaching of a threshold;
- the reaching of a threshold by persons acting in concert or a change in the nature of an agreement to act in concert;
- where a previous notification concerning the voting securities is updated;
- the acquisition or disposal of the control of an entity that holds the voting securities; and
- where the Company introduces additional notification thresholds in its Articles of Association, in each case where the percentage of voting rights attached to the securities held by such persons reaches, exceeds or falls below the legal threshold, set at 5% of the total voting rights, and 10%, 15%, 20% and so on at intervals of 5% or, as the case may be, the additional thresholds provided in the Articles of Association.

The notification must be made as soon as possible and at the latest within four trading days following the acquisition or disposal of the voting rights triggering the reaching of the threshold. Where the Company receives a notification of information regarding the reaching of a threshold, it has to publish such information within three trading days following receipt of the notification. No shareholder may cast a greater number of votes at a Shareholders' Meeting of the Company than those attached to the rights or securities it has notified in accordance with the Transparency Law at least 20 days before the date of the Shareholders' Meeting, subject to certain exceptions.

The form on which such notifications must be made, as well as further explanations, can be found on the website of the FSMA (www.fsma.be).

- **Short positions disclosure obligations**

Pursuant to EU Regulation No 236/2012, each person holding a net short position attaining 0.2% of the issued share capital of the Company must report it to the FSMA. Each subsequent increase of this position by 0.1% above 0.2% will also have to be reported. Each net short position equal to 0.5% of the issued share capital of the Company and any subsequent increase of that position by 0.1% will be made public via the FSMA short selling register. To calculate whether a natural person or legal person has a net short position, their short positions and long positions must be set off. A short transaction in a share can only be contracted if a reasonable case can be made that the shares sold can actually be delivered, which requires confirmation of a third party that the shares have been located.

- **Public takeover bids**

Public takeover bids on the Shares and other securities giving access to voting rights (such as subscription rights or convertible bonds, if any) are subject to supervision by the FSMA. Any public

takeover bids must be extended to all of the Company's voting securities, as well as all other securities giving access to voting rights. Prior to making a bid, a bidder must publish a prospectus which has been approved by the FSMA prior to publication.

Belgium has implemented the Thirteenth Company Law Directive (European Directive 2004/25/EC of 21 April 2004) in the Belgian law of 1 April 2007 relating to public tender offers (*Loi relative aux offres publiques d'acquisition/Wet op de openbare overnamebiedingen*) (***Takeover Law***) and the Belgian Royal Decree of 27 April 2007 on public takeover bids (*Arrêté royal sur les offres publiques d'acquisition/Koninklijk besluit op de openbare overnamebiedingen*) (the ***Takeover Royal Decree***). The Takeover Law provides that a mandatory bid must be launched if a person, as a result of its own acquisition or the acquisition by persons acting in concert with it or by persons acting for its account, directly or indirectly holds more than 30% of the voting securities in a company having its registered office in Belgium and of which at least part of the voting securities are traded on a regulated market or on a multilateral trading facility designated by the Takeover Royal Decree.

The mere fact of exceeding the relevant threshold through the acquisition of Shares will give rise to a mandatory bid, irrespective of whether the price paid in the relevant transaction exceeds the current market price. The duty to launch a mandatory bid does not apply in case of an acquisition if it can be shown that a third party exercises control over the Company or that such party holds a larger stake than the person holding 30% of the voting securities.

There are several provisions of Belgian company law and certain other provisions of Belgian law, such as the obligations to disclose significant shareholdings and merger control, that may apply to the Company and which may make an unsolicited tender offer, merger, change in management or other change in control, more difficult. These provisions could discourage potential takeover attempts that other Shareholders may consider to be in their best interest and could adversely affect the market price of the Shares. These provisions may also have the effect of depriving the Shareholders of the opportunity to sell their Shares at a premium.

In addition, the board of directors of Belgian companies may in certain instances, and subject to prior authorisation by the Shareholders, deter or frustrate public takeover bids through dilutive issuances of equity securities (pursuant to the authorised capital) or through share buy-backs (i.e., purchase of own shares).

The Articles of Association of the Company do not provide specific protective mechanisms against public takeover bids or change of control.

- **Squeeze-outs**

Pursuant to article 7:82 of the BCCA or the regulations promulgated thereunder, a person or legal entity, or different persons or legal entities acting alone or in concert, who, together with the company, own 95% of the securities with voting rights in a listed company, are entitled to acquire the totality of the securities with voting rights in that company following a squeeze-out offer. The securities that are not voluntarily tendered in response to such an offer are deemed to be automatically transferred to the bidder at the end of the procedure. At the end of the squeeze-out procedure, the company is no longer deemed a listed company, unless bonds issued by the company are still distributed amongst the public. The consideration for the securities must be in cash and must represent the fair value (verified by an independent expert) as to safeguard the interests of the transferring Shareholders.

A squeeze-out offer is also possible upon completion of a public takeover, provided that the bidder holds 95% of the voting capital and 95% of the voting securities of the listed company. In such case, the bidder may require that all remaining Shareholders sell their securities to the bidder at the offer price of the takeover bid, provided that, in case of a voluntary takeover offer, the bidder has also acquired 90% of the voting capital to which the offer relates. The shares that are not voluntarily tendered in response to any such offer are deemed to be automatically transferred to the bidder at the end of the procedure. The bidder needs to reopen his/her public takeover offer within three months following the expiration of the offer period.

- **Sell-out rights**

Within three months following the expiration of an offer period, holders of voting securities or of securities giving access to voting rights may require the offeror, acting alone or in concert, who owns 95% of the voting capital and 95% of the voting securities in a listed company following a takeover bid, to buy its securities from it at the price of the bid, on the condition that, in case of a voluntary takeover offer, the offeror has acquired, through the acceptance of the bid, securities representing at least 90% of the voting capital subject to the takeover bid.

6.10.10. American Depositary Shares

Citibank, N.A. as depositary, registers and delivers American Depositary Shares, also referred to as ADSs. Each ADS represents the right to receive one ordinary share deposited with the principal office of Citibank International Limited, located at EGSP 186, 1 North Wall Quay, Dublin 1 Ireland or any successor, as custodian for the depositary.

An ADS holder will not be treated as one of its shareholders and will not have shareholder rights. The depositary will be the holder of the ordinary shares underlying ADSs. A holder of ADSs will have ADS holder rights. A deposit agreement among the Company, the depositary and all persons directly and indirectly holding ADSs sets out ADS holder rights as well as the rights and obligations of the depositary. New York law governs the deposit agreement and the ADRs.

The depositary has agreed to pay ADS holders the cash dividends or other distributions it or the custodian receives on ordinary shares or other deposited securities, after deducting its fees and expenses.

An ADS holder may surrender his ADSs at the depositary's corporate trust office. Upon payment of the depository's fees and expenses and of any taxes or charges, such as stamp taxes or share transfer taxes or fees, the depositary will deliver the ordinary shares and any other deposited securities underlying the ADSs to the ADS holder or a person designated by him at the office of the custodian or through a book-entry delivery.

The ADS holder may instruct the depositary to vote the number of whole deposited ordinary shares his ADSs represent. The depositary will notify the ADS holder of shareholders' meetings or other solicitations of consents and arrange to deliver its voting materials to ADS holders if the Company asks it to. Those materials will describe the matters to be voted on and explain how the ADS holder may instruct the depositary how to vote. For instructions to be valid, they must reach the depositary by a date set by the depositary.

The depositary will try, as far as practical, and subject to the laws of Belgium and to its articles of association, to vote or to have its agents vote the ordinary shares or other deposited securities as instructed by ADS holders. If the Company requested the depositary to act at least 30 days prior to the

meeting date and the depositary does not receive voting instructions from the ADS holder by the specified date, it will consider the ADS holder to have authorized and directed it to vote or cause to be voted the number of deposited securities represented by his ADSs in favor of all resolutions set out in the notice of meeting that are endorsed by the Company's board of directors and against all resolutions of that kind that are not so endorsed. The depositary will vote or cause to be voted the deposited securities in accordance with the above unless the Company notifies the depositary that the Company does not wish the deposited securities to be so voted. The depositary will only vote or attempt to vote as the ADS holder instructs or as described above.

7. INDUSTRY AND BUSINESS OVERVIEW

7.1. Overview

Celyad is a clinical-stage biopharmaceutical company focused on the development of cell-based therapies for the treatment of cancer. Our current clinical candidates utilize a chimeric antigen receptor, or CAR, known as NKG2D, which is an activating receptor of Natural Killer, or NK, cells transduced on T-lymphocytes, or T cells. NK cells are lymphocytes of the immune system that kill diseased cells. The receptors of the NK cells used in our therapies target the binding molecules, called ligands, that are expressed in cancer cells, but are absent or expressed at very low levels in normal cells. We believe NKG2D-based CAR-T approach has the potential to treat a broad range of both solid and hematologic tumors.

Our lead drug product candidate, CYAD-01 (CAR-T-NKG2D), is an autologous (personalized) CAR, using NKG2D in Phase 1 development for both the treatment of hematological malignancies such as relapsed/refractory (r/r) acute myeloid leukemia (AML) and myelodysplastic syndrome (MDS) as well as solid tumors including metastatic colorectal cancer (mCRC). In addition to CYAD-01 we also leverage the NKG2D receptor in our second clinical candidate CYAD-101.

In December 2016, following the successful completion of a proof-of-concept clinical trial we conducted at the Dana-Farber Cancer Institute, in which we observed no treatment related safety concerns and we observed initial signs of clinical activity, we initiated a Phase 1 clinical trial, called THINK (THerapeutic Immunotherapy with NKR-2), to assess the safety and clinical activity of multiple administrations of CYAD-01 in seven refractory cancers, including both solid tumors and hematologic malignancies. Based on promising results from the THINK trial, we initiated additional trials in 2018 to further evaluate CYAD-01 both in r/r AML and mCRC patients. These trials included the DEPLETHINK trial and SHRINK trial, respectively.

CYAD-101 is a first-in-class, non-gene edited allogeneic (donor derived) CAR-T product candidate that co-expresses the chimeric antigen receptor NKG2D and the novel inhibitory peptide TIM (T cell receptor [TCR] Inhibiting Molecule). The expression of TIM reduces signaling of the TCR complex and could therefore reduce or eliminate Graft versus Host Disease (GvHD) in patients treated with CYAD-101.

Beyond CYAD-01 and CYAD-101, we are also investigating several novel, CAR-T product candidates in preclinical development including the next-generation autologous NKG2D-based CAR-T product candidates CYAD-02 and CYAD-03 for the treatment of hematological malignancies and solid tumors. In addition to our TIM technology for development of allogeneic CAR-T development, we are also evaluating a novel, non-gene editing approach which utilizes short hairpin RNA (shRNA) technology. The shRNA-based allogeneic CAR-T candidates referred to as the CYAD-200 series. These include CYAD-211, B-cell maturation antigen (BCMA) targeting CAR-T candidate for the treatment of multiple myeloma, CYAD-221, CD19 targeting CAR-T candidate for the treatment of B-cell malignancies and CYAD-231, dual specific CAR-T candidate targeting NKG2D and an undisclosed membrane protein.

7.2. Strategy

Celyad's strategy is to continue the advancement of CAR-T therapies. Key components of our strategy include:

- Accelerate the clinical development program for CYAD-01 for the treatment of relapsed / refractory AML and MDS and focus on a path to commercialization of the investigational therapy
- Leverage our innovative allogeneic approaches including TIM for CYAD-101, novel shRNA platform for CYAD-200 series and broad allogeneic intellectual property to become a leading player in the field of off-the-shelf approaches to CAR-T
- "Crack the code" in the treatment of solid tumors with an NKG2D-based CAR-T therapy through well-established and novel combination regimens to pursue multiple indications

Background on Cancer and CAR T-Cell Therapy

Cancer is the second leading cause of death in the United States after cardiovascular diseases, according to the U.S. Centers for Disease Control and Prevention. According to the American Cancer Society, in 2014, there were an estimated 1.6 million new cancer cases diagnosed and over 550,000 cancer deaths in the United States alone. In the past decades, the cornerstones of cancer therapies have been surgery, chemotherapy and radiation therapy. Since 2001, molecules that specifically target cancer cells have emerged as standard treatments for a number of cancers. For example, Gleevec is marketed by Novartis AG for the treatment of leukemia, and Herceptin is marketed by Genentech, Inc. for the treatment of breast and gastric cancer. Although targeted therapies have significantly improved the outcomes for certain patients with these cancers, there is still a high unmet need for the treatment of these and many other cancers.

Below are the statistics regarding certain forms of solid and hematological cancers and their estimated death rates in the United States for 2018:

	2018 estimates for the United States	
	New cases	**Deaths**
Acute myeloid leukemia	19,520	10,670
Multiple myeloma	30,770	12,770
Colorectal cancer	140,250	50,630
Non-Hodgkin lymphoma	74,680	19,910

Source: SEER, American Cancer Society

CAR T-Cell Therapy

The immune system has a natural response to cancer, as cancer cells express antigens that can be recognized by cells of the immune system. Upon recognition of a cancer antigen, activated T-cells release substances that kill cancer cells and attract other immune cells to assist in the killing process. However, cancer cells can develop the ability to release inhibitory factors that allow them to evade immune response, resulting in the formation of cancers.

CAR T-cell therapy is a new technology that broadly involves engineering patients' own T-cells to express CARs so that these re-engineered cells recognize and kill cancer cells, overcoming cancer cells' ability to evade the immune response. CARs are comprised of the following elements:

- binding domains that encode proteins, such as variable fragments of antibodies that are expressed on the surface of a T-cell and allow the T-cell to recognize specific antigens on cancer cells;
- intracellular signaling domains derived from T-cell receptors that activate the signaling pathways responsible for the immune response following binding to cancer cells. This allows the T cell to trigger the killing activity of the target cancer cell once it is recognized; and
- costimulatory and adaptor domains, which enhance the effectiveness of the T-cells in their immune response.

Once activated, CAR T-cells proliferate and kill cancer cells directly through the secretion of cytotoxins that destroy cancer cells, and these cytokines attract other immune cells to the tumor site to assist in the killing process.

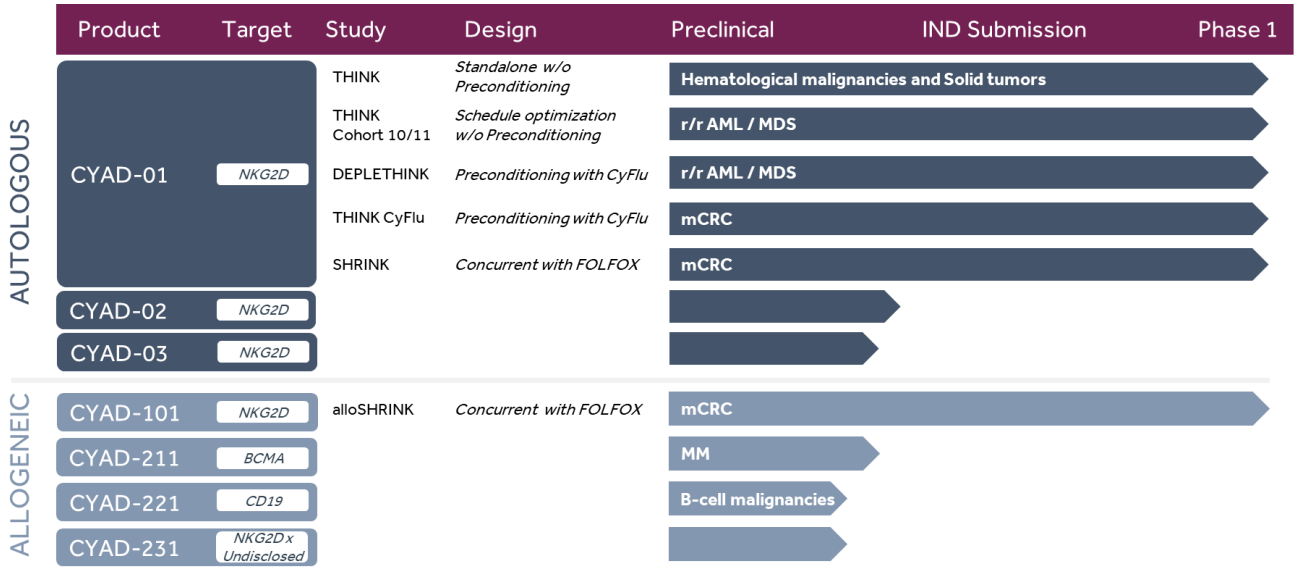
The CAR T-cell manufacturing process starts with collecting cells from a patient's blood. T-cells are then selected, following which the CAR is introduced into the T-cells using vectors. The CAR T-cells are then expanded prior to injection back into the patient.

Current Investigational Treatments of Cancer Using CAR T-Cells

CAR-T cell therapy is an emerging approach for the treatment of some cancers, such as B-cell malignancies.

CAR CD19 is the most studied CAR. CAR CD19 has an antigen binding domain that recognizes the CD19 antigen that is present on all B lymphocytes. This means that if a cancer originates from B lymphocytes, such as Acute Lymphoblastic Leukemia (ALL), then a CAR bearing the CD19 antibody could potentially recognize it and destroy it. Indeed, results of a clinical trial reported in the New England Journal of Medicine in October 2014 demonstrated that CAR CD19 CAR therapy was effective in treating patients with relapsed and refractory ALL. Treatment was associated with a complete remission rate of 90% and sustained remissions of up to two year after treatment. Despite its promise, CAR CD19 therapy is inherently limited to the treatment of B-cell malignancies. CAR CD19 also targets normal B lymphocytes leading to the need to treat those patients with gamma globulins.

7.3. Pipeline and Approach



AML: Acute myeloid leukemia; mCRC: Metastatic colorectal cancer; MDS: Myelodysplastic syndrome; MM: Multiple myeloma; NHL: Non-Hodgkin's lymphoma; r/r: relapse/refractory. CyFlu: cyclophosphamide and fludarabine; FOLFOX: leucovorin, fluorouracil, and oxaliplatin.

Our lead clinical candidates, CYAD-01, an autologous CAR-T cell therapy, and CYAD-101, an allogeneic CAR-T therapy, both use the native sequence of the NKG2D receptor in the CAR construct. Importantly, CYAD-101 also expresses the peptide TIM which is used to dampen the signaling of the TCR complex and classify the product as allogeneic. In both CYAD-01 and CYAD-101, the human natural sequence of NKG2D is expressed outside the T cell and bound to an intracellular domain called CD3 Zeta. This intracellular domain is used in most other CARs and is responsible for the activation of the T cell once NKG2D recognizes and binds to its target. In addition, the complex NKG2D CD3 Zeta binds to endogenous DAP 10, which is a co-stimulatory molecule present on T cells, which means that the activation triggered by the primary stimulatory chain CD3 Zeta is further strengthened by DAP 10, a secondary or co-stimulatory domain.

NKG2D receptor ligands are expressed in numerous solid tumors and blood cancers, including ovarian, bladder, breast, lung and liver cancers, as well as leukemia, lymphoma and myeloma. In preclinical studies, we have observed bioactivity of CYAD-01 when as few as 7% of the cancer cells within a given cell population expressed a NKG2D receptor ligand.

Cells under stress induced by factors such as viral infection, cancer or inflammation express the ligands recognized by the NKG2D receptor, which is naturally present on NK cells. Eight NKG2D ligands have been characterized (namely ULBP families 1 to 6, MICA and MICB). Those ligands are a signal for NK cells that the stressed cells are malfunctioning and should be destroyed. NKG2D ligands are present in most cells, but their expression at the cell surface is tightly regulated, meaning that expression at the cell surface is absent or limited in healthy cells but overexpressed in infected or stressed cells. Preclinical studies have demonstrated that multiple solid and hematological cancer tumors express one or more NKG2D ligands. However, in preclinical studies we have not observed the cell surface expression of NKG2D ligands in healthy tissue.

In addition, preclinical mouse studies conducted by Charles Sentman, Ph.D., of our academic collaborator Dartmouth College, have demonstrated that CAR-T NKG2D may have bioactivity beyond a direct cytotoxic effect of the CAR on the targeted tumor cell. Three additional potential modes of such activity are:

- Both regulatory T cells that modulate the immune system and bone marrow immune cells, called myeloid-derived suppressor cells (MDSCs), were shown to express NKG2D ligands when they are present in tumors. Hence, those immune suppressive cells are also a target of CYAD-01, thereby potentially suppressing immune inhibition in the tumor cell.
- Cells from rapidly dividing micro vessels in the tumor mass were shown to express NKG2D ligands. Hence, the blood supply to the tumor is a potential target of CYAD-01.
- In animals in which the tumors were eliminated following the administration of CAR-T NKG2D, a re-challenge by the same tumor cell line was ineffective, rendering the animal potentially "immunized" against this tumor cell line. Surviving animals challenged with other tumor cell lines showed evidence of tumor growth.

Preclinical Development

CYAD-01 has been tested in preclinical models of solid and blood cancers, including lymphoma, ovarian cancer, melanoma and myeloma. In preclinical studies, treatment with CYAD-01 significantly increased survival. In studies, 100% of treated mice survived through the follow-up period of the applicable study, which in one study was 325 days. All untreated mice died during the follow-up period of the applicable study.

In one representative study, the treatment with CYAD-01 completely prevented tumor development in mice injected with ovarian cancer cells and followed over a period of 225 days. In contrast, all mice injected with ovarian cancer cells that were treated with unmodified T-cells developed cancerous tumors and died during that period. Our preclinical models have shown that administration of CYAD-01 is followed by changes in a tumor's micro-environment resulting from the local release of chemokines, a family of small cytokines.

In a preclinical study, mice that had been injected with 5T33MM cancer cells (a myeloma cancer) and treated with CYAD-01 were rechallenged, either with the 5T33MM cancer cells or a different tumor type (RMA lymphoma cells). The mice that were rechallenged with the same tumor type survived, while the mice that were challenged with a different tumor type died. Of note, at the time of the re-challenge of the surviving animals, no CYAD-01 was detected in the animals, hence the protection against the original tumor is linked to an adaptive immunity mechanism. We do not believe that this effect has been observed with other CARs.

Moreover, preclinical studies have suggested that CYAD-01 could potentially have a direct effect on tumor vasculature. Tumor vessels express ligands for the NKG2D receptor that are not generally expressed by normal vessels. We believe that this expression may be linked to genotoxic stress, hypoxia and re-oxygenation in tumors and therefore that CYAD-01 could potentially inhibit tumor growth by decreasing tumor vasculature, which enhances the activity through a virtuous circle of anoxia of tumor cells and increased ligand expression of tumor cells.

Preclinical studies also suggest that CYAD-01 is active without lymphodepletion conditioning, which is the destruction of lymphocytes and T-cells, normally by radiation. We believe this absence of a pre-

conditioning regimen may significantly expand the range of patients eligible for CAR T-cell treatment, reduce costs, reduce toxicity and thereby improve patient experience and acceptance.

No significant toxicology findings were reported from preclinical multiple-dose studies at dose levels below 10^7 CYAD-01 per animal. Some temporary weight loss was noted in animals treated with CYAD-01 at doses of $2x10^7$ per animal, a dose practically unattainable in human equivalents.

Clinical Development Program for CYAD-01

The CM-CS1 Phase 1 Clinical Trial

In December 2016, results from the first clinical trial of CYAD-01, called the CM-CS-1 trial, were presented at the American Society of Hematology, or ASH, Annual Meeting. The CM-CS-1 trial was a Phase 1 dose escalation clinical trial conducted at the Dana-Farber Cancer Institute in patients with AML and multiple myeloma, or MM. Patients received doses from 1×10^6 up to 3×10^7 CAR-T NKR-2 in a single intravenous injection. One AML patient treated with the highest dose level was observed to have normalized hematologic parameters for six months following treatment. No serious treatment-related adverse events were reported at the four doses tested in this trial, and signs of clinical activity were observed.

THINK Phase 1 Clinical Trial

Overview

In December 2016, we initiated the THINK (THerapeutic Immunotherapy with NKr-2) trial, a multinational (E.U./U.S.), open-label Phase 1 clinical trial to assess the safety and clinical activity of multiple administrations of CYAD-01 in seven metastatic tumor types, including five solid tumors (colorectal, ovarian, bladder, triple-negative breast and pancreatic cancers) and two hematological malignancies (AML and MM) in patients who did not respond to or relapsed after first and second line therapies. In the THINK trial, CYAD-01 is administered as a monotherapy in patients without chemotherapy preconditioning.

The trial contains two consecutive segments: a dose escalation segment with two arms (one in solid tumor types and one in hematological tumor types) at three dose levels adjusted to body weight (up to $3x10^8$, $1x10^9$ and $3x10^9$ CAR-T NKR-2 cells). At each dose, the patients are intended to receive three successive administrations of the specified dose, two weeks apart. In 2018, we made several amendments to the trial including: 1) as of dose level 2, patients were eligible for a second cycle of three injections in absence of progressive disease; 2) in the hematological malignancy portion of the trial, a more frequent dosing schedule of CYAD-01, referred to as schedule optimization, will assess six injections without preconditioning over two months of administration; and 3) in the solid tumor segment of the trial, treatment of CYAD-01 after non-myeloablative preconditioning chemotherapy regimen of cyclophosphamide and fludarabine will be assessed. As of December 31, 2018, a total of 35 patients had been treated in the dose-escalation Phase 1 study, including the aforementioned amended cohorts. The schedule optimization cohorts are ongoing and are expected to enroll a minimum of six patients, while the extension phase of the trial associated with the schedule optimization portion of the trial is planned to enroll up to 14 patients. The primary endpoint of the dose escalation segment of the trial is a safety endpoint—the occurrence of dose limiting toxicities in patients during the treatment until 14 days after the last treatment. The primary endpoint in the expansion segment is objective response rate.

Interim Clinical Data as of December 31, 2018

As of December 31, 2018, we had treated 35 patients with CYAD-01 drug product in the THINK trial. Patients have been treated at the third dose level in both the solid tumor and hematological malignancy cohort of the dose escalation part of the trial. We are currently enrolling patients for the third dose level phase in the hematological arm and we have completed the dose escalation portion in the solid tumor cohort. We are currently enrolling patients in the schedule optimization portion of the trial in the hematological malignancy arm of the trial. Of the 35 patients treated as of December 31, 2018, 31 were dosed at the per-protocol intended dose and four were treated at a dose lower than the per-protocol intended dose due to an inability to obtain sufficient cell numbers in the drug product using our prior manufacturing method. See "—Manufacturing" below.

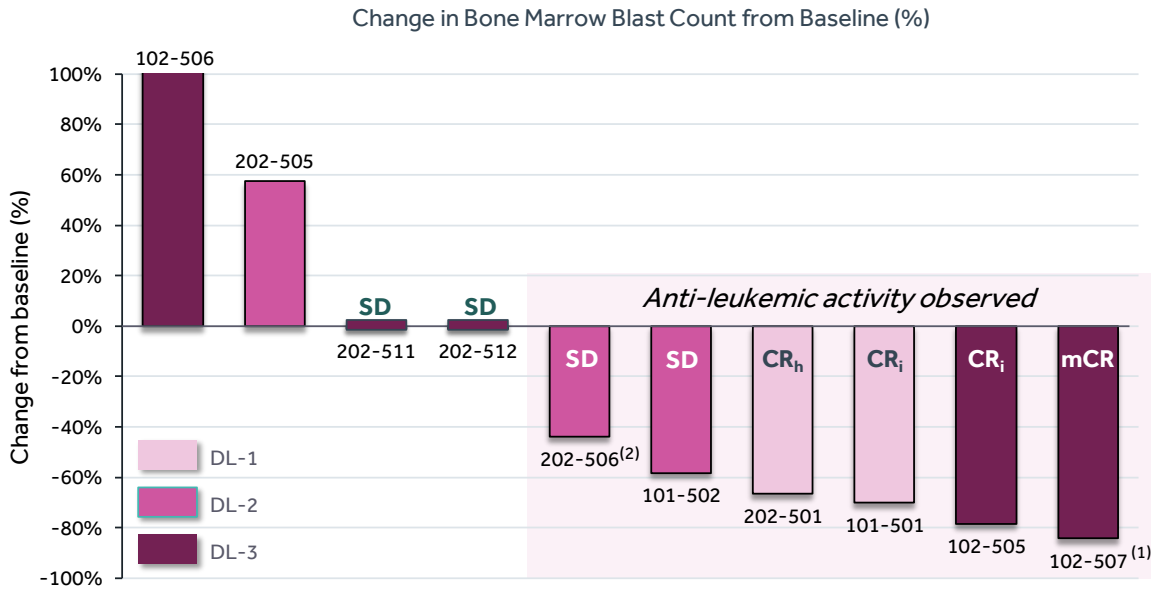
In patients treated with CYAD-01 at the per-protocol intended dose in the THINK trial we observed signs of clinical activity ranging from SD to CR. Signs of clinical activity were observed in patients with AML, Myelodysplastic syndrome (MDS), CRC and ovarian cancer. No signs of clinical activity were observed in patients treated with a dose lower than the per-protocol intended dose.

Based on the interim individual data of patients treated, we believe that preconditioning chemotherapy or concurrent treatment with chemotherapy may be beneficial in strengthening the responses seen to date, and we have initiated additional trials to further evaluate this approach in both hematological malignancies and solid tumors. See "—Additional Clinical Development for CYAD-01" below.

Hematological Malignancy Segment of the THINK Phase 1 Trial

In December 2018, at the 60th American Society of Hematology Annual Meeting we reported interim results from the hematological portion of the THINK Phase 1 trial. Data from 14 patients treated across all three dose levels showed that treatment with monotherapy CYAD-01 without preconditioning was well tolerated. Out of eight r/r AML patients evaluable per protocol (at least one cycle of treatment) in the dose escalation segment of the trial, five patients (62%) showed anti-leukemic activity with three out of eight patients (38%) exhibiting objective response. As of January 7, 2019, four out of 10 patients (40%) were reported to exhibit a complete response, defined as either a complete response with partial hematological recovery (CRh), complete response with incomplete marrow recovery (CRi) or marrow complete response (mCR). The r/r AML patient who achieved a CRh was bridged to allotransplant and remains in minimal residual disease negative complete response (CR_{MRD-}, defined as no detection of tumor cells by high sensitivity methods) for over 17 months.

Evidence of Complete Response in 40% of Relapsed/Refractory AML / MDS Patients with CYAD-01 Without Preconditioning Chemotherapy



CRh: Complete response with partial hematological recovery
CRi: Complete response with incomplete hematological recovery
mCR: Marrow complete response
CR (MRD-): Complete response without minimal residual disease
SD: Stable disease

Treatment Related Adverse Events in Hematological Malignancy Portion of THINK Trial as of December 31, 2018

	DL-1 $3x10^8$ N=6 (15 injections)			DL-2 $1x10^9$ N=3 (12 injections)			DL-3 $3x10^9$ N=5 (11 injections)		
	All Grades	Grade 3	Grade 4	All Grades	Grade 3	Grade 4	All Grades	Grade 3	Grade 4
Adverse Event (AE) Prefered Term									
Total pts with at least ≥ 1 related AE (%)	6 (100)	—	1 (16.7)	3 (100)	2 (66.7)	—	5 (100)	—	3 (60.0)
Cytokine release syndrome (CRS)	1 (16.7)	—	—	2 (66.7)	2 (66.7)	—	3 (60.0)	—	1 (20.0)
Pyrexia	3 (50.0)	—	—	3 (100)	—	—	2 (40.0)	—	—
Chills	1 (16.7)	—	—	—	—	—	—	—	—
Hypoxia	1 (16.7)	—	1 (16.7)	3 (100)	—	—	2 (40.0)	—	—
Pneumonitis	1 (16.7)	—	1 (16.7)	—	—	—	—	—	—
Dyspnoea	—	—	—	1 (33.3)	—	—	—	—	—
Bronchial hyperreactivity	—	—	—	—	—	—	1 (20.0)	—	—
Tachycardia	—	—	—	—	—	—	2 (40.0)	—	—
Hypotension	—	—	—	2 (66.7)	—	—	2 (40.0)	—	—
Fatigue	2 (33.3)	—	—	—	—	—	—	—	—
Nausea	2 (33.3)	—	—	—	—	—	—	—	—
Vomiting	1 (16.7)	—	—	—	—	—	—	—	—
Diarrhoea	1 (16.7)	—	—	—	—	—	—	—	—
Decreased appetite	1 (16.7)	—	—	—	—	—	—	—	—
Weight increased	—	—	—	—	—	—	1 (20.0)	—	—
Peripheral swelling	1 (16.7)	—	—	—	—	—	—	—	—
Infusion related reaction	1 (16.7)	—	—	—	—	—	—	—	—
Dizziness	—	—	—	1 (33.3)	—	—	—	—	—
Bone pain	1 (16.7)	—	—	—	—	—	—	—	—
C-reactive protein increased	—	—	—	—	—	—	1 (20.0)	—	—
Anaemia	—	—	—	1 (33.3)	—	—	—	—	—
Leukocytosis	—	—	—	—	—	—	1 (20.0)	—	—
Lymphopenia	1 (16.7)	—	1 (16.7)	—	—	—	1 (20.0)	—	1 (20.0)
Thrombocytopenia	—	—	—	1 (33.3)	1 (33.3)	—	1 (20.0)	—	1 (20.0)

Solid Tumor Segment of the THINK Phase 1 Trial

In November 2018, at the Society for Immunotherapy of Cancer (SITC) 33rd Annual Meeting we reported results from the solid tumor portion trial. Data from 14 patients treated across all three dose levels showed that treatment with monotherapy CYAD-01 without preconditioning was well tolerated. Out of eleven patients with mCRC evaluable per protocol (at least one cycle of treatment) in the dose escalation segment of the trial, the best clinical response observed was stable disease in three patients (27%) based on RECIST 1.1 criteria. In addition, one patient with ovarian cancer treated at dose level 2 also experienced a stable disease.

In February 2018, the THINK trial was amended to include a cohort known as THINK CyFlu. The cohort is evaluating 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.

As of the date of this registration document, treatment with CYAD-01 following the standard preconditioning regimen of CyFlu was well tolerated with no occurrence of DLT nor an increase of treatment-related AEs rate. Tumorassessment for the THINK CyFlu cohort of the trial has yet to be reported.

Treatment Related Adverse Events in Solid Tumor Portion of THINK Trial as of December 31, 2018

	THINK without preconditioning									THINK CyFlu with preconditioning		
	DL-1 $3x10^8$ N=4			DL-2 $1x10^9$ N=4			DL-3 $3x10^9$ N=6			$3x10^8$ N=2		
	All grades	Grade 3	Grade 4	All grades	Grade 3	Grade 4	All grades	Grade 3	Grade 4	All grades	Grade 3	Grade 4
Adverse Event (AE) Preferred Term												
Total pts with at least ≥1 related AE (%) *	**4 (100)**	**1 (25.0)**	**—**	**4 (100)**	**1 (25.0)**	**—**	**5 (83.3)**	**2 (33.3)**	**1 (16.7)**	**2 (100)**	**—**	**—**
Cytokine release syndrome (CRS)	—	—	—	3 (75.0)	1 (25.0)	—	4 (66.7)	—	1 (16.7)	2 (100)	—	—
Pyrexia	3 (75.0)	—	—	2 (50.0)	—	—	1 (16.7)	—	—	2 (100)	—	—
Chills	1 (25.0)	1 (25.0)	—	—	—	—	1 (16.7)	—	—	1 (50)	—	—
Infusion related reaction	1 (25.0)	—	—	—	—	—	—	—	—	—	—	—
Hot flush	1 (25.0)	—	—	—	—	—	1 (16.7)	—	—	—	—	—
Headache	1 (25.0)	—	—	—	—	—	2 (33.3)	—	—	—	—	—
Dyspnoea	—	—	—	1 (25.0)	—	—	1 (16.7)	1 (16.7)	—	—	—	—
Acute respiratory distress syndrome	—	—	—	—	—	—	1 (16.7)	—	1 (16.7)	—	—	—
Vomiting	2 (50.0)	—	—	—	—	—	—	—	—	1 (50)	—	—
Nausea	2 (50.0)	—	—	1 (25.0)	—	—	1 (16.7)	—	—	1 (50)	—	—
Decreased appetite	1 (25.0)	—	—	2 (50.0)	—	—	—	—	—	—	—	—
Fatigue	4 (100)	—	—	1 (25.0)	—	—	2 (33.3)	—	—	—	—	—
Myalgia	—	—	—	1 (25.0)	—	—	1 (16.7)	—	—	—	—	—
Blood pressure decreased	—	—	—	—	—	—	1 (16.7)	—	—	1(50.0)	—	—
Dry mouth	1 (25.0)	—	—	—	—	—	—	—	—	—	—	—
Erythema	1 (25.0)	—	—	—	—	—	—	—	—	—	—	—
Anaemia	—	—	—	—	—	—	—	—	—	—	—	—
Alanine aminotransferase increased	—	—	—	—	—	—	1 (16.7)	1 (16.7)	—	—	—	—
Lymphocyte count decreased	—	—	—	—	—	—	1 (16.7)	—	1 (16.7)	—	—	—

Nature of Interim Data

It should be noted that the interim data summarized above are current as of December 31, 2018 and are preliminary in nature. As of the date of this registration document, our THINK trial is not yet complete.

Additional Clinical Development for CYAD-01

AML Clinical Development Program

AML is one of the deadliest cancers in hematological malignancies, with a five-year survival rate of 27.4%. Currently the only available potentially curative therapy for AML is allogenic HSCT. However, this approach has significant limitations, including difficulties in finding appropriate genetically-matched donors and the risk of transplant-related rejection, graft-versus-host disease, or GVHD, and mortality, and is therefore typically only available on a limited basis. First line therapies can result in a

complete response, but the risk of relapse is high. Until 2017, there were no therapies approved by the U.S. Food and Drug Administration, or FDA, for relapsed refractory patients. Based on data from the National Cancer Institute (NCI), the incidence of AML in the United States was approximately 19,520 new cases in 2018.

In December 2018, we announced that we will continue to enroll patients in the amended cohorts of the hematological malignancy arm of the THINK trial to evaluate the schedule optimization portion of the trial (cohorts 10 and 11) for the treatment of r/r AML. Based on the encouraging interim results of the THINK trial, we are currently exploring and intend to further explore the administration of CYAD-01 in AML and MDS patients.

DEPLETHINK Phase 1 Clinical Trial

In October 2018, we initiated a new Phase 1 clinical trial in AML and MDS patients that will evaluate the administration of CYAD-01 after patients have undergone a conventional chemotherapy preconditioning program, which is intended to provide an environment for the engineered T cells to thrive, and could result in a higher rate of objective response. However, because chemotherapy preconditioning can lead to undesirable side effects, we expect that a proper risk-benefit ratio will be considered and contrasted with a monotherapy approach as we progress this program into later stages of clinical development.

The trial, referred to as DEPLETHINK (LymphoDEPLEtion and THerapeutic Immunotherapy With NKR-2) was initiated in October 2018. The open-label, dose-escalation trial will evaluate a single injection of CYAD-01 following treatment with the standard low-intensity preconditioning regimen of cyclophosphamide (300 mg/m²) and fludarabine (30 mg/m²), or CyFlu. The trial includes two different intervals between lymphodepletion and administration of CYAD-01. In addition, the trial will evaluate two dose levels of CYAD-01 including 100 million and 300 million cells per injection, respectively. Following disease assessment at day 35, patients presenting no signs of progression are eligible to receive a cycle of three CYAD-01 injections without preconditioning with two-week intervals at their initial dose levels. The study will enroll up to 21 patients (dose escalation and expansion phases). The primary endpoint of the trial is safety and secondary endpoints include clinical activity and pharmacokinetics.

In December 2018, we reported initial data from the first cohort of the trial, in which the administration of CYAD-01 following the preconditioning regimen of cyclophosphamide and fludarabine was well-tolerated, with no dose-limiting toxicity or treatment-related grade 3 or above adverse events observed. Based on these preliminary safety data, enrollment has been initiated in the second cohort of the trial. As of the date of this registration document we have added a fourth cohort to the trial which will evaluate a single administration of 1 billion cells per injection.

CRC Clinical Development Program

CRC is the third most diagnosed cancer and the second in terms of deaths. The median progression free survival rate of patients treated with the current standards of care (regorafinib or trifluridine/tipiracil) is between 1.9 and 3.2 months. We estimate the incidence of CRC in the United States is approximately 134,000 new cases per year.

Based on the encouraging interim results of the THINK trial, we are currently exploring the administration of CYAD-01 in CRC patients.

SHRINK Phase 1 Clinical Trial

In May 2018, we enrolled our first patient into the dose-escalation Phase 1 SHRINK (Standard cHemotherapy Regimen and Immunotherapyy with NKR-2) trial. SHRINK is designed to assess the safety and clinical activity of multiple administrations of CYAD-01 concurrently with a conventional chemotherapy for CRC called FOLFOX (a combination of 5-fluorouracil, leucovorin and oxaliplatin) as first line therapy, with the goal of reducing liver metastasis and allowing for surgical resection. 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. The trial will enroll up to 36 patients (dose escalation and expansion phases). This trial is being conducted outside the United States and is currently open for enrollment.

As of the date of this registration document, interim results from the first cohort of patients based on response evaluation criteria in solid tumors (RECIST) from dose level 1 of the trial confirmed one patient achieved a partial response and two patients experienced disease stabilization. In addition, concurrent treatment of CYAD-01 with FOLFOX chemotherapy appears to be well tolerated, with no occurrence of SAEs nor increase in treatment-related AEs rate.

LINK Phase 1 Clinical Trial

In July 2017, we initiated the LINK trial (Locoregional Immunotherapy with NKR-2), a Phase 1 trial designed to assess the safety and clinical activity of multiple administrations of CYAD-01 in the hepatic artery in CRC patients with primarily liver metastasis. Following a strategic review of the CYAD-01 program in CRC, we have decided to stop enrollment of the LINK trial in January 2019.

EPITHINK Phase 1 Clinical Trial

The EPITHINK Phase 1 dose-escalation trial planned to assess the administration of CYAD-01 concurrently with 5-azacytidine in treatment-naïve and/or elderly AML patients ineligible for intensive treatment. Based on the data generated to date for CYAD-01 from the THINK trial and the recent update in the treatment landscape for newly diagnosed AML patients, the Company has put the EPITHINK trial on hold to focus its efforts on the development of CYAD-01 for the treatment of r/r AML patients. Celyad plans to reassess the opportunity for CYAD-01 in newly diagnosed AML patients after the optimal treatment design for the therapy is determined.

SIBLINK Phase 1 Clinical Trial

The SIBLINK Phase 1 trial was anticipated to enter the clinic in 2018. The open-label dose escalation trial planned to evaluate multiple administrations of CYAD-01 in patients with relapsing AML post allogeneic hemopoietic cell transplantation. In 2018, the Company decided to put the SIBLINK trial on hold.

Next-Generation, Autologous, Preclinical NKG2D-based CAR-Ts

Over the past year we have continued to explore opportunities to enhance the characteristics of CYAD-01, including increasing the persistence of the product candidate as well as the product candidate's ability to infiltrate the tumor and combat the hostile tumor microenvironment. This has led to the preclinical candidates CYAD-02 and CYAD-03. CYAD-2 includes the addition of a short hairpin RNA to target NKG2D ligand MICA and MICB, while CYAD-03 incorporates cytokines to the NKG2D-based CAR-T. We continue to further evaluate these preclinical candidates through 2019, which could lead to potential IND filings over the next 12 to 18 months.

Allogenic Platform—TCR Inhibiting Molecule (TIM)

While autologous CAR-T cells have yielded impressive results in B cell malignancies, addressing larger indications such as CRC using the current centralized manufacturing paradigm may be more challenging, at least from a cost and logistical perspective. However, we believe that an allogeneic approach must address two key challenges: (1) graft versus host disease (GvHD) which is the rejection of the patient tissues by the grafted cells, and (2) rejection of the graft by the host immune system, or transplant rejection. GvHD is mediated by the T Cell Receptor (TCR) complex on T lymphocytes. We have developed a method to interfere with the TCR signaling through the expression of a TCR Inhibiting Molecule (TIM). In preclinical mouse models, we observed that mice treated with TIM transduced T cells did not demonstrate GvHD, while 80% of the animals treated with control T cells died from GvHD within a 50-day window. In addition, we demonstrated in a similar mouse model bearing a colorectal cancer that the antitumor activity of CYAD-101 (the allogeneic version of our CYAD-01 drug product candidate) is maintained.

Clinical Development Program for CYAD-101

Background on CYAD-101

CYAD-101 is an investigational, non-gene edited, allogeneic (donor derived) CAR-T therapy that co-expresses the chimeric antigen receptor NKG2D found in our CYAD-01 clinical candidate with the novel inhibitory peptide TIM (T cell receptor [TCR] Inhibiting Molecule). TCR signaling is responsible for Graft versus Host Disease (GvHD) and the expression of TIM reduces signaling of the TCR complex and could therefore reduce or eliminate GvHD in patients treated with CYAD-101.

alloSHRINK Phase 1 Clinical Trial

In July 2018, the U.S. Food and Drug Administration (FDA) accepted the Investigational New Drug (IND) application for CYAD-101. In November 2018, we initiated the open-label, dose-escalation, Phase 1 alloSHRINK trial evaluating our non-gene edited allogeneic CAR-T product candidate, CYAD-101, administered concurrently with FOLFOX chemotherapy in the treatment of patients with unresectable metastatic CRC. Patients will receive six cycles of FOLFOX chemotherapy every two weeks and three administrations of CYAD-101 every two weeks 48 hours after the initiation of chemotherapy cycles one, two and three. The three dose levels to be evaluated are 100 million, 300 million and 1 billion cells per injection, respectively. The Phase I dose-escalation segment will enroll a maximum of 18 patients. The primary endpoint of the study is safety and tolerability.

Allogenic Platform—short hairpin RNA (shRNA)

In October 2018, we announced an exclusive agreement with Horizon Discovery Group plc for the use of its shRNA technology, referred to as SMARTvector, to generate the Company's second non-gene-edited allogeneic platform. Utilizing the SMARTvector technology we have developed a method to interfere with the TCR signaling through the expression of a single shRNA targeting the CD3ζ domain of the TCR complex. In preclinical models, we observed shRNA targeting of the CD3ζ leads to a reduction of the TCR expression at the cell surface and a decrease in cytokine response following a TCR stimulation. In addition, *in vivo* data demonstrate that shRNA targeting of CD3ζ effectively protects against GvHD to a level equivalent to CRISPR-Cas9 based knock-out. Furthermore, results from preclinical tests show significant increase in persistence of allogeneic T cells using shRNA targeting when compared to gene editing technologies, such as CRISPR-Cas9.

Preclinical Development Program for CYAD-200 Series

As of the date of this registration document, we plan to explore several preclinical, non-gene edited allogeneic CAR-T candidates from our CYAD-200 series which will couple shRNA targeting of the CD3ζ domain of the TCR complex with CAR. These include:

- CYAD-211: B-cell maturation antigen (BCMA) targeting CAR-T therapy for the treatment of multiple myeloma
- CYAD-221: CD19 targeting CAR-T therapy for the treatment of B-cell malignancies
- CYAD-231: Dual specific CAR-T targeting NKG2D and an undisclosed membrane protein

We anticipate the first of these preclinical candidates will enter the clinic in mid-2020.

Seasonality

Our business is currently not materially affected by seasonality.

Manufacturing

We recently modified the manufacturing process we use to produce our CYAD-01 drug product candidate, in order to significantly increase the yield of T cell expansion in the drug product candidate we produce, while at the same time aiming to reduce process complexity and cost.

Until late 2017, our CYAD-01 drug product candidate was manufactured using a process, which we refer to as the LY process, intended to reduce the co-expression of NKG2D and stress ligands induced by the manufacturing process. However, this reduction of the co-expression was not sufficient, especially at higher doses, and yielded a higher than anticipated fratricide effect; that is, the expressed T cells in the drug product candidate would kill each other or kill themselves. As a result, the LY process failed to consistently produce the required number of T cells in the drug product candidate, resulting in some cases in our inability to manufacture drug product candidate consistent with the protocol for our THINK trial. All 15 patients treated in the THINK trial as of December 31, 2017 were treated with drug product manufactured using the LY process. Of these 15 patients, 10 were dosed at the per-protocol intended dose and five were treated at a dose lower than the per-protocol intended dose due to our inability to obtain sufficient cell numbers in the drug product candidate using this manufacturing method.

In response to these manufacturing challenges, we modified the manufacturing process to include a monoclonal antibody (mAb) that inhibits NKG2D expression on the T cell surface during production. This method has the potential to yield significantly higher cell numbers than the LY process. We have evaluated this new manufacturing process, which we refer to as the mAb process, in both *in vivo* and *ex vivo* models, in order to demonstrate reproducibility and comparability, and our THINK protocol has been amended for this new approach.

The first patient in our THINK trial to be administered drug product candidate manufactured using the mAb process was treated in late January 2018. Throughout 2018, all patients treated with CYAD-01 were administered drug product candidate manufactured using the mAb process and no critical safety issues related to the cell therapy have been reported. There can be no assurance that drug product candidate manufactured using the mAb process will have similar or improved safety and clinical activity compared to drug product candidate manufactured using the LY manufacturing process.

In addition, we are seeking to develop an automated and closed system to manufacture our cells, with minimal human interactions, with a goal of further reducing manufacturing costs, minimizing operator errors and allowing the manufacturing process to be run in lower grades or classified manufacturing space. This concept could potentially be deployed as a point-of-care manufacturing system in the future.

Termination of C-Cure and Heart-Xs Programs

Until mid-2016, we were focused on the development of a cardiovascular drug product candidate called C-Cure, an autologous cell therapy for the treatment of patients with ischemic heart failure. This program was funded in part through various research programs from the Walloon Region of Belgium. In June 2016, we reported topline results from a Phase 3 clinical trial for this drug product candidate. Following the announcement of these results, we explored strategic options to further develop and commercialize C-Cure, while we focused on our CAR-T oncology drug product candidates. In December 2017, we elected to shelve this program, as a result of which the research data and intellectual property rights associated with this development program were transferred to the Walloon Region which partially financed the C-Cure program.

Also in December 2017, our board of Directors decided to pause the development of the Heart-Xs platform. The Heart-Xs platform relates to methods for the insertion of medical instruments through a thoracic passage into an atrium of the heart, particularly the left atrium. Catheters or other instruments dedicated to performing required cardiac maneuvers are passed through an introductory sheath having a distal end disposed within the targeted atrium. Upon completion of the required cardiac maneuvers the instruments are removed from the atrium and a closure assembly is passed through the introductory sheath to close the entry site, formed in the pericardium and corresponding atrium wall, to facilitate healing thereof. The introductory assembly and method has as advantage that it facilitates the concurrent, operative disposition of several catheters or other instruments into the interior of the selected atrium through different thoracic passages and entry sites, thereby allowing synergistic interaction between the multiple catheters in the performance of the required cardiac maneuvers.

7.4. Principal markets on which the Company competes

The market sizes the Company is targeting are determined by the patient population enrolled in its clinical trials. Currently, the Company is targeting relapsed or refractory (r/r) AML patients in the THINK and DEPLETHINK trials with CYAD-01. Overall, in aggregate (between USA and top 5 EU countries) there are approximately 17,500 new cases per year of r/r AML addressable by CYAD-01

based on the THINK/DEPLETHINK trials. In the context of metastatic CRC, the Company is targeting first line metastatic CRC patient with CYAD-01 in the SHRINK trial and r/r patients with CYAD-101 in the alloSHRINK trial. Overall, in aggregate (between USA and top 5 EU countries), there are approximately 225,000 and 50,000 new cases every year in the first line and r/r metastatic CRC patient populations, respectively.

7.5. Licensing and Collaboration Agreements

Dartmouth College and Celdara

Background

In January 2015, we entered into a stock purchase agreement with Celdara Medical, LLC, or Celdara, pursuant to which we purchased all of the outstanding membership interests of OnCyte, LLC, or OnCyte. In connection with this transaction, we, Celdara and OnCyte entered into an asset purchase agreement pursuant to which Celdara sold to OnCyte certain data, protocols, regulatory documents and intellectual property, including the rights and obligations under two license agreements between OnCyte and Dartmouth College, or Dartmouth, related to our CAR-T development programs. In connection with the asset purchase agreement, OnCyte and Celdara entered into a services agreement under which Celdara provided certain development activities related to the development of CAR-T products.

Amended Asset Purchase Agreement

On August 3, 2017, we, Celdara and OnCyte, our wholly-owned subsidiary, entered into an amendment to the asset purchase agreement described above. In connection with the amendment, the following payments were made to Celdara: (i) an amount in cash equal to $10.5 million, (ii) newly issued shares of Celyad valued at $12.5 million, (iii) an amount in cash equal to $6.0 million in full satisfaction of any payments owed to Celdara in connection with a clinical milestone related to our CAR-T NKR-2 product candidate, (iv) an amount in cash equal to $0.6 million in full satisfaction of any payments owed to Celdara in connection with our license agreement with Novartis International Pharmaceutical Ltd., and (v) an amount in cash equal to $0.9 million in full satisfaction of any payments owed to Celdara in connection with our license agreement with Ono Pharmaceutical Co., Ltd.

Under the amended asset purchase agreement, OnCyte is obligated to make certain development-based milestone payments to Celdara up to $40.0 million for our clinical-stage product candidate (using autologous NKR-2 T-cells), the first product candidate in the first of four defined product groups. We are also obligated to make certain development-based milestone payments up to $36.5 million for the first product candidate in one of three additional defined preclinical-stage product groups. Under the prior agreement these payments were payable once per licensed product whereas under the amended asset purchase agreement these payments are now payable for the first CAR-T product in each of these four defined CAR-T product groups. We are also obligated to make sales-based milestone payments up to $76.0 million for the first CAR-T product in the first of the four defined CAR-T product groups and up to $80.0 million for the first CAR-T product in the next three defined CAR-T product groups. Under the amended asset purchase agreement, OnCyte is required to make tiered single-digit royalty payments to Celdara in connection with the sales of CAR-T products within each of the four defined CAR-T product groups, subject to reduction in countries in which there is no patent coverage for the applicable product or in the event OnCyte is required to secure licenses from third parties to commercialize the applicable product. Such royalties are payable on a product-by-product and country-by-country basis until the later of (i) the last day that at least one valid patent claim covering the applicable product exists,

or (ii) the tenth anniversary of the day of the first commercial sale of the applicable product in such country.

Under the amended asset purchase agreement, in lieu of royalties previously payable on sales by sublicensees, OnCyte is now required to pay Celdara a percentage of sublicense income, including royalty payments, for each sublicense ranging from the mid-single digits to the mid-twenties, depending on which of a specified list of clinical and regulatory milestones the applicable product has achieved at the time the sublicense is executed. These percentages will be applied on a product-by-product basis to each payment included within sublicense income that is attributable to the grant of rights in, or the achievement of a milestone with respect to a specific product that is subject to, such sublicense. Under the amended asset purchase agreement, OnCyte is required to pay Celdara a single-digit percentage of any research and development funding received by OnCyte for each of the four defined CAR-T product groups, not to exceed $7.5 million for each product group. We can opt out of the development of any product if the data does not meet the scientific criteria of success. We may also opt out of development of any product for any other reason upon payment of a termination fee of $2.0 million to Celdara.

In connection with the amended asset purchase agreement, OnCyte and Celdara terminated the services agreement related to certain development activities related to the development of CAR-T products in consideration of a cash payment to Celdara in the amount of $0.9 million out of the $1.8 million remaining contractual amount.

Amended Dartmouth License

As described above, as a result of our acquisition of all of the outstanding membership interests of OnCyte and the asset purchase agreement among us, Celdara and OnCyte, OnCyte became our wholly-owned subsidiary and acquired certain data, protocols, regulatory documents and intellectual property, including the rights and obligations under two license agreements between OnCyte and Dartmouth. The first of these two license agreements concerned patent rights related, in part, to methods for treating cancer involving chimeric NK and NKP30 receptor targeted therapeutics and T cell receptor-deficient T cell compositions in treating tumor, infection, GVHD, transplant and radiation sickness, or the CAR-T License, and the second of these two license agreements concerned patent rights related, in part, to anti-B7-H6 antibody, fusion proteins and methods of using the same, or the B7H6 License. On August 2, 2017, OnCyte and Dartmouth entered into an amendment agreement in order to combine OnCyte's rights under B7H6 Agreement with OnCyte's rights under the CAR-T License, resulting in the termination of the B7H6 License, and in order to make certain other changes to the agreement. In connection with the amendment, OnCyte paid Dartmouth a non-refundable, non-creditable amendment fee in the amount of $2.0 million, charged to the income statement of 2017 as part of the costs of the amendments of the Celdara Medical and Dartmouth College agreements.

Under the amended license agreement, Dartmouth granted OnCyte an exclusive, worldwide, royalty-bearing license to certain know-how and patent rights to make, have made, use, offer for sale, sell, import and commercialize any product or process for human therapeutics, the manufacture, use or sale of which, is covered by such patent rights or any platform product. Dartmouth reserves the right to use the licensed patent rights and licensed know-how, in the same field, for education and research purposes only. The patent rights included in the amended license agreement also include the patents previously covered by the B7H6 License.

In consideration for the rights granted to us under the amended license agreement, OnCyte is required to pay to Dartmouth an annual license fee as well as a low single-digit royalty based on annual net sales of the licensed products by OnCyte, with certain minimum net sales obligations beginning April 30,

2024 and continuing for each year of sales thereafter. Under the amended license agreement, in lieu of royalties previously payable on sales by sublicensees, OnCyte is now required to pay Dartmouth a percentage of sublicense income, including royalty payments, (i) for each product sublicense ranging from the mid-single digits to low-single digits, depending on which of a specified list of clinical and regulatory milestones the applicable product has achieved at the time the sublicense is executed and (ii) for each platform sublicense in the mid-single digits. These percentages will be applied on a product-by-product basis to each payment included within sublicense income that is attributable to the grant of rights in, or the achievement of a milestone with respect to a specific product that is subject to, such sublicense. Additionally, the agreement requires that OnCyte exploit the licensed products, and OnCyte has agreed to meet certain developmental and regulatory milestones. Upon successful completion of such milestones, OnCyte is obligated to pay to Dartmouth certain clinical and regulatory milestone payments up to an aggregate amount of $1.5 million and a commercial milestone payment in the amount of $4.0 million. We are responsible for all expenses in connection with the preparation, filing, prosecution and maintenance of the patents covered under the agreement.

After April 30, 2024, Dartmouth may terminate the amended license if OnCyte fails to meet the specified minimum net sales obligations for any year, unless OnCyte pays to Dartmouth the royalty OnCyte would otherwise be obligated to pay had OnCyte met such minimum net sales obligation. Dartmouth may also terminate the license if OnCyte fails to meet a milestone within the specified time period, unless OnCyte pays the corresponding milestone payment. Either party may terminate the agreement in the event the other party defaults or breaches any of the provisions of the agreement, subject to 30 days' prior notice and opportunity to cure. In addition, the agreement automatically terminates in the event OnCyte becomes insolvent, make an assignment for the benefit of creditors or file, or have filed against us, a petition in bankruptcy. Absent early termination, the agreement will continue until the expiration date of the last to expire patent right included under the agreement in the last to expire territory. We expect that the last to expire patent right included under this agreement will expire in 2033, absent extensions or adjustments.

Dissolution of OnCyte

In March 2018, we dissolved and wound up the affairs of our wholly owned subsidiary OnCyte, LLC, or OnCyte, pursuant to the Delaware Limited Liability Company Act. As a result of the dissolution of OnCyte, all the assets and liabilities of OnCyte, including the contingent consideration payable and our license agreement with Dartmouth College, were fully distributed to and assumed by Celyad SA. Celyad SA will continue to carry out the business and obligations of OnCyte, including under our license agreement with Dartmouth College.

ONO Pharmaceuticals

On July 11, 2016, we entered into a license and collaboration agreement, or the License and Collaboration Agreement, with ONO Pharmaceuticals Co., Ltd., or ONO, in connection with which we granted ONO an exclusive license for the development, manufacture and commercialization of allogenic products incorporating our NKR-T cell technology in Japan, Korea and Taiwan. Under the terms of the collaboration, ONO is solely responsible for and bears all costs incurred in the research, development and commercialization of such products in its geographies. In addition, we granted ONO an exclusive option to obtain an exclusive license to develop, manufacture and commercialize autologous products incorporating our autologous CAR-T NKR-2 cell technology in Japan, Korea and Taiwan.

On November 27, 2018, Ono Pharmaceuticals Co., Ltd. notified us of its decision to terminate the License and Collaboration Agreement.

Novartis

In May 2017, we announced that we had entered into a non-exclusive license agreement with Novartis International AG, or Novartis, regarding U.S. patents related to allogeneic CAR-T cells. The agreement includes our intellectual property rights under U.S. Patent No. 9,181,527. This agreement is related to two undisclosed targets currently under development by Novartis. Under the terms of the agreement, we received an upfront payment of $4 million and is eligible to receive additional milestone payments in aggregate amounts of up to $92 million. In addition, we are eligible to receive royalties based on net sales of the licensed target associated products at percentages in the single digits. We retain all rights to grant further licenses to third parties for the use of allogeneic CAR-T cells.

Horizon Discovery Group

In 2018, we signed exclusive agreements with Horizon Discovery Group plc, for the use of its shRNA technology to generate our second non-gene-edited allogeneic platform. Data from preclinical studies have demonstrated the versatility of the shRNA platform in the allogeneic setting and may pave the way for the next steps in the development of our differentiated non-gene-edited allogeneic approach to CAR-T cell therapy.

7.6. Intellectual Property

Patents and Patent Applications

Patents, patent applications and other intellectual property rights are important in the sector in which we operate. We consider on a case-by-case basis filing patent applications with a view to protecting certain innovative products, processes, and methods of treatment. We may also license or acquire rights to patents, patent applications or other intellectual property rights owned by third parties, academic partners or commercial companies which are of interest to us.

Our patent portfolio includes pending patent applications and issued patents in the United States and in foreign countries.

The term of a U.S. patent may be eligible for patent term extension under the Hatch-Waxman Act to account for at least some of the time the drug or device is under development and regulatory review after the patent is granted. With regard to a drug or device for which FDA approval is the first permitted marketing of the active ingredient, the Hatch-Waxman Act allows for extension of the term of one U.S. patent. The extended patent term cannot exceed the shorter of five years beyond the non-extended expiration of the patent or 14 years from the date of the FDA approval of the drug or device. Some foreign jurisdictions have analogous patent term extension provisions that allow for extension of the term of a patent that covers a device approved by the applicable foreign regulatory agency.

NKR-T Cell Platform Patents

As of February 28, 2019, our CAR T-cell portfolio includes four patent families exclusively licensed to us by Dartmouth. This portfolio includes eleven issued U.S. patents; eight pending U.S. patent applications; and 13 foreign patent applications pending in jurisdictions including Australia, Brazil, Canada, China, Europe, Hong Kong, India, Japan, Mexico and Russia. These patents and patent applications relate to specific chimeric antigen receptors and to T-cell receptor deficient T-cells, and are further detailed below.

A first patent family relates to chimeric NK receptors and methods for treating cancer. There are two granted U.S. patents in this family (US 7,994,298 and US 8,252,914) and a further pending US application. The scope of this patent family includes chimeric natural killer cell receptors (NKR CARs), T-cells with such receptors (NKR CAR-T cells) and methods of treating cancer with these NKR CAR-T cells.

A second patent family is entitled "NKp30 receptor targeted therapeutics" and describes a specific NKR CAR based on the NKp30 receptor. One U.S. patent is granted (US 9,833,476) and there is a further U.S. application pending.

A third family relates to an anti-B7H6 antibody, CARs and BiTE molecules containing the antibody; to CAR-T cells; and methods of treating cancer with the CAR-T cells. One U.S. patent is granted (US9,790,278), and applications are pending in China, Europe, Japan and the United States.

A fourth patent family relates to T-cell receptor-deficient compositions. T-cell receptor, or TCR, deficient human T-cells could be particularly useful to generate allogeneic CAR-T cells. The family includes members that relate to the concept (irrespective of the way the T-cell is made TCR deficient), as well as members describing specific ways of making the cells TCR deficient. There are seven granted U.S. patents in this family (US 9,181,527;US 9,273,283; US9,663,763; US9,822,340; US9,821,011; US 9,938,497; and US 9,957,480), as well as five further pending US applications and ten applications in other jurisdictions.

Trade Secrets

In addition to our patents and patent applications, we keep certain of our proprietary information as trade secrets, which we seek to protect by confidentiality agreements with our employees and third parties, and by fragmenting know-how between different individuals, in accordance with standard industry practices.

7.7. Competition

The industry in which we operate is subject to rapid technological change. We face competition from pharmaceutical, biopharmaceutical and medical devices companies, as well as from academic and research institutions. Some of these competitors are pursuing the development of medicinal products and other therapies that target the same diseases and conditions that we are targeting.

Some of our current or potential competitors, either alone or with their collaboration partners, have significantly greater financial resources and expertise in research and development, manufacturing, preclinical testing, conducting clinical trials and marketing approved products than we do. Mergers and acquisitions in the pharmaceutical, biotechnology and gene therapy industries may result in even more resources being concentrated among a smaller number of our competitors. Smaller or early-stage companies may also prove to be significant competitors, particularly through collaborative arrangements with large and established companies. These competitors also compete with us in recruiting and retaining qualified scientific and management personnel and establishing clinical trial sites and patient registration for clinical trials, as well as in acquiring technologies complementary to, or necessary for, our programs.

Our commercial opportunity could be reduced or eliminated if our competitors develop and commercialize products that are safer, more effective, have fewer or less severe side effects, are more

convenient or are less expensive than any products that we may develop. Our competitors also may obtain FDA or other regulatory approval for their products more rapidly than we may obtain approval for ours, which could result in our competitors establishing a strong market position before we are able to enter the market. The key competitive factors affecting the success of all of our programs are likely to be their efficacy, safety and convenience.

Many of our competitors have substantially greater financial, technical and other resources.

For a breakdown of our total revenues by activity and geographic market, please see "section 12.4.5—Operating segment information" of this registration document.

CAR T-Cell Therapy

Early results from clinical trials have fueled continued interest in CAR T-cell therapies and our competitors as of the date of this registration document include Adaptimmune Therapeutics plc, Allogene Therapeutics Inc., Atara Biotherapeutics, Inc., Autolus Therapeutics plc, Bellicum Pharmaceuticals, Inc., bluebird bio, Inc., Celgene Corporation, Cellectis S.A., Cellular Biomedicine Group, Fate Therapeutics, Inc., CRISPR Therapeutics, Inc., Gilead Sciences Inc, Legend Biotech USA, Inc., Mustang Bio, Inc., NantKwest, Inc., Nkarta Therapeutics, Inc., Novartis AG, Poseida Therapeutics, Inc., Precigen, Inc. Precision Biosciences, Inc., Servier Laboratories Limited, TCR^2 Therapeutics, Inc., Unum Therapeutics, Inc., and Ziopharm Oncology, Inc.

7.8. Government Regulation

U.S. Regulation

Government authorities in the United States at the federal, state and local level and in other countries extensively regulate, among other things, the research, development, testing, manufacture, quality control, approval, labeling, packaging, storage, record-keeping, promotion, advertising, distribution, post-approval monitoring and reporting, marketing and export and import of drug and biological products, or biologics, such as our drug product candidates. Generally, before a new drug or biologic can be marketed, considerable data demonstrating its quality, safety and efficacy must be obtained, organized into a format specific for each regulatory authority, submitted for review and an application for marketing authorization must be approved by the regulatory authority.

Certain products may be comprised of components that are regulated under separate regulatory authorities and by different centers at the FDA. These products are known as combination products. A combination product is comprised of a combination of a drug and a device; a biological product and a device; a drug and a biological product; or a drug, a device, and a biological product. Under regulations issued by the FDA, a combination product includes:

- a product comprised of two or more regulated components that are physically, chemically, or otherwise combined or mixed and produced as a single entity;
- two or more separate products packaged together in a single package or as a unit and comprised of drug and device products, device and biological products, or biological and drug products;
- a drug, device, or biological product packaged separately that according to its investigational plan or proposed labeling is intended for use only with an approved individually specified drug, device or biological where both are required to achieve the intended use, indication, or effect and where upon approval of the proposed product the

labeling of the approved product would need to be changed, e.g., to reflect a change in intended use, dosage form, strength, route of administration, or significant change in dose; or

- any investigational drug, device, or biological packaged separately that according to its proposed labeling is for use only with another individually specified investigational drug, device, or biological product where both are required to achieve the intended use, indication, or effect.

Under the FDCA, the FDA is charged with assigning a center with primary jurisdiction, or a lead center, for review of a combination product. That determination is based on the "primary mode of action" of the combination product, which means the single mode of action that provides the most important therapeutic action of the combination product, i.e., the mode of action expected to make the greatest contribution to the overall intended therapeutic effects of the combination product. Thus, if the primary mode of action of a device-biologic combination product is attributable to the biologic product, that is, if it acts by means of a virus, therapeutic serum, toxin, antitoxin, vaccine, blood, blood component or derivative, allergenic product, or analogous product, the FDA center responsible for premarket review of the biologic product (the Center for Biologics Evaluation and Research, or CBER) would have primary jurisdiction for the combination product.

U.S. Biological Product Development

In the United States, the FDA regulates biologics under the Federal Food, Drug, and Cosmetic Act, or FDCA, and the Public Health Service Act, or PHSA, and their implementing regulations. Biologics are also subject to other federal, state and local statutes and regulations. The process of obtaining regulatory approvals and the subsequent compliance with appropriate federal, state, local and foreign statutes and regulations require the expenditure of substantial time and financial resources. Failure to comply with the applicable U.S. requirements at any time during the product development process, approval process or after approval, may subject an applicant to administrative or judicial sanctions. These sanctions could include, among other actions, the FDA's refusal to approve pending applications, withdrawal of an approval or license revocation, a clinical hold, untitled or warning letters, product recalls or withdrawals from the market, product seizures, total or partial suspension of production or distribution, injunctions, fines, refusals of government contracts, restitution, disgorgement, or civil or criminal penalties. Any agency or judicial enforcement action could have a material adverse effect on us.

Our drug product candidates must be approved by the FDA through the Biologics License Application, or BLA, process before they may be legally marketed in the United States. The process required by the FDA before a biologic may be marketed in the United States generally involves the following:

- completion of extensive nonclinical, sometimes referred to as preclinical, laboratory tests, animal studies and formulation studies in accordance with applicable regulations, including the FDA's Good Laboratory Practice, or GLP, regulations;
- submission to the FDA of an IND, which must become effective before human clinical trials may begin;
- performance of adequate and well-controlled human clinical trials in accordance with applicable IND regulations, good clinical practices, or GCPs, and other clinical trial-related regulations to establish the safety and efficacy of the proposed drug product candidate for its proposed indication;
- submission to the FDA of a BLA;

- satisfactory completion of an FDA pre-approval inspection of the manufacturing facility or facilities where the product is produced to assess compliance with the FDA's current good manufacturing practice, or cGMP, requirements to assure that the facilities, methods and controls are adequate to preserve the product's identity, strength, quality, purity and potency;
- potential FDA audit of the preclinical study sites and/or clinical trial sites that generated the data in support of the BLA; and
- FDA review and approval of the BLA prior to any commercial marketing or sale of the product in the United States.

The data required to support a BLA is generated in two distinct development stages: preclinical and clinical. The preclinical development stage generally involves laboratory evaluations of drug chemistry, formulation and stability, as well as studies to evaluate toxicity in animals, which support subsequent clinical testing. The conduct of the preclinical studies must comply with federal regulations, including GLPs. The sponsor must submit the results of the preclinical studies, together with manufacturing information, analytical data, any available clinical data or literature and a proposed clinical protocol, as well as other information, to the FDA as part of the IND. An IND is a request for authorization from the FDA to administer an investigational drug product to humans. The central focus of an IND submission is on the general investigational plan and the protocol(s) for human trials. The IND automatically becomes effective 30 days after receipt by the FDA, unless the FDA raises concerns or questions regarding the proposed clinical trials and places the IND on clinical hold within that 30-day time period. In such a case, the IND sponsor and the FDA must resolve any outstanding concerns before the clinical trial can begin. The FDA may also impose clinical holds on a drug product candidate at any time before or during clinical trials due to safety concerns, non-compliance, or other issues affecting the integrity of the trial. Accordingly, we cannot be sure that submission of an IND will result in the FDA allowing clinical trials to begin, or that, once begun, issues will not arise that could cause the trial to be suspended or terminated. Where a trial is conducted at, or sponsored by, institutions receiving NIH funding for recombinant DNA research, prior to the submission of an IND to the FDA, a protocol and related documentation is submitted to and the trial is registered with the NIH Office of Biotechnology Activities, or OBA, pursuant to the NIH Guidelines for Research Involving Recombinant or Synthetic Nucleic Acid Molecules, or NIH Guidelines. Compliance with the NIH Guidelines is mandatory for investigators at institutions receiving NIH funds for research involving recombinant DNA, however many companies and other institutions not otherwise subject to the NIH Guidelines voluntarily follow them. The NIH is responsible for convening the Recombinant NDA Advisory Committee, or RAC, a federal advisory committee, which discusses protocols that raise novel or particularly important scientific, safety or ethical considerations at one of its quarterly public meetings. The OBA will notify the FDA of the RAC's decision regarding the necessity for full public review of a gene therapy protocol. RAC proceedings and reports are posted to the OBA web site and may be accessed by the public.

The clinical stage of development involves the administration of the drug product candidate to healthy volunteers and patients under the supervision of qualified investigators, generally physicians not employed by or under the trial sponsor's control, in accordance with GCPs, which include the requirement that all research subjects provide their informed consent for their participation in any clinical trial. Clinical trials are conducted under protocols detailing, among other things, the objectives of the clinical trial, dosing procedures, subject selection and exclusion criteria, and the parameters to be used to monitor subject safety and assess efficacy. Each protocol, and any subsequent amendments to the protocol, must be submitted to the FDA as part of the IND. Further, each clinical trial must be reviewed and approved by an independent institutional review board, or IRB, at or servicing each institution at which the clinical trial will be conducted. An IRB is charged with protecting the welfare

and rights of trial participants and considers such items as whether the risks to individuals participating in the clinical trials are minimized and are reasonable in relation to anticipated benefits. The IRB also approves the informed consent form that must be provided to each clinical trial subject or his or her legal representative and must monitor the clinical trial until completed.

There are also requirements governing the reporting of ongoing clinical trials and completed clinical trial results to public registries. Sponsors of certain clinical trials of FDA-regulated products, including biologics, are required to register and disclose certain clinical trial information, which is publicly available at www.clinicaltrials.gov. Information related to the product, patient population, phase of investigation, study sites and investigators, and other aspects of the clinical trial is then made public as part of the registration. Sponsors are also obligated to discuss the results of their clinical trials after completion. Disclosure of the results of these trials can be delayed until the new product or new indication being studied has been approved. However, there are evolving rules and increasing requirements for publication of trial-related information, and it is possible that data and other information from trials involving biologics that never garner approval could in the future require disclosure. In addition, publication policies of major medical journals mandate certain registration and disclosures as a pre-condition for potential publication, even if not currently mandated as a matter of law. Competitors may use this publicly available information to gain knowledge regarding the progress of development programs.

Clinical trials are generally conducted in three sequential phases, known as Phase 1, Phase 2 and Phase 3, and may overlap. Phase 1 clinical trials generally involve a small number of healthy volunteers who are initially exposed to a single dose and then multiple doses of the drug product candidate. The primary purpose of these clinical trials is to assess the metabolism, pharmacologic action, side effect tolerability and safety of the drug product candidate and, if possible, to gain early evidence on effectiveness. Phase 2 clinical trials typically involve studies in disease-affected patients to determine the dose required to produce the desired benefits. At the same time, safety and further pharmacokinetic and pharmacodynamic information is collected, as well as identification of possible adverse effects and safety risks and preliminary evaluation of efficacy. Phase 3 clinical trials generally involve large numbers of patients at multiple sites, in multiple countries, and are designed to provide the data necessary to demonstrate the efficacy of the product for its intended use, its safety in use, and to establish the overall benefit/risk relationship of the product and provide an adequate basis for product approval. Phase 3 clinical trials may include comparisons with placebo and/or other comparator treatments. The duration of treatment is often extended to mimic the actual use of a product during marketing. Generally, two adequate and well-controlled Phase 3 clinical trials are required by the FDA for approval of a BLA.

Post-approval trials, sometimes referred to as Phase IV clinical trials, may be conducted after initial marketing approval. These trials are used to gain additional experience from the treatment of patients in the intended therapeutic indication. In certain instances, FDA may condition approval of a BLA on the sponsor’s agreement to conduct additional clinical trials to further assess the biologic’s safety and effectiveness after BLA approval.

Progress reports detailing the results of the clinical trials, among other information, must be submitted at least annually to the FDA, and written IND safety reports must be submitted to the FDA and the investigators for serious and unexpected suspected adverse events, findings from other studies suggesting a significant risk to humans exposed to the biologic, findings from animal or in vitro testing that suggest a significant risk for human subjects, and any clinically important increase in the rate of a serious suspected adverse reaction over that listed in the protocol or investigator brochure. Phase 1, Phase 2 and Phase 3 clinical trials may not be completed successfully within any specified period, if at

all. The FDA, the IRB, or the sponsor may suspend or terminate a clinical trial at any time on various grounds, including a finding that the research subjects or patients are being exposed to an unacceptable health risk. Similarly, an IRB can suspend or terminate approval of a clinical trial at its institution if the clinical trial is not being conducted in accordance with the IRB's requirements or if the drug has been associated with unexpected serious harm to patients. Additionally, some clinical trials are overseen by an independent group of qualified experts organized by the clinical trial sponsor, known as a data safety monitoring board or committee. This group provides authorization for whether or not a trial may move forward at designated intervals based on access to certain data from the trial. We may also suspend or terminate a clinical trial based on evolving business objectives and/or competitive climate. Concurrent with clinical trials, companies usually complete additional animal studies and must also develop additional information about the chemistry and physical characteristics of the drug product candidate as well as finalize a process for manufacturing the product in commercial quantities in accordance with cGMP requirements. The manufacturing process must be capable of consistently producing quality batches of the drug product candidate and, among other things, must develop methods for testing the identity, strength, quality and purity of the final product. Additionally, appropriate packaging must be selected and tested and stability studies must be conducted to demonstrate that the drug product candidate does not undergo unacceptable deterioration over its shelf life.

BLA and FDA Review Process

Following trial completion, trial data are analyzed to assess safety and efficacy. The results of preclinical studies and clinical trials are then submitted to the FDA as part of a BLA, along with proposed labeling for the product and information about the manufacturing process and facilities that will be used to ensure product quality, results of analytical testing conducted on the chemistry of the drug product candidate, and other relevant information. The BLA is a request for approval to market the biologic for one or more specified indications and must contain proof of safety, purity, potency and efficacy, which is demonstrated by extensive preclinical and clinical testing. The application may include both negative or ambiguous results of preclinical and clinical trials as well as positive findings. Data may come from company-sponsored clinical trials intended to test the safety and efficacy of a use of a product, or from a number of alternative sources, including studies initiated by investigators. To support marketing approval, the data submitted must be sufficient in quality and quantity to establish the safety and efficacy of the investigational product to the satisfaction of the FDA. FDA approval of a BLA must be obtained before a biologic may be marketed in the United States.

Under the Prescription Drug User Fee Act, or PDUFA, as amended, each BLA must be accompanied by a significant user fee, which is adjusted on an annual basis. PDUFA also imposes an annual prescription drug product program fee. Fee waivers or reductions are available in certain circumstances, including a waiver of the application fee for the first application filed by a small business.

Once a BLA has been accepted for filing, which occurs, if at all, sixty days after the BLA's submission, the FDA's goal is to review BLAs within 10 months of the filing date for standard review or six months of the filing date for priority review, if the application is for a product intended for a serious or life-threatening condition and the product, if approved, would provide a significant improvement in safety or effectiveness. The review process is often significantly extended by FDA requests for additional information or clarification.

After the BLA submission is accepted for filing, the FDA reviews the BLA to determine, among other things, whether the proposed drug product candidate is safe and effective for its intended use, and whether the drug product candidate is being manufactured in accordance with cGMP to assure and

preserve the drug product candidate's identity, strength, quality, purity and potency. The FDA may refer applications for novel drug product candidates or drug product candidates which present difficult questions of safety or efficacy to an advisory committee, typically a panel that includes clinicians and other experts, for review, evaluation and a recommendation as to whether the application should be approved and under what conditions. The FDA is not bound by the recommendations of an advisory committee, but it considers such recommendations carefully when making decisions. The FDA will likely re-analyze the clinical trial data, which could result in extensive discussions between the FDA and us during the review process. The review and evaluation of a BLA by the FDA is extensive and time consuming and may take longer than originally planned to complete, and we may not receive a timely approval, if at all.

Before approving a BLA, the FDA will conduct a pre-approval inspection of the manufacturing facilities for the new product to determine whether they comply with cGMPs. The FDA will not approve the product unless it determines that the manufacturing processes and facilities are in compliance with cGMP requirements and adequate to assure consistent production of the product within required specifications. In addition, before approving a BLA, the FDA may also audit data from clinical trials to ensure compliance with GCP requirements. After the FDA evaluates the application, manufacturing process and manufacturing facilities, it may issue an approval letter or a Complete Response Letter. An approval letter authorizes commercial marketing of the product with specific prescribing information for specific indications. A Complete Response Letter indicates that the review cycle of the application is complete and the application will not be approved in its present form. A Complete Response Letter usually describes all of the specific deficiencies in the BLA identified by the FDA. The Complete Response Letter may require additional clinical data and/or an additional pivotal Phase III clinical trial(s), and/or other significant and time-consuming requirements related to clinical trials, preclinical studies or manufacturing. If a Complete Response Letter is issued, the applicant may either resubmit the BLA, addressing all of the deficiencies identified in the letter, withdraw the application or request a hearing. Even if such data and information is submitted, the FDA may ultimately decide that the BLA does not satisfy the criteria for approval. Data obtained from clinical trials are not always conclusive, and the FDA may interpret data differently than we interpret the same data.

There is no assurance that the FDA will ultimately approve a product for marketing in the United States, and we may encounter significant difficulties or costs during the review process. If a product receives marketing approval, the approval may be significantly limited to specific populations, severities of allergies, and dosages or the indications for use may otherwise be limited, which could restrict the commercial value of the product. Further, the FDA may require that certain contraindications, warnings or precautions be included in the product labeling or may condition the approval of the BLA on other changes to the proposed labeling, development of adequate controls and specifications, or a commitment to conduct post-market testing or clinical trials and surveillance to monitor the effects of approved products. For example, the FDA may require Phase IV testing which involves clinical trials designed to further assess the product's safety and effectiveness and may require testing and surveillance programs to monitor the safety of approved products that have been commercialized. The FDA may also place other conditions on approvals including the requirement for a Risk Evaluation and Mitigation Strategy, or REMS, to assure the safe use of the product. If the FDA concludes a REMS is needed, the sponsor of the BLA must submit a proposed REMS. The FDA will not approve the NDA without an approved REMS, if required. A REMS could include medication guides, physician communication plans, or elements to assure safe use, such as restricted distribution methods, patient registries and other risk minimization tools. Any of these limitations on approval or marketing could restrict the commercial promotion, distribution, prescription or dispensing of products. Product approvals may be withdrawn for non-compliance with regulatory standards or if problems occur following initial marketing.

Expedited Development and Review Programs

The FDA has a Fast Track program that is intended to expedite or facilitate the process for reviewing new drugs and biological products that meet certain criteria. Specifically, new drugs and biological products are eligible for Fast Track designation if they are intended to treat a serious or life-threatening condition and nonclinical or clinical data demonstrate the potential to address unmet medical needs for the condition. Fast Track designation applies to the combination of the product and the specific indication for which it is being studied. The sponsor of a new drug or biologic may request the FDA to designate the drug or biologic as a Fast Track product concurrently with, or at any time after, submission of an IND, and the FDA must determine if the product qualifies for Fast Track designation within 60 days of receipt of the sponsor's request. Unique to a Fast Track product, the FDA may consider for review sections of the marketing application on a rolling basis before the complete application is submitted, if the sponsor provides a schedule for the submission of the sections of the application, the FDA agrees to accept sections of the application and determines that the schedule is acceptable, and the sponsor pays any required user fees upon submission of the first section of the application.

Any product submitted to the FDA for marketing, including under a Fast Track program, may be eligible for other types of FDA programs intended to expedite development and review, such as priority review and accelerated approval. Any product is eligible for priority review, or review within a six-month timeframe from the date a complete BLA is accepted for filing, if it has the potential to provide a significant improvement in safety and effectiveness compared to available therapies. The FDA will attempt to direct additional resources to the evaluation of an application for a new drug or biological product designated for priority review in an effort to facilitate the review.

Additionally, a product may be eligible for accelerated approval. An investigational drug may obtain accelerated approval if it treats a serious or life-threatening condition and generally provides a meaningful advantage over available therapies and demonstrates an effect on a surrogate endpoint that is reasonably likely to predict clinical benefit or on a clinical endpoint that can be measured earlier than irreversible morbidity or mortality, or IMM, that is reasonably likely to predict an effect on IMM or other clinical benefit. As a condition of approval, the FDA may require that a sponsor of a drug or biological product receiving accelerated approval perform adequate and well-controlled post-marketing clinical trials. If the FDA concludes that a drug shown to be effective can be safely used only if distribution or use is restricted, it will require such post-marketing restrictions as it deems necessary to assure safe use of the drug, such as:

- distribution restricted to certain facilities or physicians with special training or experience; or
- distribution conditioned on the performance of specified medical procedures.

The limitations imposed would be commensurate with the specific safety concerns presented by the product. In addition, the FDA currently requires as a condition for accelerated approval pre-approval of promotional materials, which could adversely impact the timing of the commercial launch of the product. Fast Track designation, priority review and accelerated approval do not change the standards for approval but may expedite the development or approval process.

Breakthrough Designation

A product can be designated as a breakthrough therapy if it is intended to treat a serious or life-threatening condition and preliminary clinical evidence indicates that it may demonstrate substantial

improvement over existing therapies on one or more clinically significant endpoints. A sponsor may request that a drug product candidate be designated as a breakthrough therapy concurrently with, or at any time after, the submission of an IND, and the FDA must determine if the drug product candidate qualifies for breakthrough therapy designation within 60 days of receipt of the sponsor's request. If so designated, the FDA shall act to expedite the development and review of the product's marketing application, including by meeting with the sponsor throughout the product's development, providing timely advice to the sponsor to ensure that the development program to gather preclinical and clinical data is as efficient as practicable, involving senior managers and experienced review staff in a cross-disciplinary review, assigning a cross-disciplinary project lead for the FDA review team to facilitate an efficient review of the development program and to serve as a scientific liaison between the review team and the sponsor, and taking steps to ensure that the design of the clinical trials is as efficient as practicable.

Accelerated Approval for Regenerative Advanced Therapies

As part of the 21st Century Cures Act, Congress amended the FD&C Act to create an accelerated approval program for regenerative advanced therapies, which include cell therapies, therapeutic tissue engineering products, human cell and tissue products, and combination products using any such therapies or products. Regenerative advanced therapies do not include those human cells, tissues, and cellular and tissue based products regulated solely under section 361 of the Public Health Service Act and 21 CFR Part 1271. The new program is intended to facilitate efficient development and expedite review of regenerative advanced therapies, which are intended to treat, modify, reverse, or cure a serious or life-threatening disease or condition. A drug sponsor may request that FDA designate a drug as a regenerative advanced therapy concurrently with or at any time after submission of an IND. FDA has 60 calendar days to determine whether the drug meets the criteria, including whether there is preliminary clinical evidence indicating that the drug has the potential to address unmet medical needs for a serious or life-threatening disease or condition. A new drug application or BLA for a regenerative advanced therapy may be eligible for priority review or accelerated approval through (1) surrogate or intermediate endpoints reasonably likely to predict long-term clinical benefit or (2) reliance upon data obtained from a meaningful number of sites. Benefits of such designation also include early interactions with FDA to discuss any potential surrogate or intermediate endpoint to be used to support accelerated approval. A regenerative advanced therapy that is granted accelerated approval and is subject to postapproval requirements may fulfill such requirements through the submission of clinical evidence, clinical studies, patient registries, or other sources of real world evidence, such as electronic health records; the collection of larger confirmatory data sets; or postapproval monitoring of all patients treated with such therapy prior to its approval.

Pediatric Trials

Under the Pediatric Research Equity Act, or PREA, a BLA or supplement to a BLA must contain data to assess the safety and efficacy of the product for the claimed indications in all relevant pediatric subpopulations and to support dosing and administration for each pediatric subpopulation for which the product is safe and effective. The FDCA requires that a sponsor who is planning to submit a marketing application for a drug or biological product that includes a new active ingredient, new indication, new dosage form, new dosing regimen or new route of administration submit an initial Pediatric Study Plan, or PSP, within sixty days of an end-of-Phase II meeting or as may be agreed between the sponsor and FDA. The initial PSP must include an outline of the pediatric study or studies that the sponsor plans to conduct, including study objectives and design, age groups, relevant endpoints and statistical approach, or a justification for not including such detailed information, and any request for a deferral of pediatric assessments or a full or partial waiver of the requirement to provide data from pediatric studies along

with supporting information. FDA and the sponsor must reach agreement on the PSP. A sponsor can submit amendments to an agreed-upon initial PSP at any time if changes to the pediatric plan need to be considered based on data collected from nonclinical studies, early phase clinical trials, and/or other clinical development programs. The FDA may, on its own initiative or at the request of the applicant, grant deferrals for submission of data or full or partial waivers.

Post-Marketing Requirements

Following approval of a new product, a manufacturer and the approved product are subject to continuing regulation by the FDA, including, among other things, monitoring and recordkeeping activities, reporting to the applicable regulatory authorities of adverse experiences with the product, providing the regulatory authorities with updated safety and efficacy information, product sampling and distribution requirements, and complying with promotion and advertising requirements, which include, among others, standards for direct-to-consumer advertising, restrictions on promoting products for uses or in patient populations that are not described in the product's approved labeling (known as "off-label use"), limitations on industry-sponsored scientific and educational activities, and requirements for promotional activities involving the internet. Although physicians may prescribe legally available drugs and biologics for off-label uses, manufacturers may not market or promote such off-label uses.

Modifications or enhancements to the product or its labeling or changes of the site of manufacture are often subject to the approval of the FDA and other regulators, which may or may not be received or may result in a lengthy review process. Prescription drug promotional materials must be submitted to the FDA in conjunction with their first use. Any distribution of prescription drug products and pharmaceutical samples must comply with the U.S. Prescription Drug Marketing Act, or the PDMA, a part of the FDCA.

In the United States, once a product is approved, its manufacture is subject to comprehensive and continuing regulation by the FDA. The FDA regulations require that products be manufactured in specific approved facilities and in accordance with cGMPs. The cGMP requirements for constituent parts of cross-labeled combination products that are manufactured separately and not co-packaged are the same as those that would apply if these constituent parts were not part of a combination product. For single-entity and co-packaged combination products, there are two ways to demonstrate compliance with cGMP requirements, either compliance with all cGMP regulations applicable to each of the constituent parts included in the combination product, or a streamlined approach demonstrating compliance with either the drug/biologic cGMPs or the medical device quality system regulation rather than demonstrating full compliance with both, under certain conditions. These conditions include demonstrating compliance with specified provisions from the other of these two sets of cGMP requirements. We rely, and expect to continue to rely, on third parties for the production of clinical and commercial quantities of our products in accordance with cGMP regulations. cGMP regulations require, among other things, quality control and quality assurance as well as the corresponding maintenance of records and documentation and the obligation to investigate and correct any deviations from cGMP. Manufacturers and other entities involved in the manufacture and distribution of approved products are required to register their establishments with the FDA and certain state agencies, and are subject to periodic unannounced inspections by the FDA and certain state agencies for compliance with cGMP and other laws. Accordingly, manufacturers must continue to expend time, money, and effort in the area of production and quality control to maintain cGMP compliance. These regulations also impose certain organizational, procedural and documentation requirements with respect to manufacturing and quality assurance activities. BLA holders using contract manufacturers, laboratories or packagers are responsible for the selection and monitoring of qualified firms, and, in certain circumstances, qualified suppliers to these firms. These firms and, where applicable, their suppliers are subject to inspections by

the FDA at any time, and the discovery of violative conditions, including failure to conform to cGMP, could result in enforcement actions that interrupt the operation of any such facilities or the ability to distribute products manufactured, processed or tested by them. Discovery of problems with a product after approval may result in restrictions on a product, manufacturer, or holder of an approved BLA, including, among other things, recall or withdrawal of the product from the market.

The FDA also may require post-approval testing, sometimes referred to as Phase IV testing, risk minimization action plans and post-marketing surveillance to monitor the effects of an approved product or place conditions on an approval that could restrict the distribution or use of the product. Discovery of previously unknown problems with a product or the failure to comply with applicable FDA requirements can have negative consequences, including adverse publicity, judicial or administrative enforcement, untitled or warning letters from the FDA, mandated corrective advertising or communications with doctors, and civil or criminal penalties, among others. Newly discovered or developed safety or effectiveness data may require changes to a product's approved labeling, including the addition of new warnings and contraindications, and also may require the implementation of other risk management measures. Also, new government requirements, including those resulting from new legislation, may be established, or the FDA's policies may change, which could delay or prevent regulatory approval of our products under development.

Other Regulatory Matters

Manufacturing, sales, promotion and other activities following product approval are also subject to regulation by numerous regulatory authorities in addition to the FDA, including, in the United States, the Centers for Medicare & Medicaid Services, or CMS, other divisions of the Department of Health and Human Services, the Drug Enforcement Administration, the Consumer Product Safety Commission, the Federal Trade Commission, the Occupational Safety & Health Administration, the Environmental Protection Agency and state and local governments. In the United States, sales, marketing and scientific/educational programs must also comply with federal and state fraud and abuse laws, data privacy and security laws, transparency laws, and pricing and reimbursement requirements in connection with governmental payor programs, among others. The handling of any controlled substances must comply with the U.S. Controlled Substances Act and Controlled Substances Import and Export Act. Products must meet applicable child-resistant packaging requirements under the U.S. Poison Prevention Packaging Act. Manufacturing, sales, promotion and other activities are also potentially subject to federal and state consumer protection and unfair competition laws.

The distribution of pharmaceutical products is subject to additional requirements and regulations, including extensive record-keeping, licensing, storage and security requirements intended to prevent the unauthorized sale of pharmaceutical products.

The failure to comply with regulatory requirements subjects firms to possible legal or regulatory action. Depending on the circumstances, failure to meet applicable regulatory requirements can result in criminal prosecution, fines or other penalties, injunctions, recall or seizure of products, total or partial suspension of production, denial or withdrawal of product approvals, or refusal to allow a firm to enter into supply contracts, including government contracts. In addition, even if a firm complies with FDA and other requirements, new information regarding the safety or efficacy of a product could lead the FDA to modify or withdraw product approval. Prohibitions or restrictions on sales or withdrawal of future products marketed by us could materially affect our business in an adverse way.

Changes in regulations, statutes or the interpretation of existing regulations could impact our business in the future by requiring, for example: (i) changes to our manufacturing arrangements; (ii) additions or modifications to product labeling; (iii) the recall or discontinuation of our products; or (iv) additional record-keeping requirements. If any such changes were to be imposed, they could adversely affect the operation of our business.

U.S. Patent Term Restoration and Marketing Exclusivity

Depending upon the timing, duration and specifics of the FDA approval of our drug product candidates, some of our U.S. patents may be eligible for limited patent term extension under the Drug Price Competition and Patent Term Restoration Act of 1984, commonly referred to as the Hatch-Waxman Amendments. The Hatch-Waxman Amendments permit a patent restoration term of up to five years as compensation for patent term lost during product development and the FDA regulatory review process. However, patent term restoration cannot extend the remaining term of a patent beyond a total of 14 years from the product's approval date. The patent term restoration period is generally one-half the time between the effective date of an IND and the submission date of a BLA plus the time between the submission date of a BLA and the approval of that application, except that the review period is reduced by any time during which the applicant failed to exercise due diligence. Only one patent applicable to an approved drug is eligible for the extension and the application for the extension must be submitted prior to the expiration of the patent. The U.S. PTO, in consultation with the FDA, reviews and approves the application for any patent term extension or restoration. In the future, we may apply for restoration of patent term for our currently owned or licensed patents to add patent life beyond its current expiration date, depending on the expected length of the clinical trials and other factors involved in the filing of the relevant BLA.

An abbreviated approval pathway for biological products shown to be biosimilar to, or interchangeable with, an FDA-licensed reference biological product was created by the Biologics Price Competition and Innovation Act of 2009, or BPCI Act, which was part of the Patient Protection and Affordable Care Act, as amended by the Health Care and Education Reconciliation Act of 2010, or collectively the ACA. This amendment to the PHSA attempts to minimize duplicative testing. Biosimilarity, which requires that the biological product be highly similar to the reference product notwithstanding minor differences in clinically inactive components and that there be no clinically meaningful differences between the product and the reference product in terms of safety, purity, and potency, can be shown through analytical studies, animal studies, and a clinical trial or trials. Interchangeability requires that a biological product be biosimilar to the reference product and that the product can be expected to produce the same clinical results as the reference product in any given patient and, for products administered multiple times, that the product and the reference product may be switched after one has been previously administered without increasing safety risks or risks of diminished efficacy relative to exclusive use of the reference biological product. However, complexities associated with the larger, and often more complex, structure of biological products as compared to small molecule drugs, as well as the processes by which such products are manufactured, pose significant hurdles to implementation that are still being worked out by the FDA.

A reference biological product is granted twelve years of exclusivity from the time of first licensure of the product, and the FDA will not accept an application for a biosimilar or interchangeable product based on the reference biological product until four years after first licensure. "First licensure" typically means the initial date the particular product at issue was licensed in the United States. This does not include a supplement for the biological product or a subsequent application by the same sponsor or manufacturer of the biological product (or licensor, predecessor in interest, or other related entity) for a change that results in a new indication, route of administration, dosing schedule, dosage form, delivery

system, delivery device, or strength, unless that change is a modification to the structure of the biological product and such modification changes its safety, purity, or potency. Whether a subsequent application, if approved, warrants exclusivity as the "first licensure" of a biological product is determined on a case-by-case basis with data submitted by the sponsor.

Pediatric exclusivity is another type of regulatory market exclusivity in the United States. Pediatric exclusivity, if granted, adds six months to existing exclusivity periods and patent terms. This six-month exclusivity, which attaches to the twelve-year exclusivity period for reference biologics, may be granted based on the voluntary completion of a pediatric trial in accordance with an FDA-issued "Written Request" for such a trial.

European Union Drug Development

In the European Union, our future drug product candidates will also be subject to extensive regulatory requirements. As in the United States, medicinal products can only be marketed if a marketing authorization, or MA, from the competent regulatory agencies has been obtained.

Clinical Trials

Similar to the United States, the various phases of preclinical and clinical research in the European Union are subject to significant regulatory controls. Although the EU Clinical Trials Directive 2001/20/EC has sought to harmonize the European Union clinical trials regulatory framework, setting out common rules for the control and authorization of clinical trials in the European Union, the European Union Member States have transposed and applied the provisions of the Directive differently. This has led to significant variations in the Member State regimes. To improve the current system, a new Regulation No. 536/2014, or the Regulation, on clinical trials on medicinal drug product candidates for human use, which repealed Directive 2001/20/EC, was adopted on April 16, 2014, and published in the European Official Journal on May 27, 2014. The new Regulation aims at harmonizing and streamlining the clinical trials authorization process, simplifying adverse event reporting procedures, improving the supervision of clinical trials, and increasing their transparency. The new Regulation entered into force on June 16, 2014, but the timing of its application depends on the development of a fully functional EU clinical trials portal and database. The Regulation becomes applicable six months after the European Commission publishes a notice of this confirmation. According to the latest information publicly available, the entry into application of the Regulation is currently estimated to occur in 2019. So far, however, such confirmation has not been published. Until then the Clinical Trials Directive 2001/20/EC will still apply. In addition, the transitory provisions of the new Regulation offer the sponsors the possibility to choose between the requirements of the Directive and the Regulation if the request for authorization of a clinical trial is submitted between 6 and 18 months after publication of the confirmation by the Commission that the clinical trials portal and database is functional. In that case, the clinical continues to be governed by the Directive until 42 months after the date of the publication.

Under the current regime, before a clinical trial can be initiated it must be approved in each of the European Union countries where the trial is to be conducted by two distinct bodies: the National Competent Authority, or NCA, and one or more Ethics Committees, or ECs. More specifically, a clinical trial may not be started until the relevant EC has issued a favorable opinion, and the NCA has not informed the Sponsor of the trial of any grounds for non-acceptance or confirmed that no such grounds exist. Approval will only be granted if satisfactory information demonstrating the quality of the investigational agent and its non-clinical safety has been provided, together with a study plan that details the manner in which the trial will be carried out.

ECs determine whether the proposed clinical trial will expose participants to unacceptable conditions of hazards, while considering, among other things, the trial design, protocol, facilities, investigator and supporting staff, recruitment of clinical trial subjects, the Investigator's Brochure, or IB, indemnity and insurance, etc. The EC also determines whether clinical trial participants have given informed consent to participate in the trial. Following receipt of an application (which must be submitted in the national language), ECs must deliver their opinion within 60 days (or sooner if the Member State has implemented a shorter time period). For clinical trials of gene therapy, somatic cell therapy, and all medicinal products containing genetically modified organisms, this timeline may be extended (with an additional 120 days).

Similarly, a valid request for authorization (in the national language) must be submitted to the NCA of each Member State where the trial will be conducted. Sponsors must be notified of the decision within 60 days of receipt of the application (unless shorter time periods have been fixed), in the absence of which, the trial is considered approved. However, for clinical trials of gene therapy, somatic cell therapy, and all medicinal products containing genetically modified organisms, a written authorization by the competent NCA is required. Similar timeline extensions as for ECs exist.

Studies must comply with ethical guidelines and Good Clinical Practice (GCP) guidelines. Monitoring of adverse reactions that occur during clinical trials, including, where applicable, notification of the same to the competent NCA and ECs, is also required. Trials can be terminated early if a danger to human health is established or continuing the trial would be considered unethical. Consequently, the rate of completion of clinical trials may be delayed by many factors, including slower than anticipated patient enrollment or adverse events occurring during clinical trials.

Drug Review and Approval

In the European Economic Area, or EEA (which is comprised of the 28 Member States of the European Union plus Norway, Iceland and Liechtenstein), medicinal products can only be commercialized after obtaining a Marketing Authorization, or MA.

There are two types of marketing authorizations:

The Centralized MA, which is issued by the European Commission through the Centralized Procedure, based on the opinion of the Committee for Medicinal Products for Human Use, or CHMP, of the European Medicines Agency, or EMA, and which is valid throughout the entire territory of the EEA. The Centralized Procedure is mandatory for certain types of products, such as biotechnology medicinal products, orphan medicinal products, advanced-therapy medicines such as gene-therapy, somatic cell-therapy or tissue-engineered medicines, and medicinal products containing a new active substance indicated for the treatment of HIV, AIDS, cancer, neurodegenerative disorders, diabetes, auto-immune and other immune dysfunctions, and viral diseases. The Centralized Procedure is optional for products containing a new active substance not yet authorized in the EEA, or for products that constitute a significant therapeutic, scientific or technical innovation or which is in the interest of public health in the European Union.

National MAs, which are issued by the competent authorities of the Member States of the EEA and only cover their respective territory, are available for products not falling within the mandatory scope of the Centralized Procedure. Where a product has already been authorized for marketing in a Member State of the EEA, this National MA can be recognized in other Member State(s) through the Mutual Recognition Procedure, or MRP. If the product has not received a National MA in any Member State at the time of application, it can be approved simultaneously in various Member States through the

Decentralized Procedure, or DCP. Under the DCP an identical dossier is submitted to the competent authorities of each of the Member States in which the MA is sought, one of which is selected by the applicant as the Reference Member State, or RMS. The competent authority of the RMS prepares a draft assessment report, a draft summary of product characteristics, or SmPC, and a draft of the labeling and package leaflet, which are sent to the other Member States (referred to as the Concerned Member States, or CMSs) for their approval. If the CMSs raise no objections, based on a potential serious risk to public health, to the assessment, SmPC, labeling, or packaging proposed by the RMS, the product is subsequently granted a national MA in all the relevant Member States (i.e. in the RMS and the CMSs).

Under the above described procedures, before granting the MA, the EMA or the competent authorities of the Member States of the EEA make an assessment of the risk-benefit balance of the product on the basis of scientific criteria concerning its quality, safety and efficacy.

Marketing Authorization Application

Following positive completion of clinical trials, pharmaceutical companies can submit a MA application. The MA application shall include all information that is relevant to the evaluation of the medicinal products, whether favorable or unfavorable. The application dossier must include, among other things, the results of pharmaceutical (physicochemical, biological, or microbiological) tests, preclinical (toxicological and pharmacological) tests, and clinical trials, including the therapeutic indications, contra-indications, and adverse reactions, and the recommended dosing regimen or posology.

In addition to demonstrating the safety and efficacy of the medicinal product, pharmaceutical companies are required to guarantee the consistent quality of the product. Therefore, the conditions for obtaining a MA include requirements that the manufacturer of the product complies with applicable legislation including Good Manufacturing Practice, or GMP, related implementing measures and applicable guidelines that involve, amongst others, ongoing inspections of manufacturing and storage facilities.

Early Access Mechanisms

Several schemes exist in the EU to support earlier access to new medicines falling within the scope of the Centralized Procedure, in particular (i) accelerated assessment; (ii) conditional MAs; and (iii) MAs granted under exceptional circumstances.

For a medicine, which is of "major public health interest" (in particular, in terms of therapeutic innovation), accelerated assessment can be requested, taking up to 150 days instead of the usual period of up to 210 days. There is no single definition of what constitutes major public health interest. This should be justified by the applicant on a case-by-case basis. The justification should present the arguments to support the claim that the medicinal product introduces new methods of therapy or improves on existing methods, thereby addressing to a significant extent the greater unmet needs for maintaining and improving public health.

Conditional MAs may be granted on the basis of less complete data than usual in order to meet unmet medical needs of patients and in the interest of public health, subject to specific obligations with regard to further studies and intended to be replaced by a full unconditional MA once the missing data is provided. A conditional MA is valid for one year on a renewable basis.

Medicines for which the MA applicant can demonstrate that the normally required comprehensive efficacy and safety data cannot be provided (for example because the disease which the medicine treats is extremely rare) may be eligible for a MA under exceptional circumstances. These are medicines for which it is never intended that a full MA will be obtained. MAs under exceptional circumstances are reviewed annually to reassess the risk-benefit balance.

Supplementary Protection Certificates and Data/market Exclusivity

In Europe, the extension of effective patent term to compensate originator pharmaceutical companies for the period between the filing of an application for a patent for a new medicinal product and the first MA for such product, has been achieved by means of a Supplementary Protection Certificate (SPC) which can be applied for by the originator pharmaceutical company within six months from the granting of the first MA and comes into effect on expiry of the basic patent. Such SPC attaches only to the active ingredient of the medicinal product for which the MA has been granted. The SPC for an active ingredient has a single last potential expiry date throughout the EEA, and cannot last for more than five years from the date on which it takes effect (*i.e.*, patent expiry). Furthermore, the overall duration of protection afforded by a patent and a SPC cannot exceed 15 years from the first MA. The duration of a medicinal product SPC can be extended by a single six-month period, or pediatric extension, when all studies in accordance with a pediatric investigation plan, or PIP, have been carried out.

Innovative medicines benefit from specific data and marketing exclusivity regimes. These regimes are intended to provide general regulatory protection to further stimulate innovation. The current rules provide for (i) an 8-year data protection (from the MA of an innovative medicine) against the filing of an abridged application for a follow-on product, referring to the data supporting the MA of the innovative medicine (data exclusivity); and (ii) a 10-year protection against the marketing of a follow-on product (marketing exclusivity), with a possible extension by 1 year if, during the first 8 years, a new therapeutic indication (which is considered to bring a significant clinical benefit in comparison with existing therapies) is approved. This protection is often referred to as the "eight, plus two, plus one" rule. Additional reward mechanisms exist, most notably a 10-year orphan medicines' marketing exclusivity, and a 1-year data exclusivity for developing a new indication for an old substance and for switch data supporting a change in prescription status.

The current rules also provide for a system of obligations and rewards and incentives intended to facilitate the development and accessibility of pediatric medicinal products, and to ensure that such products are subject to high quality ethical research. Pursuant to such rules, pharmaceutical companies are often required to submit a Pediatric Investigation Plan, or PIP, at a relatively early stage of product development, which defines the pediatric studies to be completed before a MA application can be submitted. Upon completion of the studies in the agreed PIP, we may be entitled to a "reward", *i.e.*, the afore-mentioned 6-month pediatric extension of the SPC for non-orphan medicinal products; or a two-year extension of the 10-year marketing exclusivity period for orphan medicines.

Post-marketing and Pharmacovigilance Requirements

When granting a MA, competent authorities (*i.e.*, the EMA or the relevant NCAs) may impose an obligation to conduct additional clinical testing, sometimes referred to as Phase IV clinical trials, or other post-approval commitments, to monitor the product after commercialization. Additionally, the MA may be subjected to limitations on the indicated uses for the product.

Also, after a MA has been obtained, the marketed product and its manufacturer and MA holder will continue to be subject to a number of regulatory obligations, as well as to monitoring/inspections by the competent authorities.

Under applicable pharmacovigilance rules, pharmaceutical companies must, in relation to all their authorized products, irrespective of the regulatory route of approval, collect, evaluate and collate information concerning all suspected adverse reactions and, when relevant, report it to the competent authorities. This information includes both suspected adverse reactions signaled by healthcare professionals, either spontaneously or through post-authorization studies, regardless of whether or not the medicinal product was used in accordance with the authorized SmPC and/or any other marketing conditions, and suspected adverse reactions identified in worldwide-published scientific literature. To that end, a MA holder must have (permanently and continuously) at its disposal an appropriately qualified person responsible for pharmacovigilance and establish an adequate pharmacovigilance system. All relevant suspected adverse reactions, including suspected serious adverse reactions, which must also be reported on an expedited basis, should be submitted to the competent authorities in the form of Periodic Safety Update Reports, or PSURs. PSURs are intended to provide an update for the competent authorities on the worldwide safety experience of a medicinal product at defined time points after authorization. PSURs must therefore comprise a succinct summary of information together with a critical evaluation of the risk/benefit balance of the medicinal product, taking into account any new or changing information. The evaluation should ascertain whether any further investigations need to be carried out, and whether the SmPC or other product information needs to be modified.

To ensure that pharmaceutical companies comply with pharmacovigilance regulatory obligations, and to facilitate compliance, competent authorities will conduct pharmacovigilance inspections. These inspections are either routine (*i.e.* aimed at determining whether the appropriate personnel, systems, and resources are in place) or targeted to companies suspected of being non-compliant. Reports of the outcome of such inspections will be used to help improve compliance and may also be used as a basis for enforcement action.

Other Regulatory Matters

Advertising of medicines is subject to tighter controls than general consumer goods and specific requirements are set forth in Directive 2001/83/EC, which apply in addition to the general rules. In general, advertising of unapproved medicinal products or of unapproved uses of otherwise authorized medicinal products (*e.g.*, off-label uses) is prohibited, and advertising for prescription medicinal products must be directed only towards health care professionals (*i.e.*, advertising of these products to the general public is prohibited). Member States have implemented the advertising rules differently and the requirements vary significantly depending on the specific country. Advertising of medicinal products in an online setting, including social media, can be particularly challenging given the strict rules in place.

Pricing and Reimbursement

United States

Sales of our products will depend, in part, on the extent to which our products, once approved, will be covered and reimbursed by third-party payors, such as government health programs, commercial insurance and managed healthcare organizations. These third-party payors are increasingly reducing reimbursements for medical products and services. The process for determining whether a third-party payor will provide coverage for a drug product, including a biologic, typically is separate from the process for setting the price of a drug product or for establishing the reimbursement rate that a payor

will pay for the drug product once coverage is approved. Third-party payors may limit coverage to specific drug products on an approved list, also known as a formulary, which might not include all of the approved drugs for a particular indication.

In order to secure coverage and reimbursement for any drug product candidate that might be approved for sale, we may need to conduct expensive pharmacoeconomic studies in order to demonstrate the medical necessity and cost-effectiveness of the drug product candidate, in addition to the costs required to obtain FDA or other comparable regulatory approvals. Whether or not we conduct such studies, our drug product candidates may not be considered medically necessary or cost-effective. A third-party payor's decision to provide coverage for a drug product does not imply that an adequate reimbursement rate will be approved. Further, one payor's determination to provide coverage for a product does not assure that other payors will also provide coverage, and adequate reimbursement, for the product. Third party reimbursement may not be sufficient to enable us to maintain price levels high enough to realize an appropriate return on our investment in product development.

The containment of healthcare costs has become a priority of federal and state governments, and the prices of drugs, including biologics, have been a focus in this effort. The U.S. government, state legislatures and foreign governments have shown significant interest in implementing cost-containment programs, including price controls, restrictions on reimbursement and requirements for substitution of generic products. Adoption of price controls and cost-containment measures, and adoption of more restrictive policies in jurisdictions with existing controls and measures, could further limit our net revenue and results. Decreases in third-party reimbursement for our drug product candidate or a decision by a third-party payor to not cover our drug product candidate could reduce physician usage of the drug product candidate and have a material adverse effect on our sales, results of operations and financial condition.

For example, the ACA, enacted in March 2010, has had a significant impact on the health care industry. The ACA has expanded coverage for the uninsured while at the same time containing overall healthcare costs. With regard to pharmaceutical products, among other things, the ACA expanded and increased industry rebates for drugs covered under Medicaid programs and made changes to the coverage requirements under the Medicare Part D program.

In addition, other legislative changes have been proposed and adopted in the United States since the ACA was enacted. On August 2, 2011, the Budget Control Act of 2011 among other things, created measures for spending reductions by Congress. A Joint Select Committee on Deficit Reduction, tasked with recommending a targeted deficit reduction of at least $1.2 trillion for the years 2013 through 2021, was unable to reach required goals, thereby triggering the legislation's automatic reduction to several government programs. This includes aggregate reductions to Medicare payments to providers of up to 2% per fiscal year, started in April 2013 and will stay in effect through 2027 unless additional Congressional action is taken. On January 2, 2013, then-President Obama signed into law the American Taxpayer Relief Act of 2012, which, among other things, reduced Medicare payments to several providers, including hospitals, imaging centers and cancer treatment centers, and increased the statute of limitations period for the government to recover overpayments to providers from three to five years.

Some of the provisions of ACA have yet to be fully implemented, while certain provisions have been subject to judicial and Congressional challenges. On January 20, 2017, President Trump signed an Executive Order directing federal agencies with authorities and responsibilities under ACA to waive, defer, grant exemptions from, or delay the implementation of any provision of ACA that would impose a fiscal burden on states or a cost, fee, tax, penalty or regulatory burden on individuals, healthcare providers, health insurers, or manufacturers of pharmaceuticals or medical devices. On October 13,

2017, President Trump signed an Executive Order terminating the cost-sharing subsidies that reimburse insurers under the ACA. Several state Attorneys General filed suit to stop the administration from terminating the subsidies, but their request for a restraining order was denied by a federal judge in California on October 25, 2017. In addition, CMS has recently proposed regulations that would give states greater flexibility in setting benchmarks for insurers in the individual and small group marketplaces, which may have the effect of relaxing the essential health benefits required under the ACA for plans sold through such marketplaces. Congress may consider other legislation to replace elements of the ACA.

The Tax Cuts and Jobs Act of 2017, or TCJA, includes a provision repealing, effective January 1, 2019, the tax-based shared responsibility payment imposed by the ACA on certain individuals who fail to maintain qualifying health coverage for all or part of a year that is commonly referred to as the "individual mandate." Additionally, on January 22, 2018, President Trump signed a continuing resolution on appropriations for fiscal year 2018 that delayed the implementation of certain ACA-mandated fees, including the so-called "Cadillac" tax on certain high cost employer-sponsored insurance plan, the annual fee imposed on certain high cost employer-sponsored insurance plans, the annual fee imposed on certain health insurance providers based on market share, and the medical device exercise tax on non-exempt medical devices. Further, the Bipartisan Budget Act of 2018, or the BBA, among other things, amends the ACA, effective January 1, 2019, to reduce the coverage gap in most Medicare drug plans, commonly referred to as the "donut hole." Congress also could consider subsequent legislation to replace elements of ACA that are repealed. Thus, the full impact of ACA, any law replacing elements of it, or the political uncertainty related to any repeal or replacement legislation on our business remains unclear.

In addition, in some foreign countries, the proposed pricing for a drug must be approved before it may be lawfully marketed. The requirements governing drug pricing vary widely from country to country.

European Union

In Europe, pricing and reimbursement for pharmaceutical products are not harmonized and fall within the exclusive competence of the national authorities, provided that basic transparency requirements (such as maximum timelines) defined at the European level are met as set forth in the EU Transparency Directive 89/105/EEC. A Member State may approve a specific price for a medicinal product or it may instead adopt a system of direct or indirect controls on the profitability of the company placing the medicinal product on the market. For example, in France, effective access to the market assumes that our future products will be reimbursed by social security. The price of medications is negotiated with the Economic Committee for Health Products, or CEPS.

As a consequence, reimbursement mechanisms by public national healthcare systems, or private health insurers also vary from country to country. In public healthcare systems, reimbursement is determined by guidelines established by the legislator or a competent national authority. In general, inclusion of a product in reimbursement schemes is dependent upon proof of the product efficacy, medical need, and economic benefits of the product to patients and the healthcare system in general. Acceptance for reimbursement comes with cost, use and often volume restrictions, which again vary from country to country.

The pricing and reimbursement level for medicinal products will depend on the strength of the clinical data set and, as for most novel therapies, restrictions may apply. In most countries, national competent authorities ensure that the prices of registered medicinal products sold in their territory are not excessive. In making this judgment, they usually compare the proposed national price either to prices of existing

treatments and/or to prices of the product at issue in other countries—so-called "international reference pricing"—also taking into account the type of treatment (preventive, curative or symptomatic), the degree of innovation, the therapeutic breakthrough, volume of sales, sales forecast, size of the target population and/or the improvement (including cost savings) over comparable treatments. Given the growing burden of medical treatments on national healthcare budgets, reimbursement and insurance coverage is an important determinant of the accessibility of medicines.

The various public and private plans, formulary restrictions, reimbursement policies, patient advocacy groups, and cost-sharing requirements may play a role in determining effective access to the market of our product candidates. The national competent authorities may also use a range of policies and other initiatives intended to influence pharmaceutical consumption. There can be no assurance that any country that has price controls or reimbursement limitations for pharmaceutical products will allow favorable reimbursement and pricing arrangements for any of our drug product candidates. Historically, products launched in the European Union do not follow price structures of the United States and generally tend to be priced at a significantly lower level.

Other Healthcare Laws and Compliance Requirements

Our business operations in the United States and our arrangements with clinical investigators, healthcare providers, consultants, third-party payors and patients may expose us to broadly applicable federal and state fraud and abuse and other healthcare laws. These laws may impact, among other things, our research, proposed sales, marketing and education programs of our drug product candidates that obtain marketing approval. The laws that may affect our ability to operate include, among others:

- the federal Anti-Kickback Statute, which prohibits, among other things, persons and entities from knowingly and willfully soliciting, receiving, offering or paying remuneration (including any kickback, bribe or rebate), directly or indirectly, in cash or in kind, to induce or reward, or in return for, either the referral of an individual for, or the purchase, lease, order, or recommendation of, an item, good, facility or service reimbursable under a federal healthcare program, such as the Medicare and Medicaid programs;

- federal civil and criminal false claims laws and civil monetary penalty laws, which impose penalties and provide for civil whistleblower or qui tam actions against individuals and entities for, among other things, knowingly presenting, or causing to be presented, claims for payment from Medicare, Medicaid, or other third-party payers that are false or fraudulent, or making a false statement or record material to payment of a false claim or avoiding, decreasing, or concealing an obligation to pay money to the federal government, including for example, providing inaccurate billing or coding information to customers or promoting a product off-label;

- the federal Health Insurance Portability and Accountability Act of 1996, or HIPAA, which created federal criminal statutes that prohibit, among other things, executing a scheme to defraud any healthcare benefit program, obtaining money or property of the health care benefit program through false representations, or knowingly and willingly falsifying, concealing or covering up a material fact, making false statements or using or making any false or fraudulent document in connection with the delivery of or payment for healthcare benefits or services.

- the federal Physician Payments Sunshine Act, enacted as part of the ACA, which requires applicable manufacturers of covered drugs, devices, biologics and medical supplies to track and annually report to CMS payments and other transfers of value provided to physicians and teaching hospitals and certain ownership and investment

interest held by physicians or their immediate family members in applicable manufacturers and group purchasing organizations;

- HIPAA, as amended by the Health Information Technology and Clinical Health Act, or HITECH, and its implementing regulations, which imposes certain requirements on covered entities and their business associates relating to the privacy, security and transmission of individually identifiable health information; and

- state law equivalents of each of the above federal laws, such as state anti-kickback and false claims laws which may apply to items or services reimbursed by any third-party payor, including commercial insurers, state marketing and/or transparency laws applicable to manufacturers that may be broader in scope than the federal requirements, state laws that require biopharmaceutical companies to comply with the biopharmaceutical industry's voluntary compliance guidelines and the relevant compliance guidance promulgated by the federal government, and state laws governing the privacy and security of health information in certain circumstances, many of which differ from each other in significant ways and may not have the same effect as HIPAA, thus complicating compliance efforts.

The ACA broadened the reach of the federal fraud and abuse laws by, among other things, amending the intent requirement of the federal Anti-Kickback Statute and certain applicable federal criminal healthcare fraud statutes. Pursuant to the statutory amendment, a person or entity no longer needs to have actual knowledge of this statute or specific intent to violate it in order to have committed a violation. In addition, the ACA provides that the government may assert that a claim including items or services resulting from a violation of the federal Anti-Kickback Statute constitutes a false or fraudulent claim for purposes of the civil False Claims Act or the civil monetary penalties statute.

Efforts to ensure that our business arrangements with third parties will comply with applicable healthcare laws will involve substantial costs. It is possible that governmental authorities will conclude that our business practices may not comply with current or future statutes, regulations or case law involving applicable fraud and abuse or other healthcare laws. If our operations are found to be in violation of any of these laws or any other governmental regulations that may apply to us, we may be subject to significant administrative, civil, and/or criminal penalties, damages, fines, disgorgement, individual imprisonment, exclusion from government funded healthcare programs, such as Medicare and Medicaid, and the curtailment or restructuring of our operations. If the physicians or other healthcare providers or entities with whom we expect to do business are found to be not in compliance with applicable laws, they also may be subject to administrative, civil, and/or criminal sanctions, including exclusions from government funded healthcare programs

8. MANAGEMENT AND CORPORATE GOVERNANCE

8.1. The Company's board of directors

Board composition

As provided by Article 7:85 of the BCCA, the Company is managed by a Board of Directors acting as a collegiate body. The Board of Directors' role is to pursue the long-term success of the Company by providing entrepreneurial leadership and enabling risks to be assessed and managed. The Board of Directors determines the Company's values and strategy, its risk preference and key policies. The Board of Directors ensures that the necessary leadership, financial and human resources are in place for the Company to meet its objectives.

The Company has opted for a one-tier governance structure. As provided by Article 522 of the Belgian Company Code, the Board of Directors is the ultimate decision-making body in the Company, except with respect to those areas that are reserved by law or by the Company's articles of association to the Shareholders Meeting.

The Company's articles of association state that the number of directors of the Company, who may be natural persons or legal entities and who need not be shareholders, must be at least 5. At least half of the members of the Board of Directors must be non-executive directors and at least three of them must be independent directors.

A meeting of the Board of Directors is validly constituted if at least half of its members are present in person or represented at the meeting. If this quorum is not met, a new board meeting may be convened by any director to deliberate and decide on the matters at the agenda of the board meeting for which a quorum was not met, provided that at least two members are present. Meetings of the Board of Directors are convened by the Chairman of the Board or the CFO or Chief Legal Officer, or by at least two directors, whenever the interest of the Company so requires. In principle, the Board of Directors will meet at least four times per year.

The Chairman of the Board of Directors shall have a casting vote on matters submitted to the Board of Directors in the event of a tied vote.

At the date of this registration document, the Board of Directors consists of 7 members, all of them are non-executive directors, including five independent directors. In accordance with the Art 7:86 of the BCCA, it is the willingness of the Company to aim for, in a reasonable timeframe, that a third of the Board member are of different sex, and actions were, are and will be taken in the short future to reach that objective.

Name	Position	Term	Board Committee Membership
Michel Lussier	Chairman	2020	Chairman of the Nomination and Remuneration Committee
LSS Consulting SPRL, represented by Christian Homsy	Non-executive director	2020	Chairman of the Strategy Committee

			Member of the Nomination and Remuneration Committee
Serge Goblet	Non-executive director	2020	
Chris Buyse	Independent director	2020	Chairman of the Audit Committee Member of the Nomination and Remuneration Committee Committee
Rudy Dekeyser	Independent director	2020	Member of the Nomination and Remuneration Committee Member of the Audit Committee
Hilde Windels [1]	Independent director	2022	Member of the Audit Committee
Margo Roberts[2]	Independent Director	2022	

[1] Hilde Windels has been appointed as Director of the Company on May 7, 2018

[2] Tolefi SA has resigned from the Board of Directors on 1st August 2018 and Margo Roberts has been co-opted as Director of the Company in replacement of Tolefi SA on the same date.

Unless otherwise stated, the address for its directors is Rue Edouard Belin 2, 1435 Mont-Saint-Guibert, Belgium.

The following paragraphs contain brief biographies of each of the directors, or in case of legal entities being director, their permanent representatives, with an indication of other relevant mandates as member of administrative, management or supervisory bodies in other companies during the previous five years.

Michel Lussier has served as Chairman of the board of directors of the Company since 2007 and is also a co-founder of the Company. Mr. Lussier founded Medpole Ltd, the North American satellite of MedPole SA, a European incubator for medical technology start-up companies located in Belgium, and serves as the Chief Executive Officer for the group. In this capacity, he is an advisor to Fjord Ventures, a Laguna Hills, California based medical technology accelerator / incubator. Mr. Lussier also serves as the Chief Executive Officer of Metronom Health Inc, an early stage medical device company founded by Fjord Ventures, developing a continuous glucose monitoring system. Prior to that, from 2002 to 2013, he worked for Volcano Corporation, where he served in a number of positions, most recently as President, Clinical and Scientific Affairs from 2012 to 2013, and prior to that from 2007 to 2012, Group President, Advanced Imaging Systems, Global Clinical & Scientific Affairs and General Management of Europe, Africa and the Middle East. Mr. Lussier obtained a Bachelor of Sciences degree in Electrical Engineering and Master's degree in Biomedical Engineering at the University of Montreal. He also holds an MBA from INSEAD (European Institute of Business Administration), France. In addition to serving on our board of directors, he also serves on the boards of directors of several early stage medical devices companies.

Christian Homsy (permanent representative of LSS consulting SPRL), is a founder of Celyad and has been serving as Chief Executive Officer (CEO). He was appointed Chairman of the Strategy Committee as of April 1st, 2019 and member of the Nomination and Remuneration Committee. Christian Homsy obtained his Medical Doctorate at the University of Louvain and holds an MBA from the IMD in Lausanne (Switzerland). Christian gained his business experience in senior

research and development, marketing, business development and sales positions at Guidant Corporation, a leading medical device company active in the treatment of cardiovascular disease. He was also founder of Guidant Institute for Therapy Development, a landmark facility for physician and health care professionals' education that gained international recognition and praise. Before starting Celyad, Christian Homsy was General Manager of Medpole, a European incubator dedicated to initiating the European operations for start-up companies in the medical device or biotechnology fields. He also holds a director mandate in Medpole SA.

Serge Goblet has served as a member of the board of directors of the Company since 2008. He holds a Master Degree in Business and Consular Sciences from ICHEC, Belgium and has many years of international experience as director in Belgian and foreign companies. He is the managing director of TOLEFI SA, a Belgian holding company and holds director mandates in subsidiaries of TOLEFI.

Chris Buyse has served as a member of the board of directors of the Company since 2008. He brings more than 30 years of international financial expertise and experience in introducing best financial management practices. He is currently Managing Director of FUND+, a fund that invests in innovative Belgian Life Sciences companies, Between August 2006 and June 2014, Mr. Buyse served as the Chief Financial Officer and board member of ThromboGenics NV, a leading biotech company that is listed on NYSE Euronext Brussels. Before joining ThromboGenics, he was the Chief Financial Officer of the Belgian biotech company CropDesign, where he coordinated the acquisition by BASF in July 2006. Prior to joining CropDesign he was financial manager of WorldCom/MCI Belux, a European subsidiary of one of the world's largest telecommunication companies and he was also the Chief Financial Officer and interim Chief Executive Officer of Keyware Technologies. Mr. Buyse holds a Master Degree in applied economic sciences from the University of Antwerp and an MBA from Vlerick School of Management in Gent. He currently serves, in his own name or as permanent representative of a management company, as member of the board of directors of the following publicly and privately held companies: Iteos SA, Bioxodes SA, Bio Incubator NV, Immo David NV, Pinnacle Investments SA, CreaBuild NV, Sofia BVBA, Pienter-Jan BVBA, Life Sciences Research Partners VZW , Inventiva SA, The Francqui Foundation and Keyware Technologies NV.

Rudy Dekeyser has served as a member of the board of directors of the Company since 2008. Since 2012 Rudy is managing partner of the LSP Health Economics Fund, a private equity fund investing in late stage European and North American health care companies. Prior to joining LSP, Rudy has been managing director of VIB (Flanders Institute for Biotechnology), where he was also responsible for the intellectual property portfolio, business development and new venture activities. He obtained a Ph.D. in molecular biology at the University Ghent. He holds non-executive director positions in Curetis AG, Sequana Medical AG and Remynd NV, and held non-executive director positions in Devgen NV, CropDesign NV, Ablynx NV, Actogenix NV, Pronota NV, Flandersbio VZW, Bioincubator Leuven NV, Multiplicom NV and Lumeon Inc. He is a co-founder of ASTP (the European associations of technology transfer managers) and Chairman of EMBLEM (EMBL's business arm). Rudy has been advisor to several seed and venture capital funds and to multiple regional and international committees on innovation.

Hilde Windels is CEO of Mycartis NV and member of its board of directors. Hilde brings 20 years of experience in biotech with a track record of business and corporate strategy, building and structuring organizations, private fundraising, mergers and acquisitions and public capital markets. Hilde has worked as CFO for several biotech companies, amongst those the Belgium based molecular Dx company Biocartis where she started as CFO in 2011. She transitioned to the co-CEO role in 2015 and CEO a.i. in 2017. She still serves as board member at Biocartis. In addition, Hilde is member of the boards of Erytech, MdxHealth and VIB. She holds a Masters in Economics (Commercial Engineer) from the University of Leuven (Belgium).

Margo Roberts Dr. Margo Roberts, Ph.D. has more than three decades of biomedical research experience in both biotechnology and academia. Dr Roberts is currently Chief Scientist Officer at Lyell Immunotherapy. She serves also on the board of directors of Unity Biotechnology, a US public company focused on developing medicines that slow or reverse age-associated diseases, and on the board of directors of InsTIL Bio, a US start up company focused on developing Timor infiltrating lymphocyte (TIL) - based therapies for the treatment of cancer. Until July 2018, Dr. Roberts served as Senior Vice President of Discovery Research at Kite Pharma focusing on the development of next generation therapeutic approaches, including heading up Kite's universal allogeneic T-cell programs. Prior that, in 2013, she was Chief Scientific Officer at Kite Pharma Inc., where she built a talented research organization that played an instrumental role in the successful development of Yescarta®, and the clinical advancement of additional CAR/TCR-engineered T-cell therapies. Prior to her tenure at Kite Pharma, Dr. Roberts was Principal Scientist and Director of Immune and Cell Therapy at Cell Genesys, Inc., where she led the development and application of CAR technology to T-cells and stem cells, culminating in the very first CAR T-cell trial initiated in 1994. Dr. Roberts was also an associate professor at the University of Virginia, has authored over 30 scientific publications, and is the inventor on 13 issued US patents and three published US patent applications related to CAR technology and tumor vaccine therapies. Dr. Roberts received both her Bachelor of Science degree with honors and her Ph.D. degree from the University of Leeds in England.

As of the date of this registration document, the directors have been holding the following companies mandates over the past five years:

Board mandates

Name of the company	Starting year of mandate	Current	Expired	Bankrupt or liquidated (Y/N)
Board Members				
MICHEL LUSSIER				
Biological Manufacturing Services SA	2018	Yes	No	No
iSTAR Medical	2014	Yes	No	No
Metronom health Inc	2014	Yes	No	No
Metronom Health Europe SPRL	2017	Yes	No	No
Medpole SA	2002	Yes	No	No
MEL Management	2017	Yes	No	No
RUDY DEKEYSER				
Curetis NV	2014	yes	No	No
Sequana Medical AG	2014	yes	No	No
Remynd NV	2010	yes	No	No
EMBLEM GmbH	2008	yes	No	No
Lumeon Inc.	2018	yes	No	No
R.A.D. Lifes sciences BVBA	2013	yes	No	No
CHRIS BUYSE				
Fund+ NV	2015	yes	No	No
Iteos therapeutics SA	2008	yes	No	No
Bone Therapeutics SA	2008		Expired on June 14, 2018	No
Inventiva SA (Fr)	2016	yes	No	No
CoBioRes NV	2014	yes	No	No
Bioxodes SA	2011	yes	No	No
Immo David NV	2005	yes	No	No
CreaBuild NV	2006	yes	No	No
Pinnacle Investments NV	2007	yes	No	No
Keyware Technologies NV	2005	yes	No	No
Bio Incubator NV	2008	yes	No	No
Ogeda SA	2016		expired in 2017	No
Thrombogenics NV	2006		expired in 2014	No
Sofia BVBA	1999	yes	No	No
Pienter Jan BVBA	2010	yes	No	No
HILDE WINDELS				
MDx Health NV	2017	yes	No	No
Mycartis NV	2017	yes	No	No

Biocartis Group	2018	yes	No	No
Erytech SA	2014	yes	No	No
VIB	2013	yes	No	No
BVBA Hilde Windels	2001	yes	No	No
Ablynx NV	2017		Expired 2018	No
Flanders Bio	2010		Expired 2014	No
MDx Health NV	2010		Expired 2011	No
Devgen NV	1999		Expired 2009	No
MARGO ROBERTS				
Unity Biotechnology	2018	yes	No	No
InsTIL Bio	2018	yes	no	No
SERGE GOBLET				
Tolefi SA	2014	yes	no	No
Essege SA	2014	yes	no	No
SG Holding SA	2014	yes	no	No
CarBoBois SA	2014	yes	no	No
Green Holding SA	2014	yes	no	No
Ligne Plus	2018	yes	no	No
Tecno Air System	2015	yes	no	No
Linea Plus	2012	yes	no	No
Tolefi Wellington	2014	yes	no	No
BioWay Holding	2014	yes	no	No
Green Real Estate	2014	yes	no	No
Le Haras des Isas	2014	yes	no	No
BSM Immo	2016	yes	no	No
Immobilière Levasseur	2017	yes	no	No

Director Independence

The independence criteria of Article 526ter of the BCCA can be summarized as follows:

- the director has not been an executive member of the board of directors, member of the management board ("*directiecomité / comité de direction*") (should such corporate body be created) or daily manager of the company (or an affiliate of the company, if any), during a term of five years prior to his or her election;

- the director has not been a non-executive director for more than three consecutive terms or during a period of more than 12 years;

- the director has not been a member of the managerial staff of the company (or an affiliate of the company, if any) during a term of three years prior to his or her election;

- the director does not receive and has not received any remuneration or other significant financial advantage from the company (or an affiliate of the company, if any), other than the profit share

("*tantièmes*") and remuneration received in his or her capacity as a non-executive director or as a member of the supervisory body;

- the director does not own any corporate rights that represent 10% or more of the share capital, of the corporate funds or of a category of its shares. If the director has corporate rights which represent less than 10%, then:
  - such rights, taken together with rights in the same company held by companies over which the director has control, may not represent 10% or more of the share capital, the corporate funds or of a category of its shares;
  - or the disposal of these shares, or the exercise of the rights attached thereto, may not be subject to agreements or unilateral commitments entered into by the director.
- the independent director in any case cannot represent a shareholder who falls under the conditions set forth in this criterion;
- the director does not and, during the past financial year, did not, have a significant business relationship with the company (or an affiliate of the company, if any), either directly or as a partner, shareholder, member of the board of directors or member of the managerial staff of a company or of a person that maintains such a relationship;
- the director is not and has not been at any time during the past three years, a partner or an employee of its current or former statutory auditor or of a company or person affiliated therewith;
- the director is not an executive director of another company in which an executive director of the company is a non-executive director or a member of the supervisory body, and has no other significant ties with executive directors of the company through his or her involvement in other companies or bodies;
- the director's spouse, unmarried legal partner and relatives (via birth or marriage) up to the second degree do not act as a member of the board of directors, member of the management board ("*directiecomité / comité de direction*") (should such corporate body be created) or daily manager or member of the managerial staff in the company (or an affiliate of the company, if any), and do not meet one of the criteria set out above.

Role of the Board in Risk Oversight

The board of directors is primarily responsible for the oversight of its risk management activities and has delegated to the audit committee the responsibility to assist its board of directors in this task. While its board oversees its risk management, its management is responsible for day-to-day risk management processes. Its board of directors expects its management to consider risk and risk management in each business decision, to proactively develop and monitor risk management strategies and processes for day-to-day activities and to effectively implement risk management strategies adopted by the board of directors. The Company believes this division of responsibilities is the most effective approach for addressing the risks the Company face.

Board Practices

Without prejudice to the role, responsibilities and functioning of the Executive Management Team as set out below under section “Executive Management Team”, the Board of Directors may set up specialised committees to analyse specific issues and advise the Board of Directors on those issues. Such committees are advisory bodies only and the decision-making remains the collegiate responsibility of the Board of Directors. The Board of Directors determines the terms of reference of each committee with respect to the organisation, procedures, policies and activities of the committee.

Committees

Audit Committee

"Large" listed companies (as defined in Article 7:99 of the BCCA) are legally obliged to establish an audit committee within their board of directors. Although the Company does not currently qualify as a "large" company, the board of directors has established an audit committee on 6 March 2015. At the date of this report, the audit committee consists of 3 members: Chris Buyse, Rudy Dekeyser and Hilde Windels.

The role of the audit committee is to ensure the effectiveness of the internal control and risk management systems, the internal audit (if any) and its effectiveness and the statutory audit of the annual and consolidated accounts, and to review and monitor the independence of the external auditor, in particular regarding the provision of additional services to the Company. The audit committee reports regularly to the board of directors on the exercise of its functions. The audit committee informs the board of directors about all areas in which action or improvement is necessary in its opinion and produces recommendations concerning the necessary steps that need to be taken. The audit review and the reporting on that review cover the Company and its subsidiaries as a whole. The members of the audit committee are entitled to receive from the board of directors, executive committee and employees, all information which they need for the performance of their function. Each member of the audit committee shall exercise this right in consultation with the chairman of the audit committee.

The audit committee’s duties and responsibilities to carry out its purposes include, among others: the financial reporting, internal controls and risk management, and the internal and external audit process. These tasks are further described in the audit committee terms and conditions as set out in the Charter and in the Article 526bis of the Belgian Company Code.

Chris Buyse has been nominated as Chairman of the committee, having the necessary expertise in accounting and audit matters. The Audit Committee holds a minimum of four meetings a year.

Nomination and Remuneration Committee

"Large" listed companies (as defined in Article 7:100 of the BCCA) are legally obliged to establish a remuneration committee within their board of directors. Although the Company does not currently qualify as a "large" company, the Board of Directors has voluntarily set up a remuneration committee. As the remuneration committee also performs the task of a nomination committee, it is called the Nomination and Remuneration Committee.

The Nomination and Remuneration Committee will consist of not less than three directors, or such greater number as determined by the Board of Directors at any time. All members must be non-executive directors and at least a majority of its members must be independent.

The Nomination and Remuneration Committee must have the necessary expertise as regards the remuneration policy, and this condition is fulfilled if at least one member has had a higher education and has had at least three years of experience in personnel management or in the field of remunerating directors and managers.

The CEO has the right to attend the meetings of the Nomination and Remuneration Committee in an advisory and non-voting capacity on matters other than those concerning himself. The Nomination and Remuneration Committee will elect a chairman from amongst its members. The Chairman of the Nomination and Remuneration Committee is actually Michel Lussier.

The role of the Nomination and Remuneration Committee is to assist the Board of Directors in all matters:

- relating to the selection and recommendation of qualified candidates for membership of the Board of Directors;
- relating to the nomination of the CEO;
- relating to the nomination of the members of the Executive Management Team, other than the CEO, upon proposal by the CEO;
- relating to the remuneration of independent directors;
- relating to the remuneration of the CEO;
- relating to the remuneration of the members of the Executive Management Team, other than the CEO, upon proposal by the CEO;
- on which the Board of Directors or the Chairman of the Board of Directors requests the Nomination and Remuneration Committee's advice.

Additionally, with regard to matters relating to remuneration, except for those areas that are reserved by law to the Board of Directors, the Nomination and Remuneration Committee will at least have the following tasks:

- preparing the remuneration report (which is to be included in the Board of Director's corporate governance statement); and
- explaining its remuneration report at the Annual General Shareholders Meeting.

It will report to the Board of Directors on the performance of these tasks on a regular basis. These tasks are further described in the terms of reference of the Nomination and Remuneration Committee as set out in the Charter. The Nomination and Remuneration Committee will meet at least twice per year, and whenever it deems it necessary to carry out its duties.

The following directors are currently member of the Nomination and Remuneration Committee: Michel Lussier (Chairman), Chris Buyse and Rudy Dekeyser.

8.2. Executive Management Team

The Board of Directors has established an executive management team. The terms of service of the executive management team have been determined by the Board of Directors and are set out in the Charter.

The Executive Management Team consists of the "Chief Executive Officer" (CEO, who is the chairman of the Executive Management team), the "Chief Financial Officer" (CFO), the "Chief Operating

Officer", the "Chief Legal Officer", the "Vice President Clinical Development and Medical Affairs", the "Vice President Research & Development" and the Global Head of Human Resources.

The Executive Management Team discusses and consults with the Board of Directors and advises the Board of Directors on the day-to-day management of the Company in accordance with the Company's values, strategy, general policy and budget, as determined by the Board of Directors.

Each member of the Executive Management Team has been made individually responsible for certain aspects of the day-to-day management of the Company and its business (in the case of the CEO, by way of delegation by the Board of Directors; in the case of the other member of the Executive Management Team, by way of delegation by the CEO). The further tasks for which the Executive Management Team is responsible are described in greater detail in the terms of reference of the Executive Management Team as set out in the Charter.

The members of the Executive Management Team are appointed and may be dismissed by the Board of Directors at any time. The Board of Directors appoints them following the recommendation of the Nomination and Remuneration Committee, which shall also assist the Board of Directors on the remuneration policy of the members of the Executive Management Team, and their individual remunerations.

The remuneration, duration and conditions of dismissal of Executive Management Team members is governed by the contract entered into between the Company and each member of the Executive Management Team in respect of their function within the Company.

In accordance with Shedule C, Section F, subsection 7 of the Charter, all contracts with members of the Executive Management Team entered into on or after 1 July 2009 must refer to the criteria to be taken into account when determining variable remuneration and contain specific provisions relating to early termination. In principle, the Executive Management Team meets every month. Additional meetings may be convened at any time by the Chairman of the Executive Management Team or at the request of two of its members. The Executive Management Team will constitute a quorum when all members have been invited and the majority of the members are present or represented at the meeting. Absent members may grant a power of attorney to another member of the Executive Management Team. Members may attend the meeting physically or by telephone or video conference. The absent members must be notified of the discussions in their absence by the Chairman (or the Company Secretary, if the Executive Management Team has appointed a Company Secretary from among its members).

The members of the Executive Management Team must provide the Board of Directors with information in a timely manner, if possible in writing, on all facts and developments concerning the Company which the Board of Directors may need in order to function as required and to properly carry out its duties. The CEO (or, in the event that the CEO is not able to attend the Board of Directors' meeting, the CFO or, in the event that the CFO is not able to attend the Board of Directors' meeting, another representative of the Executive Management Team) must report at every ordinary meeting of the Board of Directors on the material deliberations of the previous meeting(s) of the Executive Management Team.

The current members of the Executive Management Team are listed in the table below.

Name	Function	Year of birth
Filippo Petti	Chief Executive Officer Chief Financial Officer	1976
KNCL SPRL, represented by Jean-Pierre Latere	Chief Operating Officer	1975
NandaDevi SPRL, represented by Philippe Dechamps	Chief Legal Officer	1970
MC Consult, represented by Philippe Nobels	Global Head of Human Ressources	1966
ImXense SPRL, represented by Frederic Lehmann	Vice President Clinical Development & Medical Affairs	1964
David Gilham	Vice President Research & Development	1965

LSS Consulting SPRL, represented by Christian Homsy, has served as CEO of the Company until 31st March 2019. LSS Consulting SPRL continued as non-executive director and supports the new CEO in his new functions on an as needed basis.

PaJe SPRL, represented by Patrick Jeanmartt, has served as CFO of the Company until 31 August 2018. PaJe SPRL remained advisor of the Company through 31 December 2018 to ensure a smooth and effective transition with Filippo Petti.

The following paragraphs contain brief biographies of each of the members of the Executive Management Team or in case of legal entities being a member of the Executive Management Team or key manager, their permanent representatives.

Filippo Petti, CEO and ad-interim CFO, joined Celyad in September 2018 as the Chief Financial Officer. Prior to joining the Company, Mr. Petti worked in healthcare investment banking both at Wells Fargo Securities and William Blair & Company. Prior to his roles in investment banking, Filippo spent several years in equity research covering U.S. biotechnology companies both at William Blair & Company and Wedbush Securities. He began his career as a research scientist at OSI Pharmaceuticals, Inc. focused on drug discovery and translational research before transitioning into corporate development with the company. Mr. Petti holds a Master of Business Administration from Cornell University, a Master of Science from St. John's University and a Bachelor of Science from Syracuse University. Mr. Petti serves as CEO since 1st April 2019 and will serve as interim CFO until the Company appoints a permanent successor for the role.

Jean-Pierre Latere (representative of KNCL SPRL), has previously acted as Vice President of Regenerative Medicine and Medical Devices franchise. Since January 2017 he serves as Chief Operating Officer in charge of program management, manufacturing, quality, clinical operations and regulatory affairs. He leads the effort to further strengthen the organization as the Company grows as a leader in immuno-oncology. He started his career as a Research Associate at the Michigan State University in the US. Following that assignment, he moved to the Johnson & Johnson group where he held various positions, from Scientist to Senior Scientist. He then joined Celyad in 2008 as Project Manager Delivery System and left the company in 2012 in the position of Senior Director Business Development. Prior to

joining Celyad, Jean-Pierre served as Beauty Care and Healthcare Market Global Leader at Dow Corning. Jean-Pierre holds a PhD in Chemistry from the University of Liège, Belgium.

Philippe Dechamps (representative of NandaDevi SPRL), has served as Chief Legal Officer since September 2016. Philippe started his legal career as an associate in Brussels with the law firm Linklaters De Bandt from 1994 to 1998. He left private practice in 1998 and until 2003, he served as an in-house counsel at Solvay Group to assist the company in its turnaround through several M&A operations in Europe, India and Far-East Asia. In 2003, he took over the position of Legal Director at Guidant, the US company formerly active in the medical devices business before its acquisition by Boston Scientific and Abbott Laboratories in 2005. Within Abbott, Philippe took over responsibility for the legal affairs of Abbott Vascular International outside of the United States. In 2008, Philippe joined Delhaize Group taking responsibility for the legal and government affairs in Europe and Asia, before becoming Group General Counsel and Secretary to the Board of Directors in 2015. In this position, he piloted the legal strategy to merge Delhaize Group with Royal Ahold in July 2016. Since December 2018, Philippe is also member of the Board of Directors of Petserco SA, the holding company of the Tom&Co group. Philippe earned law degrees from the Université Catholique de Louvain (UCL) and Vrije Universiteit Brussel (VUB), and a Masters of Law (LL.M) from Harvard University.

Philippe Nobels (representative of MC Consult SPRL) has served as Global Head of Human Ressources since October 2016. He started his career at Price Waterhouse (now PwC) as auditor in 1989. He also went in rotational assignment in Congo during 2 years on consulting missions for the World Bank. In 1995, he joined Fourcroy as plant controller. Then, he joined Dow Corning in 1997 where he held different positions in Finance and Human Resources. He led the HR operations in Europe, became the HR manager for Dow Corning in Belgium, and HR Business Partner for the sales and marketing functions globally. As a member of the sales and marketing Leadership teams, he contributed to the company's major transformation initiatives to increase organizational effectiveness, employees' engagement & performance as well as Business results. Philippe hold a Master Degree in Economics from the University of Namur.

Frédéric Lehmann (representative of ImXense SPRL), has served as the Vice President Clinical Development & Medical Affairs since July 2016 and prior to that he has served as the Vice President Immuno-Oncology since September 2015. Dr. Lehmann is a physician by training, specialized in hematology and oncology. Dr. Lehmann has extensive experience in oncology drug development spanning early to late phase, including clinical trial design, translational research, regulatory interactions, and clinical risk management. He started his academic career at the Ludwig Institute for Cancer Research in Brussels, followed by a position at the Institute Jules Bordet. He then moved to the European Organization for Research and Treatment of Cancer (EORTC) as Medical Advisor. Dr. Lehmann began his corporate career at GlaxoSmithKline, where he led the early worldwide clinical development program for the Company's cancer vaccines and went on to lead the research and development incubator for cancer immunotherapeutics.

David Gilham, has served as Vice President Research and Development since September 2016. Prior to joining the company, David was a Reader and Group Leader within the Manchester Cancer Research Centre at the University of Manchester, UK leading a research group of 15 scientists in the area of cellular immunotherapy. David obtained his Ph.D from the University of Dundee in 1998 in Molecular Pharmacology under the supervision of Professor Roland Wolf, OBE. After a short post-doctoral position at the University of Bristol, David moved to the University of Manchester with Professor Robert Hawkins to establish translational research activity in the field of engineered cellular therapy. The group has carried out several clinical trials of CAR-T cells of which David has been Lead scientific advisor

and led several European framework programs bringing together researchers from all over Europe (ATTACK and ATTRACT programs). In 2010, along with Professor Hawkins and other colleagues, David co-founded Cellular Therapeutics, a cell production company based in Manchester. He has published more than 60 peer reviewed articles and further book chapters and reviews. He has also sat on many review boards and charity grant committees and consulted for several biotechs and pharma concerning immune cell therapies.

As of the date of this registration document, the list of company mandates hold by the Executive Management Team is as follows:

Name of the company	Starting year of mandate	Current	Expired	Bankrupt or liquidated (Y/N)
Filippo Petti				
Biological Manufacturing Services SA				
Celyad Inc.				
Jean-Pierre Latere				
KNCL SPRL	2016	Yes	No	No
Frédéric Lehmann				
ImXsense sprl	2015	Yes	No	No
David Gilham				
N/A				
Philippe Dechamps				
Nandadevi SPRL	2016	Yes	No	No
Petserco SA	2018	Yes	No	No
Biological Manufacturing Services SA	2018	Yes	No	No
Philippe Nobels				
MC CONSULT SPRL	2016	Yes	No	No

8.3. General Information About the Company's Directors and Members of Executive Management Team

As of the date of this registration document and except as set out below, none of the directors or members of its executive management team for at least the previous five years:

- holds any convictions in relation to fraudulent offenses;
- holds an executive function in the form of a senior manager or a member of the administrative, management or supervisory bodies of any company at the time of or preceding any bankruptcy, receivership or liquidation;
- has been subject to any official public incrimination and/or sanction by any statutory or regulatory authority (including any designated professional body); or
- has ever been disqualified by a court from acting as member of the administrative, management or supervisory bodies of any company or from acting in the management or conduct of affairs of any company.
-

8.4. Family Relationships

There are no family relationships among any of the members of its executive management team or directors.

8.5. Corporate Governance Practices

Along with its Articles of Association, the Company adopted a corporate governance charter in accordance with the recommendations set out in the Belgian Corporate Governance Code issued on 12 March 2009 by the Belgian Corporate Governance Committee. The Belgian Corporate Governance Code is based on a "comply or explain" system: Belgian listed companies are expected to follow the Belgian Corporate Governance Code, but can deviate from specific provisions and guidelines (though not the principles) provided they disclose the justification for such deviations.

Its Board of Directors complies with the Belgian Corporate Governance Code, but believes that certain deviations from its provisions are justified in view of its particular situation.

These deviations include the grant of options or warrants to non-executive directors. In this way, the Company has additional possibilities to attract or retain competent non-executive directors and to offer them an attractive additional remuneration without the consequence that this additional remuneration weighs on its financial results. Furthermore, the grant of warrants is a commonly used method in the sector in which the Company operates. Without this possibility, the Company would be subject to a considerable disadvantage compared to competitors who do offer warrants to their non-executive directors. Its Board of Directors is of the opinion that the grant of options or warrants has no negative impact on the functioning of the non-executive directors.

Its Board of Directors reviews its corporate governance charter from time to time and makes such changes as it deems necessary and appropriate. Additionally, its board of directors adopted written terms of reference for each of the executive management team, the audit committee and the nomination and remuneration committee, which are part of the corporate governance charter.

8.6. Code of Business Conduct and Ethics

In 2015, Celyad adopted a Code of Business Conduct and Ethics, or the Code of Conduct, that is applicable to all of its employees, members of its executive management team and directors. It has been updated on 5 October 2018. The Code of Conduct is on its website at https://www.celyad.com/en/investors/corporate-governance. The audit committee of its board of directors is responsible for overseeing the Code of Conduct and is required to approve any waivers of the Code of Conduct for employees, members of its executive management team and directors.

8.6.1. Market abuse regulations

On 17 June 2013, the Board of the Company defined specific rules to prevent the illegal use of inside information by board members, shareholders, managers and employees or the appearance of such use ("the Market Abuse Policy"). The Market Abuse Policy has been amended by a resolution of the Board of Directors on 7 December 2017.

These prohibitive provisions and the monitoring of compliance with them are primarily intended to protect the market. To ensure that the law is respected and to uphold the reputation of the Company, it is therefore necessary to take a number of preventive measures in the form of a code of conduct.

The Rules apply to all Insiders. An Insider can be given access to inside information within the scope of the normal performance of his or her duties. The insider has the strict obligation to treat this information confidentially and is not allowed to trade financial instruments of the Company to which this inside information relates.

In accordance with art 25bis §1 of the law of 2 August 2002 and the MAR, the Company has established a list of persons in the Company who, based on an employment or service agreement, have contracted with the Company and have during the course of their duties access to inside information directly or indirectly. This list is updated regularly and remains at the disposal of the FSMA for a period of 5 years.

8.6.2. Corporate Governance Charter

The Company's Board of Directors complies with the Charter.

In particular: non-executive directors receive fixed remuneration in consideration of their membership of the Board of Directors and their attendance at committee meetings of which they are members. Directors are not entitled to any variable remuneration and they will not receive any performance related remuneration.

In accordance with the CGC, the Board of Directors of the Company will review its Charter from time to time and make such changes as it deems necessary and appropriate. The Charter, together with the Company's articles of association, is available on the Company's website (www.celyad.com) and can be obtained free of charge at the registered office of the Company. The Charter has been updated by resolution of the Board of Directors on 5 October 2018.

8.7. Conflict of Interest of directors and members of the executive team and transactions with affiliated companies

8.7.1. General

Each director and member of the Executive Management Team is encouraged to arrange his or her personal and business affairs so as to avoid direct and indirect conflicts of interest with the Company. The Company's corporate governance charter contains specific procedures to deal with potential conflicts.

8.7.2. Conflicts of interest of directors

Article 9:96 of the BCCA provides for a special procedure within the Board of Directors in the event of a possible personal financial conflict of interest of one or more directors with one or more decisions or transactions to be adopted by the Board of Directors. In the event of a conflict of interest, the director concerned must inform his or her fellow directors of his or her conflict of interest before the Board of Directors deliberates and takes a decision in the matter concerned. Furthermore, the conflicted director may not participate in the deliberation and voting by the Board of Directors on the matter that gives rise to the potential conflict of interest. The minutes of the meeting of the Board of Directors must contain the relevant statements made by the conflicted director, as well as a description by the Board of Directors of the conflicting interests and the nature of the relevant decision or transaction to be adopted. The minutes must also contain a justification by the Board of Directors for the decision or transaction adopted, and a description of the financial consequences thereof for the company. The relevant minutes must be included in the (statutory) annual report of the Board of Directors.

The conflicted director must notify the Statutory Auditor of the conflict. The Statutory Auditor must describe in its statutory annual audit report the financial consequences of the decision or transaction that gave rise to the potential conflict.

This procedure does not apply to decisions or transactions in the ordinary course of business at customary market conditions.

8.7.3. Existing conflicts of interest of members of the Board of Directors

Except as reported hereinafter, as far as the Company is aware, none of the directors have a conflict of interest within the meaning of Article 7:96 of the BCCA which has not been disclosed to the Board of Directors. Other than potential conflicts arising in respect of compensation-related matters, the Company does not foresee any other potential conflicts of interest in the near future.

In 2018, certain members of the Board declared a conflict of interest. The following declaration were made in that respect (excerpt from the minutes of the Board meeting of October 5, 2018):

"The Board discussed the allocation of warrants to new Board members:

- *Hilde Windels (10,000 warrants);*
- *Margo Roberts (10,000 warrants).*

The warrants will be issued under a new plan to be adopted in the 4th quarter of 2018. Each warrant will give the right to its owner to acquire one new share of the Company. The exercise price will be equal to the fair market value of the Company's shares at the time of the offer, this value corresponding either to the closing price of the share on the day before the date of the offer or to the average closing price of the share during a period of 30 days before the offer date. Furthermore, as allocated to non-employees, the exercise price shall not be below the average of the 30 calendar days preceding the date of issuance of the warrants.
The article 523, paragraph 1, of the Company Code provides that "If a director has, directly or indirectly, a conflicting financial interest in a decision or operation to be decided by the board of directors, he has to inform the other directors before the deliberation of the board of directors. His declaration, including the reasons for his conflicting financial interest, must be recorded in the minutes of the board meeting that will take [...] the decision. The auditor must also be informed. (…) In listed companies, the concerned directors cannot deliberate nor vote on the concerned decisions".
Hilde Windels was absent of the meeting.
Margo Roberts informed the other directors that she has a conflicting financial interest in the decision proposed.
The Chairman thanked Margo Roberts for her declaration. This declaration will be communicated to the statutory auditor of the Company and inserted in the annual report 2018 in accordance with Article 523 of the Company Code.
The Board unanimously approved the allocation of 10,000 warrants to Hilde Windels.
Margo Roberts left the meeting room and the Board unanimously approved the allocation of 10,000 warrants to Margo Roberts. Margo Roberts then came back in the meeting room."

Furthermore, the following declarations were made during the Board meeting of 28 March 2019:

"*Article 523, paragraph 1, of the Company Code provides that "If a director has, directly or indirectly, a conflicting financial interest in a decision or operation to be decided by the board of directors, he has to inform the other directors before the deliberation of the board of directors. His declaration, including the reasons for his conflicting financial interest, must be recorded in the minutes of the board meeting that will take the decision. The auditor must also be informed. (…) In listed companies, the concerned directors cannot deliberate nor vote on the concerned decisions".*

Mr. Debasish Roychowdhury informed the other directors that he is in a position of conflict of interest with respect to the decision proposed under point 2.2 of the agenda. It is proposed by the Nomination and Remuneration Committee to grant a forward vesting to Mr. Roychowdhury further to the termination of his mandate as director. This forward vesting would not have direct financial impact on the Company.

The Chairman thanks Mr. Debasish Roychowdhury for his declaration, it will be mentioned in the management report and communicated to the Statutory Auditor of the Company in accordance with Article 523 of the Company Code.

LSS Consulting SPRL, represented by Mr. Christian Homsy, informed the other directors that he is in a position of conflict of interests with respect to the decision proposed under point 2.2 of the agenda. This point of the agenda relates to the terms and conditions of the termination of the CEO position of LSS Consulting SPRL. It is proposed by the Nomination and Remuneration Committee to pay to LSS Consulting SPRL a termination fee of EUR 300,000 (excluding VAT) and to conclude a short term services agreement with an lump sum EUR 70,000 (excluding VAT) fee.

The Chairman thanks Mr. Debasish Roychowdhury for his declaration, it will be mentioned in the management report and communicated to the Statutory Auditor of the Company in accordance with Article 523 of the Company Code."

8.7.4. Related Party Transactions

Currently, no related party transaction involving the company's directors or senior executive management has been disclosed to the Company.

8.7.5. Transactions with affiliates

The Article 524 of the Belgian Company Code provides for a special procedure that applies to intra-group or related party transactions with affiliates. The procedure will apply to decisions or transactions between the Company and affiliates of the Company that are not a subsidiary of the Company. It will also apply to decisions or transactions between any of the Company's subsidiaries and such subsidiaries' affiliates that are not a subsidiary of the Company.

Prior to any such decision or transaction, the Board of Directors of the Company must appoint a special committee consisting of three independent directors, assisted by one or more independent experts. This committee must assess the business advantages and disadvantages of the decision or transaction for the Company. It must quantify the financial consequences thereof and must determine whether or not the decision or transaction causes a disadvantage to the Company that is manifestly illegitimate in view of

the Company's policy. If the committee determines that the decision or transaction is not manifestly illegitimate, but is of the opinion that it will prejudice the Company, it must clarify which advantages are taken into account in the decision or transaction to compensate the disadvantages. All these elements must be set out in the committee's advice. The Board of Directors must then take a decision, taking into account the opinion of the committee. Any deviation from the committee's advice must be explained. Directors who have a conflict of interest are not entitled to participate in the deliberation and vote. The committee's advice and the decision of the Board of Directors must be communicated to the Company's Statutory Auditor, who must render a separate opinion. The conclusion of the committee, an excerpt from the minutes of the Board of Directors and the opinion by the Statutory Auditor must be included in the (statutory) annual report of the Board of Directors.

The procedure does not apply to decisions or transactions in the ordinary course of business at customary market conditions, and transactions or decisions with a value of less than 1% of the consolidated net assets of the Company.

8.8. Compensation of Directors and Executive Management Team

Please refer to Section 14.8

8.9. Dividend policy

The Company has never declared or paid any cash dividends on its ordinary shares. The Company does not anticipate paying cash dividends on its equity securities in the foreseeable future and intend to retain all available funds and any future earnings for use in the operation and expansion of its business. In general, distributions of dividends proposed by the board of directors require the approval of the shareholders at a meeting of shareholders with a simple majority vote, although the board of directors may declare interim dividends without shareholder approval, subject to the terms and conditions of the BCCA.

Pursuant to Belgian law, the calculation of amounts available for distribution to shareholders, as dividends or otherwise, must be determined on the basis of its non-consolidated statutory financial accounts prepared under Belgian GAAP, and not on the basis of IFRS consolidated accounts. In addition, under the BCCA, the Company may declare or pay dividends only if, following the declaration and issuance of the dividends, the amount of its net assets on the date of the closing of the last financial year according to its statutory annual accounts (i.e., the amount of the assets as shown in the balance sheet, decreased with provisions and liabilities, all as prepared in accordance with Belgian accounting rules), decreased with the non-amortized costs of incorporation and expansion and the non-amortized costs for research and development, does not fall below the amount of the paid-up capital (or, if higher, the called capital), increased with the amount of non-distributable reserves. Finally, prior to distributing dividends, the Company must allocate at least 5% of its annual net profits (under its non-consolidated statutory accounts prepared in accordance with Belgian accounting rules) to a legal reserve, until the reserve amounts to 10% of its share capital

8.10. Absence of conviction and official public incrimination

All directors and members of the Executive Management Team have confirmed to the Company the absence of (i) any convictions in relation to fraudulent offenses during the past five years or (ii) any official public incrimination and/or sanctions of such members by statutory or regulatory authorities (including designated professional bodies), or disqualification by a court from acting as a member of

the administrative, management or supervisory body of an issuer or from acting in the management or conduct of the affairs of any issuer during the past five years.

Furthermore, during the last 12 months preceding this report, the Company did not face legal or arbitration proceedings which may have or have had significant effects on the Company.

9. EMPLOYEES

As of 31 December 2018, the Company employed 85 full-time employees, four part-time employees and seven senior managers . Celyad has never had a work stoppage, and none of its employees is represented by a labour organization or under any collective-bargaining arrangements. The Company considers its employee relations to be good.

A split of its employees and consultants by main department and geography for the years ended 31 December 2018, 2017 and 2016 was as follows:

	At December 31,		
	2018	2017	2016
By function:			
Clinical & Regulatory, IP, Marketing	19	16	15
Research & Development	30	29	29
Manufacturing /Quality	34	26	31
General Administration	13	16	13
Total	**96**	**87**	**88**
By Geography:			
Belgium	91	83	83
United States	5	4	5
Total	**96**	**87**	**88**

10. MAJOR SHAREHOLDERS

The information in the table below is based on information known to the Company or ascertained by the Company from public filings made by the shareholders as of the date of this registration document, updated, as the case may be. Except as otherwise indicated in the table below, addresses of the directors, members of the executive management team and named beneficial owners are in care of Rue Edouard Belin 2, 1435 Mont-Saint-Guibert, Belgium.

Except as otherwise indicated, all of the shares reflected in the table are ordinary shares and all persons listed below have sole voting and investment power with respect to the shares beneficially owned by them, subject to applicable community property laws. The information is not necessarily indicative of beneficial ownership for any other purpose. On 23 May 2019 the Shareholders' Meeting decided to voluntarily "opt in" and submit the Company to the new Belgian Code of Companies and Associations. Furthermore, the Shareholders' Meeting decided to activate the possibility offered by Article 7:53 of the code of companies and associations and approved the grant of double voting right to the registered shares held by a shareholders in a registered form for more than two years. At the date of this registration document, the shares held by the persons listed below do not have double voting rights.

In computing the number of ordinary shares beneficially owned by a person and the percentage ownership of that person, the Company deemed outstanding ordinary shares subject to warrants held by that person that are immediately exercisable. We did not deem these shares outstanding, however, for the purpose of computing the percentage ownership of any other person. The information in the table below is based on information known to the Company or ascertained by the Company from public filings made by the shareholders.

NAME OF BENEFICIAL OWNER	SHARES BENEFICIALLY OWNED	
	Number	Percentage
TOLEFI SA, represented by Serge Goblet	2,295,701	19.22%
Victory Capital Management Inc	600,376	5.03%
Directors and Members of the Executive Management Team		
Michel Lussier [1]	153,550	1.29%
Serge Goblet	56,180	0.47%
Hanspeter Speck	—	—
Rudy Dekeyser	—	—

NAME OF BENEFICIAL OWNER	SHARES BENEFICIALLY OWNED	
	Number	Percentage
Chris Buyse	—	—
Christian Homsy[2]	132,500	1.11%
Philippe Dechamps	—	—
Philippe Nobels	—	—
David Gilham	—	—
Frederic Lehman	—	—
Jean-Pierre Latere	—	—

[1] Of which 145,150 are ordinary shares and 8,000 are ADSs.

[2] Of which 129,500 are ordinary shares and 3,000 are ADSs.

Each of its shareholders is entitled to one vote per ordinary share. None of the holders of its shares have different voting rights from other holders of shares.

The Company is not aware of any arrangement that may, at a subsequent date, result in a change of control of the Company.

At the date of this registration document the Company is not controlled under articles 5 and following of the Companies Code.

11. FINANCIAL STATEMENTS : GENERAL

On 28 March 2019, the Board of Directors made up the financial statements and the statutory financial statements of the Company with respect to the financial year ended on 31 December 2018.

The financial statements can be found under section 12; an extract of the statutory financial statements can be found under section 13.

The management report on the consolidated financial statements and on the statutory financial statements can be found on the website of the Company on www.celyad.com.

The financial statements of the Company with respect to the financial years ended 31 December 2016, 31 December 2017 and 31 December 2018 were prepared in accordance with the International Financial Reporting Standards as endorsed by the European Union (IFRS). They have all been audited by the auditor.

This registration document, together with the complete version of the statutory financial statements of the Company with respect to the financial year ended on 31 December 2018, the management report of the Board of Directors on the consolidated financial statements and the statutory financial statements, and the auditor' report on the statutory financial statements are made available on the website of the Company (www.celyad.com) and can be obtained free of charge.

Certain financial information in this registration document has been subject to rounding adjustments and currency conversion adjustments. Accordingly, the sum of certain data may not be equal to the expressed total.

12. CONSOLIDATED FINANCIAL STATEMENTS

12.1. Responsibility Statement

We hereby certify that, to the best of our knowledge, the consolidated financial statements as of 31 December 2018, prepared in accordance with the International Financial Reporting Standards, as adopted by the European Union, and the legal requirements applicable in Belgium, give a true and fair view of the assets, liabilities, financial position and loss of the Group and the undertakings included in the consolidation taken as a whole, and that the management report includes a fair review of the development and the performance of the business and the position of the Group and the undertakings included in the consolidation taken as a whole, together with a description of the principal risks and uncertainties that they face.

On behalf of the Board of Directors,

Michel Lussier

LSS Consulting SPRL

Christian Homsy

12.2. Statutory Auditor's Reports For The Years Ended 31 December 2017 And 2018

A. Year 2017

In the context of the statutory audit of the consolidated financial statements of Celyad S.A. (the Company) and its subsidiaries (together referred to as 'the Group'), we hereby present our statutory auditor's report. It includes our report on the audit of the consolidated financial statements as well as our report on the other legal and regulatory requirements. These reports form part of an integrated whole and are indivisible.

We have been appointed as statutory auditor by the general meeting of May 5, 2017, following the proposal formulated by the board of directors issued upon recommendation of the audit committee. Our statutory auditor's mandate expires on the date of the general meeting deliberating on the annual accounts closed on December 31, 2019. We have performed the statutory audit of the consolidated financial statements of Celyad S.A. for one year.

Report on the audit of the consolidated financial statements

Unqualified opinion

We have performed the statutory audit of the Group's consolidated financial statements, which comprise the consolidated statement of financial position as at December 31, 2017, and the consolidated statement of profit or loss and other comprehensive income, the consolidated statement of changes in equity and the consolidated statement of cash flows for the year then ended, and notes to the consolidated financial statements, including a summary of significant accounting policies and other explanatory information, and which is characterised by a consolidated statement of financial position total of 77.626 (000) EUR and for which consolidated statement of profit or loss and other comprehensive income shows a loss for the year of 57.164 (000) EUR.

In our opinion, the consolidated financial statements give a true and fair view of the Group's net equity and financial position as at December 31, 2017, as well as of its consolidated financial performance and its consolidated cash flows for the year then ended, in accordance with International Financial Reporting Standards (IFRS) as adopted by the European Union and with the legal and regulatory requirements applicable in Belgium.

Basis for unqualified opinion

We conducted our audit in accordance with International Standards on Auditing (ISAs) as applicable in Belgium. Our responsibilities under those standards are further described in the *'Statutory auditor's responsibilities for the audit of the consolidated financial statements*' section in this report. We have complied with all the ethical requirements that are relevant to the audit of consolidated financial statements in Belgium, including those concerning independence.

We have obtained from the board of directors and company officials the explanations and information necessary for performing our audit.

We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our opinion.

Key audit matters

Key audit matters are those matters that, in our professional judgment, were of most significance in our audit of the consolidated financial statements of the current year. These matters were addressed in the context of our audit of the consolidated accounts as a whole, and in forming our opinion thereon, and we do not provide a separate opinion on these matters.

Financial funding

Description of the matter

As described in Note 1.7 of the consolidated financial statements, the Company has disclosed that based on its current scope of activities, the Group estimates that its treasury position as of 31 December 2017 (including short term investments) is sufficient to cover its cash requirements at least until end of the first quarter of 2019, so that there is no going concern issue at this moment.

Given the high cash burn ratio that is inherent to the sector the Company is operating in, we consider financial funding a key audit matter requiring high auditors' attention.

Procedures performed

Our audit procedures included, among others, the following:

- We obtained the business plan and the cash forecast for the year 2018 and 2019 and reviewed it for reasonableness;
- We challenged the assumptions underlying this budget and cash forecast, especially with respect to the expected level of operating expenses and revenues;
- We compared the total of expected revenues included in the budget and cash forecast with those expected from existing agreements;
- We discussed with management any potential future financing possibilities and assessed their reasonableness.

Goodwill and intangible assets impairment

Description of the matter

As described in Note 5.6.2 of the consolidated financial statements, the Group is required to annually test its intangible assets for impairment.

We consider this area a key audit matter requiring high auditors' attention because of the potential significant impact on the financial statements and the fact that the impairment test contains key judgmental areas that are strongly affected by assumptions.

Procedures performed

Our audit procedures included, among others, the following:

- We have analyzed internal and external information in order to identify potential impairment indicators;

- We have analyzed and reviewed the Company's impairment model including the significant underlying assumptions and checked whether an adequate valuation model was applied;
- We have analyzed the consistency of the underlying data used in the valuation model and compared these with the latest Board approved business plan;
- We have analyzed the consistency of the underlying data used in the valuation model and compared these with the data used in the context of a valuation done by an outside valuation expert for purposes of an intended at arm's length transfer of certain assets between group companies;
- We have assessed whether the cash generating units were defined in accordance with IFRS;
- We consulted a valuation expert in our firm to assess the methodology, clerical accuracy, long term growth rate and discount rate as applied;
- We reviewed the sensitivity analysis prepared by management to understand the effect of a change in assumptions;
- We considered all available information provided to us by the Company to assess potential additional factors that could trigger impairment;
- We reviewed the completeness and adequacy of the disclosures in Note 5.6.2 of the Company's Financial Statements.

Contingent consideration valuation

Description of the matter

As a result of the acquisition of OnCyte LLC in January 2015, the consolidated financial statements include a contingent consideration towards Celdara Medical LLC. As disclosed in Note 5.19.2 of the consolidated financial statements, this contingent liability is reported at fair value in the statement of financial position.

We consider this area a key audit matter requiring high auditors' attention because of the fact that the valuation of the contingent consideration is complex, contains key judgmental areas and is strongly affected by assumptions with regards to expected future cash flows and market conditions.

Procedures performed

Our audit procedures included, among others, the following:

- We have analyzed and reviewed the Company's fair value calculation including the significant underlying assumptions and checked whether an adequate valuation model was applied;
- We have analyzed the consistency of the underlying data used in the valuation model and compared these with the latest Board approved business plan;
- We have analyzed the consistency of the underlying data used in the valuation model and compared these with the data used in the context of the annual impairment test;
- We have analyzed the consistency of the underlying data used in the valuation model and compared these with the data used in the context of a valuation done by an outside

valuation expert for purposes of an intended at arm's length transfer of certain assets between group companies;
- We have performed an assessment of the reasonableness of key assumptions, notably probabilities of success, discount rate and long term growth rate;
- We reviewed the completeness and adequacy of the disclosures as included in note 5.19.2 to the consolidated financial statements.

Significant transaction with Celdara Medical and Dartmouth College

Description of the matter

As explained in notes 5.28 and 5.33.3 to the consolidated financial statements, in August 2017, Celyad amended its agreements with Celdara Medical LLC and Dartmouth College related to the CAR-T NK cell drug product candidates and related technology licensed in January 2015 following the acquisition of OnCyte LLC. Under the amended agreements Celyad is to receive an increased share of future revenues generated by these assets, including revenues from its sub-licensees. In return, Celyad paid Celdara Medical LLC and Dartmouth College an upfront payment of $12.5 million (€10.6 million) and issued to Celdara Medical LLC $12.5 million worth of Celyad's ordinary shares at a share price of €32.35.

We consider this area a key audit matter requiring high auditors' attention because of the magnitude of the related amendment fees and their significance to the financial statements.

Procedures performed

Our audit procedures included, among others, the following:

- We have read the new agreements with Celdara Medical LLC and Dartmouth College and held discussions with Celyad management to understand the business purpose of this transaction;
- We have evaluated the transaction in the context of the appropriate accounting standards;
- We have reviewed the accounting entries related to this transaction, including the accounting treatment of the amendment fees and the resulting contribution in kind.

Responsibilities of the board of directors for the consolidated financial statements

The board of directors is responsible for the preparation of consolidated financial statements that give a true and fair view in accordance with the International Financial Reporting Standards (IFRS) as adopted by the European Union and with the legal and regulatory provisions applicable in Belgium, and for such internal control as the board of directors determines is necessary to enable the preparation of consolidated financial statements that are free from material misstatements, whether due to fraud or error.

In preparing the consolidated financial statements, the board of directors is responsible for assessing the Group's ability to continue as a going concern, disclosing, as applicable, matters related to going concern and using the going concern basis of accounting unless the board of directors either intends to liquidate the Group or to cease operations, or has no realistic alternative but to do so.

Statutory auditor's responsibilities for the audit of the consolidated financial statements

Our objectives are to obtain reasonable assurance about whether the consolidated financial statements as a whole are free from material misstatement, whether due to fraud or error, and to issue a statutory auditor's report that includes our opinion. Reasonable assurance is a high level of assurance, but it is not a guarantee that an audit conducted in accordance with ISAs will always detect a material misstatement when it exists. Misstatements can arise from fraud or error and are considered material if, individually or in the aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of these consolidated financial statement.

As part of an audit in accordance with ISAs, we exercise professional judgment and maintain professional skepticism throughout the audit. We also:

- Identify and assess the risks of material misstatement of the consolidated financial statements, whether due to fraud or error, design and perform audit procedures responsive to those risks, and obtain audit evidence that is sufficient and appropriate to provide a basis for our opinion. The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal control ;
- Obtain an understanding of internal control relevant to the audit in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the Group's internal control ;
- Evaluate the appropriateness of accounting policies used and the reasonableness of accounting estimates and related disclosures made by the board of directors ;
- Conclude on the appropriateness of the board of directors' use of the going concern basis of accounting and, based on the audit evidence obtained, whether a material uncertainty exists related to events or conditions that may cast significant doubt on the Group's ability to continue as a going concern. If we conclude that a material uncertainty exists, we are required to draw attention in our statutory auditor's report to the related disclosures in the consolidated financial statements or, if such disclosures are inadequate, to modify our opinion. Our conclusions are based on the audit evidence obtained up to the date of our statutory auditor's report. However, future events or conditions may cause the Group to cease to continue as a going concern ;
- Evaluate the overall presentation, structure and content of the consolidated financial statements and whether the consolidated financial statements represent the underlying transactions and events in a manner that achieves fair presentation ;
- Obtain sufficient appropriate audit evidence regarding the financial information of the entities or business activities within the Group to express an opinion on the consolidated financial statements. We are responsible for the management, the supervision and the performance of the Group audit. We assume full responsibility for the auditor's opinion.

We communicate with the Audit Committee regarding, among other matters, the planned scope and timing of the audit as well as significant audit findings, including any significant deficiencies in internal control identified during the audit.

We also provide the Audit Committee with a statement that we have complied with relevant ethical requirements regarding independence, and to communicate with them all relationships and other matters that may reasonably be thought to bear on our independence and, where applicable, related safeguards.

From the matters communicated to the Audit Committee, we determine those matters that were of most significance in the audit of the consolidated financial statements of the current year, and are therefore the key audit matters. We describe these matters in our statutory auditor's report unless law or regulation precludes public disclosure about the matter.

Other statement

- The consolidated financial statements of Celyad S.A. as at December 31, 2016 were audited by another statutory auditor who has expressed an unqualified opinion in his report dated April 4, 2017.

Report on other legal and regulatory requirements

Responsibilities of the board of directors

The board of directors is responsible for the preparation and the contents of the management report on the consolidated financial statements and for the other information included in the annual report on the consolidated financial statements.

Responsibilities of the statutory auditor

In the context of our mandate and in accordance with the Belgian standard (revised in 2018) that is supplementary to the International Standards on Auditing (ISA) as applicable in Belgium, it is our responsibility to verify, in all material aspects, the management report on the consolidated financial statements and the other information included in the annual report on the consolidated financial statements, as well as to report on these elements.

Aspects related to the management report on the consolidated financial statements and to the other information included in the annual report on the consolidated financial statements

In our opinion, after having performed specific procedures in relation to the management report, the management report is consistent with the consolidated financial statements for the same same financial year, and it is prepared in accordance with article 119 of the Company Code.

In the context of our audit of the consolidated financial statements, we are also responsible for considering, in particular based on the knowledge we have obtained during the audit, whether the management report on the consolidated financial statements (chapter 1 of the annual report), and the other information included in the annual report on the consolidated financial statements, namely the operational and financial review by the Board of Directors (chapter 1.3 of the annual report) contain a material misstatement, i.e. information which is inadequately disclosed or otherwise misleading. Based on the procedures we have performed, there are no material misstatements we have to report to you.

We do not not express any form of assurance whatsoever on the management report on the consolidated financial statements nor on the other information contained in the annual report on the consolidated financial statements.

Statement concerning independence

- Our audit firm, and our network, did not provide services which are incompatible with the statutory audit of consolidated financial statements, and we remained independent of the Group throughout the course of our mandate.
- The fees related to additional services which are compatible with the statutory audit as referred to in article 134 of the Company Code were duly itemised and valued in the notes to the consolidated financial statements.

Other statement

- This report is in compliance with the contents of our additional report to the audit committee as referred to in article 11 of Regulation (EU) No 537/2014.

Brussels, April 6, 2018

BDO Réviseurs d'Entreprises Soc. Civ. SCRL

Statutory auditor

Represented by Bert Kegels

B. Year 2018

In the context of the statutory audit of the consolidated financial statements of Celyad S.A. (the Company) and its subsidiaries (together referred to as 'the Group'), we hereby present our statutory auditor's report. It includes our report on the audit of the consolidated financial statements as well as our report on the other legal and regulatory requirements. These reports form part of an integrated whole and are indivisible.

We have been appointed as statutory auditor by the general meeting of May 5, 2017, following the proposal formulated by the board of directors issued upon recommendation of the audit committee. Our statutory auditor's mandate expires on the date of the general meeting deliberating on the annual accounts closed on December 31, 2019. We have performed the statutory audit of the consolidated financial statements of Celyad S.A. for two years.

Report on the audit of the consolidated financial statements
Unqualified opinion

We have performed the statutory audit of the Group's consolidated financial statements, which comprise the consolidated statement of financial position as at December 31, 2018, and the consolidated statement of profit or loss and other comprehensive income, the consolidated statement of changes in equity and the consolidated statement of cash flows for the year then ended, and notes to the consolidated financial statements, including a summary of significant accounting policies and other explanatory information, and which is characterised by a consolidated statement of financial position total of 94.299 (000) EUR and for which consolidated statement of profit or loss and other comprehensive income shows a loss for the year of 38.551 (000) EUR.

In our opinion, the consolidated financial statements give a true and fair view of the Group's net equity and financial position as at December 31, 2018, as well as of its consolidated financial performance and its consolidated cash flows for the year then ended, in accordance with International Financial Reporting Standards (IFRS) as adopted by the European Union and with the legal and regulatory requirements applicable in Belgium.

Basis for unqualified opinion

We conducted our audit in accordance with International Standards on Auditing (ISAs) as applicable in Belgium. Our responsibilities under those standards are further described in the *'Statutory auditor's responsibilities for the audit of the consolidated financial statements*' section in this report. We have complied with all the ethical requirements that are relevant to the audit of consolidated financial statements in Belgium, including those concerning independence.

We have obtained from the board of directors and company officials the explanations and information necessary for performing our audit.

We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our opinion.

Key audit matters

Key audit matters are those matters that, in our professional judgment, were of most significance in our audit of the consolidated financial statements of the current year. These matters were addressed in the context of our audit of the consolidated accounts as a whole, and in forming our opinion thereon, and we do not provide a separate opinion on these matters.

Financial funding

Description of the matter
As described in Note 1.7 of the consolidated financial statements, the Company has disclosed that based on its current scope of activities, the Group estimates that its treasury position as of 31 December 2018 (including short term investments) is sufficient to cover its cash requirements until mid-2020, so that there is no going concern issue at this moment.

Given the high cash burn ratio that is inherent to the sector the Company is operating in, we consider financial funding a key audit matter requiring high auditors' attention.

Procedures performed
Our audit procedures included, among others, the following:

- We obtained the business plan and the cash forecast for the year 2019 and 2020 and reviewed it for reasonableness ;
- We reconciled the business plan with the data used in the context of the Company's impairment test and valuation of the contingent liability;
- We challenged the assumptions underlying the business plan and cash forecast, especially with respect to the expected level of operating expenses and revenues ;
- We compared the total of expected revenues included in the budget and cash forecast with those expected from existing agreements.

Revenue recognition

Description of the matter
Revenue recognition is the principle determining the accounting period in which revenues are recognized in accordance with the valuation rules as adopted by the company, in compliance with the appropriate financial reporting framework, being the IFRS 15 as from January 1st, 2018. Given the significant management estimates required within the revenue accounting, we consider this area as a key audit matter requiring high auditors' attention.

Procedures performed
Our audit procedures included, among others, the following:

- We performed a comprehensive analysis of each significant revenue agreement with its underlying documentation ;
- We challenged the key management estimates with regards to the performance obligations of the Company and the allocation of the overall contract price to these obligations ;
- We reviewed the adequacy of the disclosures notes included in the financial statements.

Contingent consideration valuation

Description of the matter
As a result of the acquisition of OnCyte LLC in January 2015, the consolidated financial statements include a contingent consideration towards Celdara Medical LLC. As disclosed in Note 5.19.2 of the consolidated financial statements, this contingent liability is reported at fair value in the statement of financial position.

We consider this area a key audit matter requiring high auditors' attention because of the fact that the valuation of the contingent consideration is complex, contains key judgmental areas and is strongly affected by assumptions with regards to expected future cash flows and market conditions.

Procedures performed
Our audit procedures included, among others, the following:

- We have analyzed and reviewed the Company's fair value calculation including the significant underlying assumptions and checked whether an adequate valuation model was applied ;
- We have analyzed the documentation prepared by the Company in relation with the significant underlying assumptions as included in the updated business plan and have participated to the meeting in which management has explained and justified these assumptions to the audit committee;
- We have analyzed the consistency of the underlying data used in the valuation model and compared these with the data used in the context of the annual impairment test;
- We have performed an assessment of the reasonableness of key assumptions, notably probabilities of success and forecasted sales level;
- We have consulted a valuation expert in our firm to assess the methodology, clerical accuracy, long term growth rate and discount rate as applied;
- We reviewed the completeness and adequacy of the disclosures as included in note 5.19.2 to the consolidated financial statements.

Intangible assets impairment

Description of the matter
As described in Note 5.6.2 of the consolidated financial statements, the Group is required to annually test its intangible assets for impairment as they are mainly composed of "In-process Research and Development Costs" ("IPRD"). As reminder, these assets acquired in a business combination are subject to annual impairment testing until the projects are available for use.

We consider this area a key audit matter requiring high auditors' attention because of the potential significant impact on the financial statements and the fact that the impairment test contains key judgmental areas that are strongly affected by assumptions.

Procedures performed
Our audit procedures included, among others, the following:

- We have analysed internal and external information in order to identify potential impairment indicators;
- We have analysed and reviewed the Company's impairment model including the significant underlying assumptions and checked whether an adequate valuation model was applied;
- We have analysed the Company's valuation applied in relation with the intragroup transfer of the intangible assets that were previously owned by Oncyte LLC, a 100% subsidiary of Celyad S.A. that was liquidated in the course of 2018;
- We have analysed the consistency of the underlying data used in the impairment test and compared these with the data used in the valuation model applied in context of the valuation of the contingent liability;
- We have consulted a valuation expert in our firm to assess the methodology, clerical accuracy, long term growth rate and discount rate as applied;
- We reviewed the sensitivity analysis prepared by management to understand the effect of a change in assumptions;
- We considered all available information provided to us by the Company to assess potential additional factors that could trigger impairment;
- We reviewed the completeness and adequacy of the disclosures in the consolidated financial statements.

Responsibilities of the board of directors for the consolidated financial statements

The board of directors is responsible for the preparation of consolidated financial statements that give a true and fair view in accordance with the International Financial Reporting Standards (IFRS) as adopted by the European Union and with the legal and regulatory provisions applicable in Belgium, and for such internal control as the board of directors determines is necessary to enable the preparation of consolidated financial statements that are free from material misstatements, whether due to fraud or error.

In preparing the consolidated financial statements, the board of directors is responsible for assessing the Group's ability to continue as a going concern, disclosing, as applicable, matters related to going concern and using the going concern basis of accounting unless the board of directors either intends to liquidate the Group or to cease operations, or has no realistic alternative but to do so.

Statutory auditor's responsibilities for the audit of the consolidated financial statements

Our objectives are to obtain reasonable assurance about whether the consolidated financial statements as a whole are free from material misstatement, whether due to fraud or error, and to issue a statutory auditor's report that includes our opinion. Reasonable assurance is a high level of assurance, but it is not a guarantee that an audit conducted in accordance with ISAs will always detect a material misstatement when it exists. Misstatements can arise from fraud or error and are considered material if, individually or in the aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of these consolidated financial statement.

As part of an audit in accordance with ISAs, we exercise professional judgment and maintain professional scepticism throughout the audit. We also:

- Identify and assess the risks of material misstatement of the consolidated financial statements, whether due to fraud or error, design and perform audit procedures responsive to those risks, and obtain audit evidence that is sufficient and appropriate to provide a basis for our opinion. The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal control ;
- Obtain an understanding of internal control relevant to the audit in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the Group's internal control ;
- Evaluate the appropriateness of accounting policies used and the reasonableness of accounting estimates and related disclosures made by the board of directors ;
- Conclude on the appropriateness of the board of directors' use of the going concern basis of accounting and, based on the audit evidence obtained, whether a material uncertainty exists related to events or conditions that may cast significant doubt on the Group's ability to continue as a going concern. If we conclude that a material uncertainty exists, we are required to draw attention in our statutory auditor's report to the related disclosures in the consolidated financial statements or, if such disclosures are inadequate, to modify our opinion. Our conclusions are based on the audit evidence obtained up to the date of our statutory auditor's report. However, future events or conditions may cause the Group to cease to continue as a going concern ;
- Evaluate the overall presentation, structure and content of the consolidated financial statements and whether the consolidated financial statements represent the underlying transactions and events in a manner that achieves fair presentation ;
- Obtain sufficient appropriate audit evidence regarding the financial information of the entities or business activities within the Group to express an opinion on the consolidated financial statements. We are responsible for the management, the supervision and the performance of the Group audit. We assume full responsibility for the auditor's opinion.

We communicate with the Audit Committee regarding, among other matters, the planned scope and timing of the audit as well as significant audit findings, including any significant deficiencies in internal control identified during the audit.

We also provide the Audit Committee with a statement that we have complied with relevant ethical requirements regarding independence, and to communicate with them all relationships and other matters that may reasonably be thought to bear on our independence and, where applicable, related safeguards.

From the matters communicated to the Audit Committee, we determine those matters that were of most significance in the audit of the consolidated financial statements of the current year, and are therefore the key audit matters. We describe these matters in our statutory auditor's report unless law or regulation precludes public disclosure about the matter.

Report on other legal and regulatory requirements
Responsibilities of the board of directors

The board of directors is responsible for the preparation and the contents of the management report on the consolidated financial statements and for the other information included in the annual report on the consolidated financial statements.

Responsibilities of the statutory auditor

In the context of our mandate and in accordance with the Belgian standard (revised in 2018) that is supplementary to the International Standards on Auditing (ISA) as applicable in Belgium, it is our responsibility to verify, in all material aspects, the management report on the consolidated financial statements and the other information included in the annual report on the consolidated financial statements, as well as to report on these elements.

Aspects related to the management report on the consolidated financial statements and to the other information included in the annual report on the consolidated financial statements

In our opinion, after having performed specific procedures in relation to the management report, the management report is consistent with the consolidated financial statements for the same same financial year, and it is prepared in accordance with article 119 of the Company Code.

In the context of our audit of the consolidated financial statements, we are also responsible for considering, in particular based on the knowledge we have obtained during the audit, whether the management report on the consolidated financial statements (chapter 1 of the annual report), and the other information included in the annual report on the consolidated financial statements, namely the operational and financial review by the Board of Directors (chapter 1.3 of the annual report) contain a material misstatement, i.e. information which is inadequately disclosed or otherwise misleading. Based on the procedures we have performed, there are no material misstatements we have to report to you.

We do not not express any form of assurance whatsoever on the management report on the consolidated financial statements nor on the other information contained in the annual report on the consolidated financial statements.

Statement concerning independence

- Our audit firm, and our network, did not provide services which are incompatible with the statutory audit of consolidated financial statements, and we remained independent of the Group throughout the course of our mandate.
- The fees related to additional services which are compatible with the statutory audit as referred to in article 134 of the Company Code were duly itemised and valued in the notes to the consolidated financial statements.

Other statement

- This report is in compliance with the contents of our additional report to the audit committee as referred to in article 11 of Regulation (EU) No 537/2014.

Zaventem, April 5, 2019

BDO Réviseurs d'Entreprises SCRL
Statutory auditor
Represented by Bert Kegels

12.3. Consolidated Financial Statements as at 31 December 2018

12.3.1. Consolidated statement of financial position

(€'000)		As at 31 December,	
	Notes	**2018**	**2017**
NON-CURRENT ASSETS		**42,607**	**41,232**
Intangible assets	12.4.6	36,164	36,508
Property, Plant and Equipment	12.4.7	3,014	3,290
Non-current trade receivables	12.4.8	1,743	-
Other non-current assets	12.4.8	1,687	1,434
CURRENT ASSETS		**51,692**	**36,394**
Trade and Other Receivables	12.4..9	367	233
Other current assets	12.4.9	1,585	2,255
Short-term investments	12.4.10	9,197	10,653
Cash and cash equivalents	12.4.11	40,542	23,253
TOTAL ASSETS		**94,299**	**77,626**
EQUITY		**55,589**	**47,535**
Share Capital	12.4.13	41,553	34,337
Share premium	12.4.13	206,149	170,297
Other reserves	12.4.21	25,667	23,322
Accumulated deficit		(217,778)	(180,421)
NON-CURRENT LIABILITIES		**29,063**	**22,146**
Bank loans	12.4.18	229	326
Finance leases	12.4.18	652	482
Recoverable Cash advances (RCA's)	12.4.16	2,864	1,544
Contingent consideration and other financial liabilities	12.4.19	25,187	19,583
Post employment benefits	12.4.15	131	204

Other non-current liabilities		-	7
CURRENT LIABILITIES		**9,647**	**7,945**
Bank loans	12.4.18	281	209
Finance leases	12.4.18	484	427
Recoverable Cash advances (RCA's)	12.4.16	276	226
Trade payables	12.4.17	5,916	4,800
Other current liabilities	12.4.17	2,690	2,282
TOTAL EQUITY AND LIABILITIES		**94,299**	**77,626**

The accompanying disclosure notes form an integral part of these consolidated financial statements.

12.3.2. Consolidated statement of comprehensive loss

(€'000)		For the year ended 31 December,	
	Notes	**2018**	**2017**
Revenue	**12.4.22**	**3,115**	**3,540**
Cost of sales		-	(515)
Gross profit		**3,115**	**3,025**
Research and Development expenses	12.4.23	(23,577)	(22,908)
General & Administrative expenses	12.4.24	(10,387)	(9,310)
Other income	12.4.27	1,078	2,630
Other expenses	12.4.27	(8,399)	(41)
Adjusted Operating Loss [1]		**(38,170)**	**(26,604)**
Amendment of Celdara Medical and Dartmouth College agreements	12.4.28	-	(24,341)
Write-off C-Cure and Corquest assets and derecognition of related liabilities	12.4.28	-	(1,932)
Operating Loss		**(38,170)**	**(52,876)**
Financial income	12.4.30	804	933
Financial expenses	12.4.30	(62)	(4,454)
Loss before taxes		**(37,427)**	**(56,396)**
Income taxes	12.4.20	0	1
Loss for the year [2]		**(37,427)**	**(56,395)**
Basic and diluted loss per share (in €)	12.4.31	(3.36)	(5.86)
Other comprehensive loss			
Items that will not be reclassified to profit and loss		**70**	**-**
Remeasurements of post employment benefit obligations, net of tax		70	-
Items that may be subsequently reclassified to profit or loss		**(1,194)**	**(769)**
Currency translation differences		(1,194)	(769)
Other comprehensive income / (loss) for the year, net of tax		**(1,124)**	**(769)**
Total comprehensive loss for the year		**(38,551)**	**(57,164)**
Total comprehensive loss for the year attributable to Equity Holders [2]		**(38,551)**	**(57,164)**

[1] 'Adjusted Operating Loss' is a sub-total, within Operating Profit or Loss determined in accordance with IFRS, which excludes non-recurring items of significant magnitude. These non-recurring items are presented as separate lines below the Adjusted Operating Loss sub-total.

[2] For 2018 and 2017, the Group does not have any non-controlling interests and the losses for the year are fully attributable to owners of the parent.

The accompanying disclosure notes form an integral part of these consolidated financial statements.

12.3.3. Consolidated statement of changes in equity

(€'000)	Share capital (Note 12.4.13)	Share premium (Note 12.4.13)	Other reserves (Note 12.4.21)	Accumulated deficit	Total Equity
Balance as at 1st January 2017	**32,571**	**158,010**	**24,330**	**(124,026)**	**90,885**
Capital increase resulting from Celdara and Dartmouth College agreements amendment	1,141	9,479			10,620
Exercise of warrants	625				625
Share-based payments		2,808	(239)		2,569
Total transactions with owners, recognized directly in equity	**1,766**	**12,287**	**(239)**	**-**	**13,814**
Loss for the year				(56,395)	(56,395)
Currency Translation differences			(769)		(769)
Total comprehensive gain/(loss) for the year	**-**	**-**	**(769)**	**(56,395)**	**(57,164)**
Balance as at 31 December 2017	**34,337**	**170,297**	**23,322**	**(180,421)**	**47,535**
Balance as at 1st January 2018	**34,337**	**170,297**	**23,322**	**(180,421)**	**47,535**
Capital increase in cash	7,204	38,937			46,140
Transaction costs associated with capital increases		(3,141)			(3,141)
Exercice of warrants	12				12
Share-based payments		56	3,539		3,595
Total transactions with owners, recognized directly in equity	**7,215**	**35,851**	**3,539**	**-**	**46,606**
Loss for the year				(37,427)	(37,427)
Currency Translation differences			(1,194)		(1,194)
Remeasurements of defined benefit obligation				70	70
Total comprehensive gain/(loss) for the year	**-**	**-**	**(1,194)**	**(37,357)**	**(38,551)**
Balance as at 31 December 2018	**41,552**	**206,149**	**25,667**	**(217,778)**	**55,589**

The accompanying disclosure notes form an integral part of these consolidated financial statements.

12.3.4. Consolidated statement of Cash Flows

(€'000)	Notes	For the year ended 31 December, 2018	2017
Cash Flow from operating activities			
Loss for the year	13.3.2	(37,427)	(56,395)
Cash expense for amendment of Celdara Medical and Dartmouth College agreements	12.4.28	-	13,276
Non-cash adjustments			
Non-Cash expense for amendment of Celdara Medical and Dartmouth College agreements	12.4.28	-	10,620
Intangibles - Amortization and impairment	12.4.6	66	8,038
PP&E - Depreciation	12.4.7	1,048	966
Upfront payment settled in shares	12.4.22	(843)	-
Change in fair value of Contingent consideration and other financial liabilities	12.4.19	5,604	(193)
Remeasurement of Recoverable Cash Advances (RCA's)	12.4.18	998	(5,356)
Grant income (RCA's and others)	12.4.27	(768)	(1,376)
Share-based payment expense	12.4.14	3,595	2,569
Post-employment benefits	12.4.15	(3)	-
Change in working capital			
Trade receivables, other (non-)current receivables		(1,459)	(832)
Trade payables, other (non-)current liabilities		1,940	(2,482)
Adjusted Net cash used in operations		**(27,249)**	**(31,165)**
Cash expense for amendment of Celdara Medical and Dartmouth College agreements	12.4.28	-	(13,276)
Net cash used in operations		**(27,249)**	**(44,441)**
Cash Flow from investing activities			
Acquisition of Property, Plant & Equipment	12.4.7	(833)	(851)
Acquisitions of Intangible assets	12.4.6	(932)	(7)
Disposals of fixed assets	12.4.7	74	-
Contingent liability pay out	12.4.19	-	(5,107)
Acquisition of short-term investments	12.4.10	(26,561)	(10,749)
Proceeds from short-term investments	12.4.10	28,859	34,326
Net cash from/(used in) investing activities		**607**	**17,613**
Cash Flow from financing activities			
Proceeds from finance leases and bank borrowings	12.4.18	950	543
Repayments of finance leases and bank borrowings	12.4.18	(749)	(576)
Proceeds from issuance of shares and exercise of warrants	12.4.13	43,011	625
Proceeds from RCA's & other grants	12.4.18	1,187	1,376
Repayment of RCA's & other grants	12.4.18	(471)	(1,364)
Net cash from/(used in) financing activities		**43,928**	**605**
Net cash and cash equivalents at beginning of the year		**23,253**	**48,357**
Change in Cash and cash equivalents	12.4.11	17,286	(26,224)
Effects of exchange rate changes on cash and cash equivalents		3	1,120
Net cash and cash equivalents at the end of the year		**40,542**	**23,253**

12.4. Notes to the Consolidated Financial Statements

12.4.1. General information

Celyad is a clinical-stage biopharmaceutical company focused on the development of engineered CAR-T cell-based therapies for the treatment of both hematological malignancies and solid tumors.

The Company's lead candidate, CYAD-01, is an investigational autologous CAR-T therapy which expresses the NKG2D receptor from natural killer (NK) cells that binds to eight stress-induced ligands expressed on tumor cells. CYAD-01 is currently being evaluated for safety and clinical activity in multiple dose-escalation Phase 1 clinical trials both as a monotherapy without preconditioning chemotherapy and following preconditioning chemotherapy for the treatment of patients with r/r AML and when concurrently administered with standard-of-care chemotherapy or preconditioning chemotherapy in mCRC patients. Celyad's second clinical candidate, CYAD-101, is an investigational, non-gene edited allogeneic (donor derived) CAR-T therapy that co-expresses the NKG2D receptor of CYAD-01 and the novel inhibitory peptide TIM (Tcell receptor [TCR] Inhibiting Molecule). CYAD-101 is currently being evaluated for safety and clinical activity in a dose-esclation Phase 1 trial when concurrently administered with standard-of-care chemotherapy for the treatment of mCRC.

Celyad SA was incorporated on July 24, 2007 under the name "Cardio3 BioSciences". Celyad is a limited liability company (Société Anonyme) governed by Belgian law with its registered office at Axis Parc, Rue Edouard Belin 2, B-1435 Mont-Saint-Guibert, Belgium (company number 0891.118.115). The Company's ordinary shares are listed on NYSE Euronext Brussels and NYSE Euronext Paris regulated markets and the Company's American Depositary Shares (ADSs) are listed on the NASDAQ Global Market, all under the ticker symbol CYAD.

The Company has three fully owned subsidiaries (together, the Group) located in Belgium (Biological Manufacturing Services SA) and in the United States (Celyad Inc. and Corquest Medical, Inc.). OnCyte LLC has been dissolved on March 8, 2018 and, as a result, all of its assets and liabilities were since then fully distributed to and assumed by Celyad SA.

These consolidated financial statements have been approved for issuance by the Company's Board of Directors on March 28, 2019. These statements have been audited by BDO Réviseurs d'entreprises SCRL, the statutory auditor of the Company.

The registration document is available to the public free of charge and upon request to the above-mentioned address or via the Company's website (http://www.celyad.com/investors).

12.4.2. Basis of preparation and significant accounting policies

The year-end consolidated financial statements of Celyad for the twelve months ended December 31, 2018 (the "year") include Celyad SA and its subsidiaries. The significant accounting policies used for preparing these consolidated financial statements are explained below.

12.4.2.1. Basis of preparation

The consolidated financial statements have been prepared on a historical cost basis, except for :

- Financial instruments – Fair value through profit or loss
- Contingent consideration and other financial liabilities
- Post-employment benefits liability
- Equity securities held as short-term investments at 31 December 2018 (see note 12.4.10)

The policies have been consistently applied to all the years presented, unless otherwise stated. The consolidated financial statements are presented in euro and all values are presented in thousands (€000) except when otherwise indicated. Amounts have been rounded off to the nearest thousand and in certain cases, this may result in minor discrepancies in the totals and sub-totals disclosed in the financial tables.

Statement of compliance

The consolidated financial statements of the Group have been prepared in accordance with International Financial Reporting Standards, International Accounting Standards and Interpretations (collectively, IFRSs) as issued by the International Accounting Standards Board (IASB) and as endorsed by the European Union.

The preparation of the consolidated financial statements in accordance with IFRS requires the use of certain critical accounting estimates. It also requires management to exercise its judgment in the process of applying the Group's accounting policies. The areas involving a higher degree of judgment or complexity, are areas where assumptions and estimates are significant to the financial statements. They are disclosed in note 12.4.4.

Going concern

The Group is pursuing a strategy to develop therapies to treat unmet medical needs in oncology. Management has prepared detailed budgets and cash flow forecasts for the years 2019 and 2020. These forecasts reflect the strategy of the Group and include significant expenses and cash outflows in relation to the development of selected research programs and product candidates.
Based on its current scope of activities, the Group estimates that its treasury position[5] as of 31 December 2018 is sufficient to cover its cash requirements until mid-2020, therefore beyond the readouts of our clinical trials currently ongoing. After due consideration of the above, the Board of Directors determined that management has an appropriate basis to conclude on the business continuity over the next 12 months from balance sheet date, and hence it is appropriate to prepare the financial statements on a going concern basis.

Changes to accounting standards and interpretations

The Group has applied the same accounting policies and methods of computation in its year-end consolidated financial statements as prior year, except for those that relate to new standards and interpretations effective for the first time for periods beginning on (or after) 1 January 2018. The Group has adopted the following new standards that went into effect on January 1, 2018:

- IFRS 9 *Financial Instruments*; and
- IFRS 15 *Revenue from Contracts with Customers*
- Details of the impact of these two standards on the Group are given below.

[5] '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.

- IFRS 9 Financial Instruments (effective for annual periods beginning on or after 1 January 2018) is the standard issued as part of a wider project to replace IAS 39. IFRS 9 introduces a logical approach for the classification of financial assets, which is driven by cash flow characteristics and the business model in which an asset is held; defines a new expected-loss impairment model that will require more timely recognition of expected credit losses; and introduces a substantially-reformed model for hedge accounting, with enhanced disclosures about risk management activity. The new hedge accounting model represents a significant overhaul of hedge accounting that aligns the accounting treatment with risk management activities. IFRS 9 also removes the volatility in profit or loss that was caused by changes in the credit risk of liabilities elected to be measured at fair value.

    - Regarding the classification and measurement of financial assets, the impact is limited since the Group does not hold significant equity or debt investments.
    - Likewise, the impact in the Group of the new guidance on impairment of financial assets is very limited considering the nature of financial assets held and specifically the current low amount of trade receivables.
    - The Group does not currently apply hedge accounting.
    - There are no substantial changes to the measurement of financial liabilities under the new guidance.
    - Considering all of the above and the characteristics of the financial instruments held by the Company, management has analyzed the implications of the retrospective adoption on the required effective date of this standard in accordance with IAS 8. The Company has concluded that the application of IFRS 9 does not have a significant impact on the financial statements.

- IFRS 15 Revenue from Contracts with Customers (effective for annual periods beginning on or after 1 January 2018) is the new standard ruling revenue recognition. Its core principle requires to depict the transfer of goods or services to customers in amounts that reflect the consideration (that is, payment) to which the company expects to be entitled in exchange for those goods or services. The new standard also results in enhanced disclosures about revenue, provides guidance for transactions that were not previously addressed comprehensively (for example, service revenue and contract modifications) and improve guidance for multiple-element arrangements.

  The Group has applied the full retrospective transition approach. For the comparative year presented in the 2018 financial statements, the most significant revenue source of the Company was the license agreement signed with Novartis in May 2017. Management has analysed the contract using the guidance under the new standard and has concluded that the adoption of IFRS 15 does not affect the previous accounting treatment under IAS 18. In this respect, the licensing revenue relating to the Novartis agreement reported for the year ended December 31, 2017, has been concluded by management as follows:

    - in accordance with 'Licensing' Application Guidance set forth in IFRS 15 - Appendix B, para. B52 until B63: it shall not be subject to any recognition restatement, as the agreement qualify as a 'right-to-use' license;
    - in order to comply with 'Principal vs. Agent' guidance set forth in IFRS 15 Appendix B, para. B34 until B38: it shall not be subject to any presentation restatement, as both 'revenue' and 'cost of licensing' (expense) were already presented separately under IAS 18, evidencing properly that the Company is acting as a 'Principal' in this transaction.

At 2018 year-end, IFRS 15 implementation has thus no revenue recognition or presentation impact on the Group's financial statements, for the comparative year presented.

Except for IFRS 16 *Leases*, other new or amended standards and Interpretations issued by the IASB and the IFRIC that will apply for the first time in future annual periods are not expected to have a material effect on the Group as they are either not relevant to the Group's activities or require accounting which is consistent with the Group's current accounting policies. Details of IFRS 16 impact on the Group are given below:

- IFRS 16 Leases is a new standard effective for annual periods beginning on or after 1 January 2019. Therefore, the Group shall transition as of 1 January 2019 and will issue financial statements prepared for the first time in accordance with IFRS 16 at Half Year 2019.

  The standard replaces the existing lease accounting requirements and, in particular, represents a significant change in the accounting and reporting of leases that were previously classified as 'operating leases' under IAS 17, with incremental assets and liabilities to be reported on the balance sheet and a different recognition of lease costs.
  The Group will opt for the so-called 'modified retrospective' adoption method and therefore shall only restate lease contracts active at 1 January 2019. In addition, it has decided to measure right-of-use assets by reference to the measurement of the lease liability on that date. Accordingly, there will be no transiton impact on the Group's opening equity for the year 2019.

  The Group has set up a project team, supported by an external advisor, to draw an inventory of lease contracts differentiating those in scope of IFRS 16 restatement from those excluded under low-value and short-term contracts exemptions allowed by IFRS 16. The Group has completed the process of capturing the relevant data needed under the new standard, in order to analyze the impact of adopting IFRS 16. In accordance with these preliminary data, the lease obligation to be recognized as of 1 January 2019 amounts to €2.2 million.

  IFRS 16 transition quantitative impact is discussed further under the disclosure note 12.4.29.

12.4.2.2. Consolidation

Subsidiaries

Subsidiaries are all entities (including structured entities) over which the Group has control. The Group controls an entity when the Group is exposed to, or has rights to, variable returns from its involvement with the entity and has the ability to affect those returns through its power over the entity. Subsidiaries are fully consolidated from the date on which control is transferred to the Group. They are deconsolidated from the date control ceases.

Inter-company transactions, balances and unrealized gains on transactions between group companies are eliminated. Unrealized losses are also eliminated. When necessary, amounts reported by subsidiaries have been adjusted to conform with the Group's accounting policies.

Business Combinations

The Group applies the acquisition method to account for business combinations.

The consideration transferred for the acquisition of a subsidiary is measured at the aggregate of the fair values of the assets transferred, the liabilities incurred or assumed and the equity interests issued by the Group at the date of the acquisition. The consideration transferred includes the fair value of any asset or liability resulting from a contingent consideration arrangement. Identifiable assets acquired and liabilities and contingent liabilities assumed in a business combination are measured initially at their fair values at the acquisition date.

Acquisition-related costs are expensed as incurred.

Any contingent consideration to be transferred by the Group is recognized at fair value at the acquisition date. Subsequent changes to the fair value of the contingent consideration that is deemed to be an asset or liability is recognized in profit or loss, in accordance with IFRS 9 if applicable. Contingent consideration that is classified as equity is not re-measured, and its subsequent settlement is accounted for within equity.

12.4.2.3. Foreign currency translation

Functional and presentation currency

Items included in the financial statements of each of the Group's entities are measured using the currency of the primary economic environment in which the entity operates ("the functional currency"). The consolidated financial statements are presented in Euros, which is the Group's presentation currency.

Transactions and balances

Foreign currency transactions (mainly USD) are translated into the functional currency using the applicable exchange rate on the transaction dates. Monetary assets and liabilities denominated in foreign currencies are retranslated at the functional currency spot rate of exchange ruling at the reporting date.

Foreign currency exchange gains and losses arising from settling foreign currency transactions and from the retranslation of monetary assets and liabilities denominated in foreign currencies at the reporting date are recognised in the income statement.

Non-monetary items that are measured in terms of historical cost in a foreign currency are translated using the exchange rates as of the dates of the initial transactions. Non-monetary items measured at fair value in a foreign currency are translated using the exchange rates at the date when the fair value is determined.

Group companies

The results and financial position of all group entities that have a functional currency different from the presentation currency are translated into the presentation currency as follows:

- Assets and liabilities for each balance sheet presented are translated at the closing rate at the date of that balance sheet;
- Income and expenses for each income statement are translated at average exchange rate (unless this average is not a reasonable approximation of the cumulative effect of the rates prevailing on the transaction dates, in which case income and expenses are translated at the rate on the dates of the transactions); and
- All resulting translation differences are recognized in other comprehensive income.

12.4.2.4. Revenue

So far, the main revenue generated by the Group relates to the sale of licenses.

Licensing revenue

Celyad enters into license and/or collaboration agreements with third-party biopharmaceutical partners. Revenue under these arrangements may include non-refundable upfront payments, product development milestone payments, commercial milestone payments and/or sales-based royalties payments.

Upfront payments

Licence fees representing non-refundable payments received at the time of signature of licence agreements are recognized as revenue upon signature of the licence agreements when the Company has no significant future performance obligations and collectibility of the fees is assured.

Milestone payments

Milestone payments represent amounts received from our customers or collaborators, the receipt of which is dependent upon the achievement of certain scientific, regulatory, or commercial milestones. Under IFRS 15, milestone payments generally represent a form of variable consideration as the payments are likely to be contingent on the occurrence of future events. Milestone payments are estimated and included in the transaction price based on either the expected value (probability-weighted estimate) or most likely amount approach. The most likely amount is likely to be most predictive for milestone payments with a binary outcome (i.e., the company receives all or none of the milestone payment). Variable consideration is only recognized as revenue when the related performance obligation is satisfied and the company determines that it is highly probable that there will not be a significant reversal of cumulative revenue recognized in future periods.

Royalty revenue

Royalty revenues arise from our contractual entitlement to receive a percentage of product sales achieved by co-contracting parties. As our co-contrating partners currently have no products based on a Celyad-technology approved for sale, we have not received any royalty revenue to date. Royalty revenues, if earned, will be recognized on an accrual basis in accordance with the terms of the contracts with our customers when sales occur and there is reasonable assurance that the receivables from outstanding royalties will be collected.

Sales of goods (medical devices)

Sales of medical devices are recognized when Celyad has transferred to the buyer the control of the promised goods (with control referring to the ability to direct the use of and obtain substantially all of the remaining benefits of the medical device). Sales of medical devices generated by the Group until 2017 are associated with C-Cath$_{EZ}$, its proprietary catheter.

12.4.2.5. Government Grants (Other income)

The Group's grant income reported under 'Other income' in the consolidated income statement is generated from: (i) recoverable cash advances (RCAs) granted by the Regional government of Wallonia;

(ii) R&D tax credits granted by the Belgian federal government; and (iii) grants received from the European Commission under the Seventh Framework Program ("FP7").
Government grants are recognised at their fair value where there is reasonable assurance that the grant will be received and the Group will comply with all attached conditions. Once a government grant is recognized, any related contingent liability (or contingent asset) is treated in accordance with IAS 37.

Government grants relating to costs are deferred and recognised in the income statement over the period necessary to match them with the costs that they are intended to compensate.

Recoverable cash advances (RCAs)

The Group receives grants from the Walloon Region in the form of recoverable cash advances (RCAs). RCAs are dedicated to support specific development programs. All RCA contracts, in essence, consist of three phases, i.e., the "research phase", the "decision phase" and the "exploitation phase". During the research phase, the Group receives funds from the Region based on statements of expenses. In accordance with IAS 20.10A and IFRS Interpretations Committee (IC)'s conclusion that contingently repayable cash received from a government to finance a research and development (R&D) project is a financial liability under IAS 32, 'Financial instruments; Presentation', the RCAs are initially recognised as a financial liability at fair value, determined as per IFRS 9/IAS 39.

The benefit (RCA grant component) consisting in the difference between the cash received (RCA proceeds) and the above-mentioned financial liability's fair value (RCA liability component) is treated as a government grant in accordance with IAS 20.

The RCA grant component is recognized in profit or loss on a systematic basis over the periods in which the entity recognizes the underlying R&D expenses subsidized by the RCA.

The RCAs liability component (RCA financial liability) is subsequently measured at amortized cost using the cumulative catch-up approach under which the carrying amount of the liability is adjusted to the present value of the future estimated cash flows, discounted at the liability's original effective interest rate. The resulting adjustment is recognized within profit or loss.

At the end of the research phase, the Group should within a period of six months decide whether or not to exploit the results of the research phase (decision phase). The exploitation phase may have a duration of up to 10 years. In the event the Group decides to exploit the results under an RCA, the relevant RCA becomes contingently refundable, and the fair value of the RCA liability adjusted accordingly, if required.

When the Group does not exploit (or ceases to exploit) the results under an RCA, it has to notify the Region of this decision. This decision is of the sole responsibility of the Group. The related liability is then discharged by the transfer of such results to the Region. Also, when the Group decides to renounce to its rights to patents which may result from the research, title to such patents will be transferred to the Region. In that case, the RCA liability is extinguished.

R&D Tax credits

Since 2013, the Company applies for R&D tax credit, a tax incentive measure for European SME's set-up by the Belgian federal government. When capitalizing its R&D expenses under tax reporting framework, the Company may either i) get a reduction of its taxable income (at current income tax rate

applicable) ; or ii) if no sufficient taxable income is available, apply for the refund of the unutilized tax credits, calculated on the R&D expenses amount for the year. Such settlement occurs at the earliest 5 financial years after the tax credit application filed by the Company.

Considering that R&D tax credits are ultimately paid by the public authorities, the related benefit is treated as a government grant under IAS 20 and booked into other income, in order to match the R&D expenses subsidized by the grant.

Other government grants

The Group has received and will continue to apply for grants from European (FP7) and Regional authorities. These grants are dedicated to partially finance early stage projects such as fundamental research, applied research, prototype design, etc.
To date, all grants received are not associated to any conditions. As per contract, grants are paid upon submission by the Group of statement of expenses. The Company incurs project expenses first and asks for partial refunding according to the terms of the contracts.

These government grants are recognized in profit or loss on a systematic basis over the periods in which the entity recognizes the underlying R&D expenses subsidized.

12.4.2.6. Intangible assets

The following categories of intangible assets apply to the current Group operations:

Separately acquired intangible assets

Intangible assets acquired from third parties are recognised at cost, if and only if it is probable that future economic benefits associated with the asset will flow to the Group, and that the cost can be measured reliably. Following initial recognition, intangible assets are carried at cost less any accumulated amortisation and accumulated impairment losses. The useful life of intangible assets is assessed as finite, except for Goodwill and IPRD assets (discussed below). They are amortised over the expected useful economic life and assessed for impairment whenever there is an indication that the intangible asset may be impaired. The amortisation period and the amortisation method for an intangible asset with a finite useful life are reviewed at least at each financial year end. Changes in the expected useful life or the expected pattern of consumption of future economic benefits embodied in the asset is accounted for by changing the amortisation period or method, as appropriate, and are treated as changes in accounting estimates. The amortisation expense on intangible assets with finite lives is recognised in the income statement in the expense category consistent with the function of the intangible asset.

Patents, Licenses and Trademarks

Licences for the use of intellectual property are granted for a period corresponding to the intellectual property of the assets licensed. Amortisation is calculated on a straight-line basis over this useful life.

Patents and licences are amortized over the period corresponding to the IP protection and are assessed for impairment whenever there is an indication these assets may be impaired. Indication of impairment is related to the value of the patent demonstrated by the pre-clinical and clinical results of the technology.

Software

Software only concerns acquired computer software licences. Software is capitalised on the basis of the costs incurred to acquire and bring to use the specific software. These costs are amortised over their estimated useful lives of three to five years on a straight-line basis.

Intangible assets acquired in a business combination

Goodwill

A goodwill is an asset representing the future economic benefits arising from other assets acquired in a business combination that are not individually identified and separately recognised. Goodwill is measured as a residual at the acquisition date, as the excess of the fair value of the consideration transferred and the assets and liabilities recognised (in accordance with IFRS 3).

Goodwill has an indefinite useful life and is not amortized but tested for impairment at least annually or more frequently whenever events or changes in circumstances indicate that goodwill may be impaired, as set forth in IAS 36 (Impairment of Assets).

Goodwill arising from business combinations is allocated to cash generating units, which are expected to receive future economic benefits from synergies that are most likely to arise from the acquisition. These cash generating units form the basis of any future assessment of impairment of the carrying value of the acquired goodwill.

In process research and development costs

The In-process research and development costs ("IPRD") acquired as part of a business combination are capitalized as an indefinite-lived intangible asset until project has been completed or abandoned. In a business combination, IPRD is measured at fair value at the date of acquisition. Subsequent to initial recognition, it is reported at cost and is subject to annual impairment testing until the date the projects are available for use. At this moment, the IPRD will be amortized over its remaining useful economic life.

Subsequent R&D expenditure can be capitalized as part of the IPRD only to the extent that IPRD is in development stage, i.e. when such expenditure meets the recognition criteria of IAS 38. In line with biotech industry practice, Celyad determines that 'development stage' under IAS 38 is reached when the product candidate gets regulatory approval (upon Phase III completion). Therefore, any R&D expenditure incurred between the acquisition date and the development stage should be treated as part of research phase and expensed periodically in the income statement.

Internally generated intangible assets

Except qualifying development expenditure (discussed below), internally generated intangible assets are not capitalised. Expenditure is reflected in the income statement in the year in which the expenditure is incurred.

Research and development costs

Research costs are expensed as incurred. Development expenditures on an individual project are recognised as an intangible asset when the Group can demonstrate:

a) the technical feasibility of completing the intangible asset so that it will be available for use or sale.
b) its intention to complete the intangible asset and use or sell it.
c) its ability to use or sell the intangible asset.
d) how the intangible asset will generate probable future economic benefits. Among other things, the entity can demonstrate the existence of a market for the output of the intangible asset or the intangible asset itself or, if it is to be used internally, the usefulness of the intangible asset.
e) the availability of adequate technical, financial and other resources to complete the development and to use or sell the intangible asset.
f) its ability to measure reliably the expenditure attributable to the intangible asset during its development.

For the industry in which the Group operates, the life science industry, criteria a) and d) tend to be the most difficult to achieve. Experience shows that in the Biotechnology sector technical feasibility of completing the project is met when such project completes successfully Phase III of its development. For medical devices this is usually met at the moment of CE marking.

Following initial recognition of the development expenditure as an asset, the cost model is applied requiring the asset to be carried at cost less any accumulated amortisation and accumulated impairment losses.

Amortisation of the asset begins when development has been completed and the asset is available for use. It is amortised over the period of expected future benefit. Amortisation is recorded in Research & Development expenses. During the period of development, the asset is tested for impairment annually, or earlier when an impairment indicator occurs. As of balance sheet date, only the development costs of C-Cathez have been capitalized and amortized over a period of 17 years which corresponds to the period over which the intellectual property is protected.

12.4.2.7. Property, plant and equipment

Plant and equipment is stated at cost, net of accumulated depreciation and/or accumulated impairment losses, if any. Repair and maintenance costs are recognised in the income statement as incurred.

Depreciation is calculated on a straight-line basis over the estimated useful life of the asset as follows:

- Land and buildings: 15 to 20 years

- Plant and equipment: 5 to 15 years
- Laboratory equipment: 3 to 5 years
- Office furniture: 3 to 10 years
- Leasehold improvements: 3 to 10 years (based on duration of office building lease)

An item of property, plant and equipment and any significant part initially recognised is derecognised upon disposal or when no future economic benefits are expected from its use or disposal. Any gain or loss arising on derecognition of the asset (calculated as the difference between the net disposal proceeds and the carrying amount of the asset) is included in the income statement when the asset is derecognised. The assets' residual values, useful lives and methods of depreciation are reviewed at each financial year end, and adjusted prospectively, if applicable.

12.4.2.8. Leases

The determination of whether an arrangement is, or contains, a lease is based on the substance of the arrangement at inception date: whether fulfilment of the arrangement is dependent on the use of a specific asset or assets or the arrangement conveys a right to use the asset.

Finance leases, which transfer to the Group substantially all the risks and benefits incidental to ownership of the leased item, are capitalised at the commencement of the lease at the fair value of the leased property or, if lower, at the present value of the minimum lease payments. Lease payments are apportioned between finance charges and reduction of the lease liability so as to achieve a constant rate of interest on the remaining balance of the liability. Finance charges are recognised in the income statement.

Leased assets are depreciated over the useful life of the asset. However, if there is no reasonable certainty that the Group will obtain ownership by the end of the lease term, the asset is depreciated over the shorter of the estimated useful life of the asset and the lease term.

Operating lease payments are recognised as an expense in the income statement on a straight-line basis over the lease term.

From time to time, the Group may enter into sale and leaseback transactions. If the sale and leaseback transaction results in a finance lease, any excess of sales proceeds over the carrying amount is deferred and amortised over the lease term. If the transaction results in an operating lease and the transaction occurred at fair value, any profit or loss is recognised immediately.

12.4.2.9. Impairment of non-financial assets

The Group assesses at each reporting date whether there is an indication that an asset may be impaired. If any indication exists, or when annual impairment testing for an asset is required, the Group estimates the asset's recoverable amount. An asset's recoverable amount is the higher of an asset's or cash-generating unit's (CGU) fair value less costs to sell and its value in use and is determined for an individual asset, unless the asset does not generate cash inflows that are largely independent of those from other assets or group of assets. In assessing value in use, the estimated future cash flows are

discounted to their present value using a pre-tax discount rate that reflects current market assessments of the time value of money and the risks specific to the asset. In determining fair value less costs to sell, an appropriate valuation model is used based on the discounted cash-flow model. For intangible assets under development (like IPRD), only the fair value less costs to sell reference is allowed in the impairment testing process.

Where the carrying amount of an asset or CGU exceeds its recoverable amount, an impairment loss is immediately recognized as an expense and the asset carrying value is written down to its recoverable amount.

An assessment is made at each reporting date as to whether there is any indication that previously recognised impairment losses may no longer exist or may have decreased. If such indication exists, the Group estimates the asset's or cash-generating unit's recoverable amount. A previously recognised impairment loss is reversed only if there has been a change in the assumptions used to determine the asset's recoverable amount since the last impairment loss was recognised. The reversal is limited so that the carrying amount of the asset does not exceed its recoverable amount, nor exceed the carrying amount that would have been determined, net of depreciation, had no impairment loss been recognised for the asset in prior years. Such reversal is recognised in the income statement unless the asset is carried at a revalued amount, in which case the reversal is treated as a revaluation increase. An impairment loss recognised on goodwill is however not reversed in a subsequent period.

As of balance sheet date, the Group has two cash-generating units which consist of the development and commercialization activities on :

- CYAD products candidate series based on CAR-T technology, for the immune-oncology segment; and
- C-Cath$_{ez}$ commercialized medical device, for the cardiology segment.

Indicators of impairment used by the Group are the pre-clinical and clinical results obtained with the technology.

12.4.2.10. Cash and cash equivalents

Cash and cash equivalents in the statement of financial position comprise cash at banks and on hand and very short-term deposits with an original maturity of one month or less. Cash and cash equivalents are carried in the balance sheet at their nominal value.

12.4.2.11. Financial assets

14.4.2.11.a Classification

The Group classifies its financial assets in accordance with IFRS 9 categories for measurement purposes. The classification depends on the purpose for which the financial assets were acquired. Management determines the classification of its financial assets at initial recognition.

‘Amortised cost’ measurement category refers to loans and receivables which are non-derivative financial assets, with fixed or determinable payments that are not quoted in an active market. They are included in current assets, except for maturities greater than 12 months after the end of the reporting period which are classified as non-current assets. This measurement category comprises “cash and cash equivalents”, “short-term investments”, and relevant financial assets within “(non-) current trade and other receivables” and “other (non-) current assets”.

14.4.2.11.b Initial recognition and measurement

All financial assets are recognized initially at fair value plus or minus, in the case of a financial asset not at fair value through profit or loss, directly attributable transaction costs.

14.4.2.11.c Subsequent measurement

After initial measurement, financial assets are subsequently measured at amortised cost using the effective interest rate method (EIR), less impairment. Amortised cost is calculated by taking into account any discount or premium on acquisition and fee or costs that are an integral part of the EIR. The EIR amortisation is included in finance income in the income statement. The losses arising from impairment are recognised in the income statement.

14.4.2.11.d Impairment of financial assets

In relation to the impairment of financial assets, IFRS 9 requires an expected credit loss model as opposed to an incurred credit loss model under IAS 39. The expected credit loss model requires the Group to account for expected credit losses and changes in those expected credit losses at each reporting date to reflect changes in credit risk since initial recognition of the financial assets. In other words, it is no longer necessary for a credit event to have occurred before credit losses are recognised.
Specifically, IFRS 9 requires the Group to recognise a loss allowance for expected credit losses on trade receivables and contract assets.

In particular, IFRS 9 requires the Group to measure the loss allowance for a financial instrument at an amount equal to the lifetime expected credit losses (ECL) if the credit risk on that financial instrument has increased significantly since initial recognition, or if the financial instrument is a purchased or originated credit-impaired financial asset. However, if the credit risk on a financial instrument has not increased significantly since initial recognition (except for a purchased or originated credit-impaired financial asset), the Group is required to measure the loss allowance for that financial instrument at an amount equal to 12-months ECL. IFRS 9 also requires a simplified approach for measuring the loss allowance at an amount equal to lifetime ECL for trade receivables, contract assets and lease receivables in certain circumstances.

Give the current nature and size of operations of the Group, these requirements mainly apply to the financial assets reported under ‘non-current trade receivables’. The carrying value of these receivables

(resulting from Mesoblast license agreement commented further under the disclosure note 12.4.22) take into account a discount rate equal to our partner's incremental borrowing rate and, accordingly, is already credit risk-adjusted. We consider there is no significant additional credit risk related to this receivable, which would not have been captured by discounting effect, both at inception of the receivable and at the reporting date. As such, no additional ECL allowance per se has been recognized for this financial asset or any other financial asset.

Given the nature and size of operations of the Group at prior year-end, there was no difference between the ending provision for impairment in accordance with IAS 39 and the opening loss allowance determined in accordance with IFRS 9 for all of the Group's financial instruments, as discussed in the disclosure note 12.4.2.1.

12.4.2.12. Financial liabilities

12.4.2.12.a Classification

The Group's financial liabilities include "bank loans", "finance leases", "recoverable cash advances", "contingent consideration and other financial liabilities", "trade payables" and relevant financial liabilities within "Other (non-) current liabilities".

The Group classifies and measures its financial liabilities at 'amortised cost' using the effective interest method, except "contingent consideration and other financial liabilities" which are classified and measured at 'fair value through profit or loss'.

12.4.2.12.b Initial recognition and measurement

All financial liabilities are recognized initially at fair value plus or minus, in the case of a financial liabilities not at fair value through profit or loss, directly attributable transaction costs

12.4.2.12.c Subsequent measurement

The subsequent measurement of financial liabilities depends on their classification as above-explained. In particular:

Contingent consideration and other financial liabilities

The contingent consideration and other financial liabilities are recognized and measured at fair value at the acquisition date. After initial recognition, contingent consideration arrangements that are classified as liabilities are re-measured at fair value with changes in fair value recognized in profit or loss in accordance with IFRS 3 and IFRS 9. Therefore, contingent payments will not be eligible for capitalization but will simply reduce the contingent consideration liability.

Details regarding the valuation of the contingent consideration are disclosed in note 12.4.19.2.

Recoverable Cash advances

Recoverable cash advances granted by the Walloon Region are subsequently measured at amortized cost using the cumulative catch-up approach, as described in section 12.4.2.5 above.

12.4.2.12.d Derecognition

A financial liability is derecognised when the obligation under the liability is discharged or cancelled or expires.

When an existing financial liability is replaced by another from the same lender on substantially different terms, or the terms of an existing liability are substantially modified, such an exchange or modification is treated as a derecognition of the original liability and the recognition of a new liability, and the difference in the respective carrying amounts is recognised in the income statement.

12.4.2.13. Provisions

Provisions are recognised when the Group has a present obligation (legal or constructive) as a result of a past event, it is probable that an outflow of resources embodying economic benefits will be required to settle the obligation and a reliable estimate can be made of the amount of the obligation. Where the Group expects some or all of a provision to be reimbursed, for example under an insurance contract, the reimbursement is recognised as a separate asset but only when the reimbursement is virtually certain. The expense relating to any provision is presented in the income statement net of any reimbursement. If the effect of the time value of money is material, provisions are discounted using a current pre-tax rate that reflects, where appropriate, the risks specific to the liability. Where discounting is used, the increase in the provision due to the passage of time is recognised as a finance cost.

Employee benefits

Post-employment plan

The Group operates a pension plan which requires defined contributions (DC) to be funded by the Group externally at a third-party insurance company. Under Belgian law, an employer must guarantee a minimum rate of return on the company's contributions. Therefore, any pension plan (including DC plans) organized in Belgium is treated as defined benefit plans under IAS 19.

At balance sheet date, the minimum rates of return guaranteed by the Group are as follows, in accordance with the law of 18 December 2015:

- 1.75% for the employer's contributions paid as from 1 January 2016 (variable rate based on Governemental bond OLO rates, with a minimum of 1.75% and a maximum of 3.75%);
- 3.25% (fixed rate) for the employer's contributions paid until 31 December 2015.

The cost of providing benefits is determined using the projected unit credit (PUC) method, with actuarial valuations being carried out at the end of each annual reporting period, with the assistance of an independent actuarial firm.

The liability recognized in the balance sheet in respect of the pension plans is the present value of the defined benefit obligation at the end of the reporting period less the fair value of plan assets. The present value of the defined benefit obligation is determined by discounting the estimated future cash outflows using interest rates of high-quality corporate bonds that are denominated in the currency in which the benefits will be paid, and that have terms to maturity approximating to the terms of the related pension obligation.

The current service cost of the defined benefit plan, recognized in the income statement as part of the operating costs, reflects the increase in the defined benefit obligation resulting from employee service in the current year, benefit changes, curtailments and settlements.

Past-service costs are recognized immediately in the income statement.

The net interest cost is calculated by applying the discount rate to the net balance of the defined benefit obligation and the fair value of plan assets. This cost is included in the operating costs in the income statement.

Actuarial gains and losses arising from experience adjustments and changes in actuarial assumptions are charged or credited to other comprehensive income in the period in which they arise.

Short term benefits

Short-term employee benefits are those expected to be settled wholly before twelve months after the end of the annual reporting period during which employee services are rendered, but do not include termination benefits such as wages, salaries, profit-sharing and bonuses and non-monetary benefits paid to current employees.

The undiscounted amount of the benefits expected to be paid in respect of services rendered by employees in an accounting period is recognised in that period. The expected cost of short-term compensated absences is recognised as the employees render services that increase their entitlement or, in the case of non-accumulating absences, when the absences occur, and includes any additional amounts the entity expects to pay as a result of unused entitlements at the end of the period.

Share-based payments

Certain employees, managers and members of the Board of Directors of the Group receive remuneration, as compensation for services rendered, in the form of share-based payments which are “equity-settled”.

Measurement

The cost of equity-settled share-based payments is measured by reference to the fair value at the date on which they are granted. The fair value is determined by using an appropriate pricing model, further details are given in note 12.4.14.

Recognition

The cost of equity-settled share-based payments is recorded as an expense, together with a corresponding increase in equity, over the period in which the service conditions are fulfilled. The cumulative expense recognised for equity-settled transactions at each reporting date until the vesting date reflects the extent to which the vesting period has expired and the Group’s best estimate of the number of equity instruments that will ultimately vest.

The estimate of warrants to vest is revised at each reporting date. The change in estimates will be recorded as an expense with a corresponding correction in equity.

The expense or credit for a period accounted for in the income statement represents the movement in cumulative expense recognised as of the beginning and end of that period.

Modification

Where the terms of an equity-settled transaction award are modified, the minimum expense recognised is the expense as if the terms had not been modified, if the original terms of the award were met. An additional expense is recognised for any modification that increases the total fair value of the share-

based payment transaction, or is otherwise beneficial to the employee as measured at the date of modification.

The incremental fair value granted is the difference between the fair value of the modified equity instrument and the original equity instrument, both estimated as at the date of the modification. If the modification occurs during the vesting period, the incremental fair value granted is included in the measurement of the amount recognized for services received over the period from the modification date until the date when the modified equity instruments vest, in addition to the amount based on the grant date fair value of the original equity instruments, which is recognized over the remainder of the original vesting period. If the modification occurs after vesting date, the incremental fair value granted is recognized immediately, or over the vesting period if the employee is required to complete an additional period of service before becoming unconditionally entitled to those modified equity instruments.

Cancellation

An equity-settled award can be forfeited with the departure of a beneficiary before the end of the vesting period, or cancelled and replaced by a new equity settled award. When an equity-settled award is forfeited, the previously recognised expense is offset and credited in the income statement. When an equity-settled award is cancelled, the previously recognised expense is offset and credited in the income statement. However, if a new award is substituted for the cancelled award, and designated as a replacement award on the date that it is granted, the cancelled and new awards are treated as if they were a modification of the original award, as described in the previous paragraph.

12.4.2.14. Income Taxes

Tax is recognised in the income statement, except to the extent that it relates to items recognised in other comprehensive income or directly in equity. In this case, the tax is also recognised in other comprehensive income or directly in equity, respectively.

Deferred tax

Deferred tax is provided using the liability method on temporary differences at the reporting date between the tax bases of assets and liabilities and their carrying amounts for financial reporting purposes. Deferred tax liabilities are recognised for all taxable temporary differences, except:

- Where the deferred tax liability arises from the initial recognition of goodwill or of an asset or liability in a transaction that is not a business combination and, at the time of the transaction, affects neither the accounting profit nor taxable profit or loss;
- In respect of taxable temporary differences associated with investments in subsidiaries, associates and interests in joint ventures, where the timing of the reversal of the temporary differences can be controlled and it is probable that the temporary differences will not reverse in the foreseeable future.

Deferred tax assets are recognised for all deductible temporary differences, carry forward of unused tax credits and unused tax losses (except if the deferred tax asset arises from the initial recognition of an asset or liability in a transaction other than a business combination and that, at the time of the transaction affects neither accounting nor taxable profit or loss), to the extent that it is probable that taxable profit

will be available against which the deductible temporary differences, and the carry forward of unused tax credits and unused tax losses can be utilised.

The carrying amount of deferred tax assets is reviewed at each reporting date and reduced to the extent that it is not probable that sufficient taxable profit will be available to allow all or part of the deferred tax asset to be utilised. Unrecognised deferred tax assets are reassessed at each reporting date and are recognised to the extent that it has become probable that future taxable profits will allow the deferred tax asset to be recovered.

Deferred tax assets and liabilities are measured at the tax rates that are expected to apply in the year when the asset is realised or the liability is settled, based on tax rates (and tax laws) that have been enacted or substantively enacted at the reporting date.

Deferred tax assets and deferred tax liabilities are offset, if a legally enforceable right exists to set off current tax assets against current income tax liabilities and the deferred taxes relate to income taxes levied by the same taxation authority or either the same taxable entity or different taxable entities where there is an intention to settle the balances on a net basis.

12.4.3. Risk Management

Financial risk factors

Interest rate risk

The interest rate risk is very limited as the Group has only a limited amount of finance leases and outstanding bank loans. So far, because of the immateriality of the exposure, the Group did not enter into any interest hedging arrangements.

Credit risk

Seen the limited amount of trade receivables due to the fact that sales to third parties are not significant, credit risk arises mainly from cash and cash equivalents and deposits with banks and financial institutions. The Group only works with international reputable commercial banks and financial institutions.

Foreign exchange risk

The Group is exposed to foreign exchange risk as certain collaborations or supply agreements of raw materials are denominated in USD. Moreover, the Group has also investments in foreign operations, whose net assets are exposed to foreign currency translation risk (USD). So far, the Group did not enter into any currency hedging arrangements.

At year-end, the foreign exchange risk exposure lied on the cash and short-term deposits denominated in USD.

EUR/USD foreign (loss)/gain exposure	+2%	+1%	-1%	-2%
31 December 2018	(€0.2 million)	(€0.1 million)	+€0.1 million	+€0.2 million
31 December 2017	(€0.7 million)	(€0.3 million)	+€0.3 million	+€0.7 million

A depreciation of 1% on the USD versus EUR would translate into an unrealized foreign exchange loss of €115k for the Group at 31 December 2018.

Liquidity risk

The Group monitors its risk to a shortage of funds using a recurring liquidity planning tool.

The Group's objective is to maintain a balance between continuity of funding and flexibility through the use of bank deposit and finance leases.

The Group is exposed to liabilities and contingent liabilities as a result of the RCAs it has received from the Walloon Government, as we are required to make exploitation decisions.

We refer to note 12.4.18 for an analysis of the Group's non-derivative financial liabilities into relevant maturity groupings based on the remaining period at the balance sheet date to the contractual maturity date. The amounts disclosed in the table are the contractual undiscounted cash flows.

Capital management

The Group's objectives when managing capital are to safeguard Celyad' ability to continue as a going concern in order to provide returns for shareholders and benefits for other stakeholders and to maintain an adequate structure to limit to costs of capital.

12.4.4. Critical accounting estimates and judgments

The preparation of the Group's financial statements requires management to make judgments, estimates and assumptions that affect the reported amounts of revenues, expenses, assets and liabilities, and the disclosure of contingent liabilities, at the end of the reporting period.

Estimates and judgements are continually evaluated and are based on historical experience and other factors, including expectations of future events that are believed to be reasonable under the circumstances. Uncertainty about these assumptions and estimates could result in outcomes that require a material adjustment to the carrying amount of the asset or liability affected in future periods.

In the process of applying the Group's accounting policies, management has made judgments and has used estimates and assumptions concerning the future. The resulting accounting estimates will, by definition, seldom equal the related actual results. The estimates and assumptions that have a significant risk of causing a material adjustment to the carrying amounts of assets and liabilities within the next financial year are addressed below.

Going Concern

When assessing going concern, the company's Board of directors considers mainly the following factors:

- the treasury available at balance sheet date
- the cash burn projected in accordance with approved budget for next 12-month period as from the date of the balance sheet

Revenue

The recognition of revenue relating to license and collaboration agreements involves management estimates and requires judgement as to:

(i) classifying the license agreement (right-to-use or right-to-access license) in accordance with 'Licensing' Application Guidance set forth in IFRS 15;
(ii) identifying the performance obligations comprised in the contract;
(iii) estimating probability for (pre-)clinical development or commercial milestone achievement;
(iv) determining the agreed variable considerations to be included in the transaction price taking into account the constraining limit of the "highly probable" criteria;
(v) allocating the transaction price according to the stand-alone selling price of each of the performance obligations; and
(vi) estimating the finance component in the transaction price, based on the contract expected duration and discount rate.

The management makes its judgment taking into account all information available about clinical status of the underlying projects at the reporting date and the legal analysis of each applicable contracts. Further details are contained in Note 12.4.22.

Recoverable Cash Advances received from the Walloon Region

As explained in note 12.4.2.5, accounting for RCAs requires initial recognition of the fair value of the loan received to determine the benefit of the below-market rate of interest, which shall be measured as the difference between the initial carrying value of the loan and the proceeds received. Loans granted to entities in their early stages of operations, for which there is significant uncertainty about whether any income will ultimately be generated and for which any income which will be generated will not arise until a number of years in the future, normally have high interest rates. Judgment is required to determine a rate which may apply to a loan granted on an open market basis.

In accordance with the RCA agreements, the following two components are assessed when calculating estimated future cash flows:

- 30% of the initial RCA, which is repayable when the company exploits the outcome of the research financed; and
- a remaining amount, which is repayable based on a royalty percentage of future sales milestones.

After initial recognition, RCA liabilities are measured at amortized cost using the cumulative catch up method requiring management to regularly revise its estimates of payments and to adjust the carrying amount of the financial liability to reflect actual and revised estimated cash flows.

Measurement and impairment of non-financial assets

With the exception of goodwill and certain intangible assets for which an annual impairment test is required, the Group is required to conduct impairment tests where there is an indication of impairment of an asset. Measuring the fair value of a non-financial assets requires judgement and estimates by management. These estimates could change substantially over time as new facts emerge or new strategies are taken by the Group. Further details are contained in note 12.4.6.2.

Business combinations

In respect of acquired businesses by the Group, significant judgement is made to determine whether these acquisitions are to be considered as an asset deal or as a business combination. Determining whether a particular set of assets and activities is a business should be based on whether the integrated set is capable of being conducted and managed as a business by a market participant. Moreover, managerial judgement is particularly involved in the recognition and fair value measurement of the acquired assets, liabilities, contingent liabilities and contingent consideration. In making this assessment management considers the underlying economic substance of the items concerned in addition to the contractual terms.

Contingent consideration and other financial liabilities

The Group records a liability for the estimated fair value of contingent consideration arising from business combinations. The estimated amounts are the expected payments, determined by considering the possible scenarios of forecast sales and other performance criteria, the amount to be paid under each scenario, and the probability of each scenario, which is then discounted to a net present value. The estimates could change substantially over time as new facts emerge and each scenario develops.

Deferred Tax Assets

Deferred tax assets for unused tax losses are recognised to the extent that it is probable that taxable profit will be available against which the losses can be utilised. Significant management judgment is required to determine the amount of deferred tax assets that can be recognised, based upon the likely timing and level of future taxable profits together with future tax planning strategies. Further details are contained in note 12.4.20.

Share-based payment transactions

The Group measures the cost of equity-settled transactions with employees by reference to the fair value of the equity instruments at the date at which they are granted. Estimating fair value for share-based payment transactions requires determining the most appropriate valuation model, which is dependent on the terms and conditions of the grant. This estimate also requires determining the most appropriate inputs to the valuation model including the expected life of the share option, volatility and dividend yield and making assumptions about them. The assumptions and models used for estimating fair value for share-based payment transactions are disclosed in note 12.4.14.

12.4.5. Operating segment information

The chief operating decision-maker (CODM), who is responsible for making strategic decisions, allocating resources and assessing performance of the Group, has been identified as the Board of Directors.

Since the acquisition of the oncological platform in 2015, the management and the CODM have determined that there are two operating segments, being:

- the cardiology segment, regrouping the Cardiopoiesis platform, the Corquest Medical, Inc. (Corquest) platform and C-Cath$_{ez}$; and
- the immuno-oncology segment regrouping all assets developed based on the CAR-T cell platform.

Although the Group is currently active in Europe and in the US, no geographical financial information is currently available given the fact that the core operations are currently still in a study phase. No disaggregated information on product level or geographical level or any other level currently exists and hence also not considered by the Board of Directors for assessing performance or allocating resources.

CODM is not reviewing assets by segments, hence no segment information per assets is disclosed. At reporting date, all of the Group non-current assets are located in Belgium, except the leasehold improvements made in the offices of Celyad Inc located in Boston, USA.

€ '000	For the year ended 31 December 2018,			
	Cardiology	Immuno-oncology	Corporate	**Group Total**
Revenues	2,399	716	-	3,115
Cost of Sales	-	-	-	-
Gross Profit	**2,399**	**716**	**-**	**3,115**
Research & Development expenses	(375)	(23,202)	-	(23,577)
General & Administrative expenses	-	-	(10,387)	(10,387)
Other Income and expenses	(686)	(6,765)	130	(7,321)
Recurring operating profit (Loss) - REBIT	**1,338**	**(29,251)**	**(10,257)**	**(38,170)**
Non-recurring operating (expenses)/income	-	-	-	-
Operating Profit (Loss) - EBIT	**1,338**	**(29,251)**	**(10,257)**	**(38,170)**

Net Financial Result	-	-	743	743
Profit (Loss) before taxes	**1,338**	**(29,251)**	**(9,515)**	**(37,427)**
Income Taxes	-	-	-	-
Profit (Loss) for the year 2018	**1,338**	**(29,251)**	**(9,515)**	**(37,427)**

In 2018, the Group entered into a license agreement with Mesoblast relating to the C-Cathez device, in the Cardiology segment, resulting in €2.4 million revenue recognized. See disclosure note 12.4.22.

Since mid of 2016, the Company is fully focused on the development of its immuno-oncology platform. Therefore, in 2018, most of the R&D expenses were incurred in the immuno-oncology segment, in line with prior year.

€ '000	For the year ended 31 December 2017,			
	Cardiology	Immuno-oncology	Corporate	**Group Total**
Revenues	35	3,505		3,540
Cost of Sales		(515)		(515)
Gross Profit	**35**	**2,990**	**-**	**3,025**
Research & Development expenses	(2,881)	(20,027)	-	(22,908)
General & Administrative expenses	-	-	(9,310)	(9,310)
Other operating Income & Charges	1,070	151	1,370	2,590
Recurring operating profit (Loss) - REBIT	(1,776)	(16,886)	(7,940)	(26,603)
Non-recurring operating (expenses)/income	(1,932)	-	(24,341)	(26,273)
Operating Profit (Loss) - EBIT	**(3,708)**	**(16,886)**	**(32,281)**	**(52,876)**
Net Financial Result	-	-	(3,518)	(3,518)
Profit (Loss) before taxes	**(3,708)**	**(16,886)**	**(35,799)**	**(56,396)**
Income Taxes	-	-	1	1
Profit (Loss) for the year 2017	**(3,708)**	**(16,886)**	**(35,798)**	**(56,395)**

In 2017, there were some important non-recurring items impacting significantly the consolidated income statement. See disclosure note 12.4.28.

12.4.6. Intangible assets

12.4.6.1 Intangible assets details and balance roll forward

The change in intangible assets is broken down as follows, per class of assets:

(€'000)	Goodwill	In-process research and development	Development costs	Patents, licences, trademarks	Software	Total
Cost:						
At 1 January 2017	**1,040**	**39,655**	**1,084**	**13,337**	**202**	**55,318**

Additions	0	0	0	0	0	0
Currency translation adjustments	(126)	(4,801)	-	-	3	(4,924)
Divestiture	0	0	0	0	(93)	(93)
At 31 December 2017	**914**	**34,854**	**1,084**	**13,337**	**111**	**50,300**
Additions	0	0	0	877	55	932
Currency translation adjustments	(31)	(1,177)	-	-	-	(1,208)
Divestiture	0	0	0	0	-2	-2
At 31 December 2018	**883**	**33,677**	**1,084**	**14,214**	**164**	**50,022**
Accumulated amortisation						
At 1 January 2017	**0**	**0**	**(279)**	**(5,373)**	**(100)**	**(5,752)**
Amortisation charge	0	0	(66)	(7,964)	(7)	(8,038)
Divestiture	0	0	-	-	(3)	(3)
At 31 December 2017	**0**	**0**	**(345)**	**(13,337)**	**(110)**	**(13,792)**
Amortisation charge	-	-	(66)	(1)	(0)	(68)
Divestiture	0	0	0	0	2	2
Impairment (non-recurring loss)	-	-	-	-	-	-
At 31 December 2018	**0**	**0**	**(411)**	**(13,338)**	**(109)**	**(13,858)**
Net book value						
Cost	914	34,854	1,084	13,337	111	50,300
Accumulated amortisation	0	0	(345)	(13,337)	(110)	(13,792)
At 31 December 2017	**914**	**34,854**	**739**	**0**	**1**	**36,508**
Cost	883	33,677	1,084	14,214	164	50,022
Accumulated amortisation	-	-	(411)	(13,338)	(109)	(13,858)
At 31 December 2018	**883**	**33,677**	**673**	**876**	**55**	**36,163**

The capitalised development costs relate to the development of C-Cathez. Since May 2012 and the CE marking of C-Cathez, the development costs of C-Cathez are capitalized and amortized over the estimate residual intellectual property protection as of the CE marking (ie. until 2029). No other development costs have been capitalised up till now. All other programs (ao. C-Cure, CYAD-01, CYAD-02, CYAD-101…) related development costs have been assessed as not being eligible for capitalisation and have therefore been recognised in the income statement as research and development expenses. Software is amortized over a period of 3 to 5 years.

Goodwill, In-process R&DPatents, Licenses and Trademarks relate to the following items:

- Goodwill and In-process research and development resulted from the purchase price allocation exercise performed for the acquisition of Oncyte LLC in 2015. As of balance sheet date, Goodwill and In-Process Research and Development are not amortized but tested for impairment.

- A licence, granted in August 2007 by Mayo Clinic (for an amount of €9.5 million) upon the Group's inception and an extension to the licensed field of use, granted on 29 October 2010 for a total amount of €2.3 million. The licence and its extension were amortised straight line over a period of 20 years, in accordance with the license term. A €6.0 million impairment loss has been recognised on the remaining net book value in the year ended 31 December 2017.
- Patents acquired upon the acquisition of CorQuest LLC in November 2014. The fair value of these intellectual rights was then determined to be €1.5 million. These patents were amortised over 18 years, corresponding to the remaining intellectual property protection filed for the first patent application in 2012. A €1.2 million impairment loss has been recognised on the remaining net book value in the year ended 31 December 2017.
- Exclusive Agreement for Horizon Discovery's shRNA Platform to develop next-generation allogenic CAR-T Therapies acquired for $1.0 million end of December 2018. This patent is amortised over the remaining period of 10 years, corresponding to the remaining intellectual property protection of 20 years, filed for the first patent application in 2008.

12.4.6.2 Impairment testing

Impairment testing is detailed below.

Oncyte LLC goodwill and IPRD impairment test

Goodwill and In-process research and development (IPRD) exclusively relate to the acquisition of the former entity Oncyte LLC (meanwhile liquidated into Celyad SA) which was acquired in 2015. Management performs an annual impairment test on goodwill and on 'indefinite lived assets' that are not amortized in accordance with the accounting policies stated in notes 12.4.2.6 and 12.4.2.9. The impairment test has been performed at the level the immuno-oncology segment corresponding to the CGU to which the goodwill and the IPRD belong. The recoverable amount has been calculated based on the fair value less costs to sell model, which requires the use of assumptions. The calculations use cash flow projections based on 12-year period business plan based on probability of success of CYAD-01 and CYAD-101 product candidates as well as extrapolations of projected cash flows resulting from the future expected sales associated with CYAD-01 and CYAD-101. CGU recoverable value, determined accordingly, exceeds its carrying amount. Accordingly, no impairment loss was recognized neither on goodwill nor on the IPRD intangible assets at balance sheet date.

Management's key assumptions about projected cash flows when determining fair value less costs to sell are as follows:

- Discount rate (WACC): 13.9%, in line with industry standards for biotechnological companies and WACC used by Equity Research companies following the Group

- Sales revenue growth in the Terminal Value: a decline of 25% of the estimated product revenue has been considered in the Terminal Value (for infinite extrapolation purposes)

- Probabilities of Success (PoS): based on Clinical Development Success Rates observed for the period 2006-2015 determined by independent business intelligence consulting companies for hematologic and solid oncological diseases. Probability of our product candidates getting on the market used were in line with prior year and as follows:

PoS	Phase I	Phase I to II	Phase II to III	Phase III to BLA	BLA to Approval	Cumulative PoS
CYAD-01 CYAD-101	100%	63%	26%	45%	84%	**6.4%**

The sensitivity analyses are based on a change in an assumption while holding all other assumptions constant. The following table presents the sensitivity analyses of the recoverable amount of the CGU associated to the immuno-oncology operations:

Sensitivity analysis		**Discount rate (WACC)**		
Terminal Revenue Growth rate	**Impact on model value**	**13.9%**	**14.65%**	**15.4%**
	-35%	-8%	-16%	-23%
	-30%	-5%	-13%	-20%
	-25%	Model Reference	-9%	-16%

Even at the lower terminal revenue growth and higher discount rate, the recoverable value of the CGU exceeds its carrying amount at balance sheet date.

C-Cure and Corquest impairment test

Pursuant to prior year's strategic decision to focus all the efforts of the Group on the development of the immuno-oncology platform and the lack of strategic business development opportunities identified for the C-Cure (Mayo Licenses) and HeartXs (Corquest patents) technologies, these assets had been fully impaired as of 31 December 2017. CGU's recoverable amounts being confirmed to be zero at current year-end, the 100% impairment allowance has been carried forward at balance sheet date.

12.4.7. Property, plant and equipment

(€'000)	Equipment	Furnitures	Leasehold	Total

Cost:				
At 1 January 2017	**3,999**	**465**	**2,947**	**7,410**
Additions	823	-	129	952
Acquisition of BMS SA	-	-	-	-
Disposals	(281)	(9)	(9)	(299)
Currency translation adjustments	(3)	(11)	(8)	(23)
At 31 December 2017	**4,537**	**445**	**3,059**	**8,041**
Additions	564	10	260	833
Reclass BMS SA	(1,032)	24	1,007	(0)
Disposals	(123)	(154)	(140)	(417)
Currency translation adjustments	1	4	8	13
At 31 December 2018	**3,947**	**329**	**4,195**	**8,470**
Accumulated depreciation:				
At 1 January 2017	**(2,752)**	**(184)**	**(912)**	**(3,847)**
Depreciation charge (note 5.25)	(424)	(56)	(486)	(966)
Acquisition of BMS SA	-	-	-	-
Currency translation adjustments	1	1	0	2
Disposals	50	9	2	61
At 31 December 2017	**(3,126)**	**(229)**	**(1,395)**	**(4,750)**
Reclass BMS SA	786	(24)	(761)	(0)
Depreciation charge (note 5.25)	(529)	(49)	(469)	(1,048)
Disposals	117	93	133	343
Currency translation adjustments	0	(1)	(1)	(1)
At 31 December 2018	**(2,751)**	**(211)**	**(2,494)**	**(5,456)**
Net book value				
Cost	4,537	445	3,059	8,041
Accumulated depreciation	(3,126)	(229)	(1,395)	(4,750)
At 31 December 2017	**1,412**	**215**	**1,664**	**3,290**
Cost	3,947	328	4,195	8,470
Accumulated depreciation	(2,751)	(211)	(2,494)	(5,456)
At 31 December 2018	**1,196**	**117**	**1,701**	**3,013**

Property, Plant and Equipment is mainly composed of office furniture, leasehold improvements, and laboratory equipment.

The acquisition of BMS in 2016 was accounted for as an asset deal. The fair value of the assets acquired is concentrated in one identifiable asset, i.e. the GMP laboratories. A reclass of BMS equipments to Leashold has been operated in 2018 without having any impact on the net book value. The difference between the purchase price and the net assets of BMS at the date of acquisition is then allocated entirely to the Property, Plant and Equipment.

Finance leases

Lease contracts considered as finance lease relate to some contracts with financial institutions and relate to laboratory and office equipment. All finance leases have a maturity of three years. A key common feature is that they include a bargain option to purchase the leased asset at the end of the three-year-lease term.

The total of future minimum lease payments at the end of the reporting period, and their present value reported on the balance sheet, are similar amounts.

12.4.8. Non-current trade receivable and other non-current assets

(€'000)	As at 31 December,	
	2018	2017
Non-current trade receivables Mesoblast licence agreement	1,743	0
Total	**1,743**	**0**

In May 2018, the Group has entered into an exclusive license agreement with Mesoblast. More details on the transaction and its revenue recognition pattern is set forth in disclosure note 12.4.22.

(€'000)	As at 31 December,	
	2018	2017
Deposits	215	273
R&D Tax credit receivable	1,472	1,161
Total	**1,687**	**1,434**

The non-current assets refer to security deposits paid to the lessors of the building leased by the Group and to the Social Security administration.

In 2017, the Company recognized for the first time a receivable on the amounts to collect from the federal government as R&D tax credit (€1.2 million), including a one-off catch-up effect. For the current year, a further R&D tax credit receivable has been recorded for the 2018 base increment (€0.3 million).

12.4.9. Trade receivables and other current assets

(€'000)	As at 31 December,	
	2018	2017
Trade receivables	277	64
Advance deposits	90	152
Other trade receivables	0	17
Total Trade and Other receivables	**367**	**233**
Prepaid expenses	593	744
VAT receivable	255	391
Income and other tax receivables	737	1,120

Total Other current assets	**1,585**	**2,255**

Impairment of receivables is assessed on an individual basis at the end of each accounting year.

At balance sheet date, no receivable was overdue. There were no carrying amounts for trade and other receivables denominated in foreign currencies and no impairments were recorded. Trade receivables balance increase due to a non-clinical supply services agreement signed with Ono (€0.2 million receivable at year-end). See disclosure note 12.4.22.

At 31 December 2017, income tax receivables include an open balance for two fiscal years (2017 and 2016), while only one (2018) at 31 December 2018. As of 31 December 2018, other trade receivables mainly decrease due to lower withholding tax to be received from our short-term deposits interests.

12.4.10. Short-term investments

(€'000)	As at 31 December,	
	2018	**2017**
Short-term cash deposits	8,559	10,653
Investment in equity securities	639	-
Total	**9,197**	**10,653**

Amounts recorded as short-term investments correspond to short-term cash deposits with fixed interest rates. Short-term deposits are made for variable periods (from 1 to 12 months) depending on the short-term cash requirements of the Group. Interest is calculated at the respective short-term deposit rates.
Mesoblast equity shares received in settlement of the upfront payment for the C-CathEZ licensing agreement (see disclosure note 12.4.22) are measured at fair value through profit or loss. The fair value of these listed securities is based on public market prices. Accordingly, their carrying value has been marked-to-market value at 2018 year-end.

12.4.11. Cash and cash equivalents

(€'000)	As at 31 December,	
	2018	**2017**
Cash at bank and on hand	40,542	23,253
Total	**40,542**	**23,253**

Cash at banks earn interest at floating rates based on daily bank deposit rates.

The credit quality of cash and cash equivalents and short-term cash deposit balances may be categorised between A-1 and A+ based on Standard and Poor's rating at 31 December 2018.

12.4.12. Subsidiaries fully consolidated

The consolidation scope of Celyad Group is as follows, for both current and comparative years presented in these year-end financial statements:

Name	Country of Incorporation and Place of Business	Nature of Business	Proportion of ordinary shares directly held by parent (%)	Proportion of ordinary shares held by the group (%)	Proportion of ordinary shares held by non-controlling interests (%)
Celyad Inc	USA	Biopharma	100%	100%	0%
Oncyte LLC	USA	Biopharma	100%	100%	0%
CorQuest Inc	USA	Medical Device	100%	100%	0%
Biological Manufacturing Services SA	Belgium	GMP laboratories	100%	100%	0%

Biologicial Manufacturing Services SA (BMS) has been acquired in May 2016. BMS owns GMP laboratories. BMS rent its laboratories to Celyad SA since 2009 and until 30 April 2016. Until the acquisition, BMS had been treated as a related party to Celyad.

Cardio3 Inc was incorporated in 2011 to support clinical and regulatory activities of the Group in the US. Cardio3 Inc was renamed in Celyad Inc in 2015. The growth of the activities of Celyad Inc is associated to the development of the US clinical and regulatory activities of the Group in the US.

Corquest Inc has been acquired on 5 November 2014. Corquest Inc. is developing Heart XS, a new access route to the left atrium.

Oncyte LLC had been acquired on 21 January 2015. It has been liquidated in March 2018. Oncyte LLC was the company hosting the CAR T-Cell portfolio of clinical and pre-clinical stage immuno-oncology IP assets, as disclosed in our previous annual reports. In 2018, as a result of the liquidation, these IP assets have been transferred to Celyad SA, without any impact on the Group's operations.

12.4.13. Share capital

The number of shares issued is expressed in units.

	As at 31 December,	
	2018	2017

Total number of issued and outstanding shares	11,942,344	9,867,844
Total share capital (€'000)	**41,552**	**34,337**

As of 31 December 2018, the share capital amounts to €41,552k represented by 11,942,344 fully authorized and subscribed and paid-up shares with a nominal value of €3.48 per share. This number does not include warrants issued by the Company and granted to certain directors, employees and non-employees of the Company.

History of the capital of the Company

The Company has been incorporated on 24 July 2007 with a share capital of €62,500 by the issuance of 409,375 class A shares. On 31 August 2007, the Company has issued 261,732 class A shares to Mayo Clinic by way of a contribution in kind of the upfront fee that was due upon execution of the Mayo Licence for a total amount of €9,500,000.

Round B Investors have participated in a capital increase of the Company by way of a contribution in kind of a convertible loan (€2,387,049) and a contribution in cash (€4,849,624 of which €1,949,624 uncalled) on 23 December 2008; 204,652 class B shares have been issued at the occasion of that capital increase. Since then, the capital is divided in 875,759 shares, of which 671,107 are class A shares and 204,652 are class B shares.

On 29 October 2010, the Company closed its third financing round resulting in a capital increase totalling €12,100,809. The capital increase can be detailed as follows:

- capital increase in cash by certain existing investors for a total amount of €2,609,320.48 by the issuance of 73,793 class B shares at a price of €35.36 per share;
- capital increase in cash by certain existing investors for a total amount of €471,240 by the issuance of 21,000 class B shares at a price of €22.44 per share;
- capital increase in cash by certain new investors for a total amount of €399,921.60 by the issuance of 9,048 class B shares at a price of €44.20 per share;
- exercise of 12,300 warrants ("Warrants A") granted to the Round C investors with total proceeds of €276,012 and issuance of 12,300 class B shares. The exercise price was €22.44 per Warrant A;
- contribution in kind by means of conversion of the loan C for a total amount of €3,255,524.48 (accrued interest included) by the issuance of 92,068 class B shares at a conversion price of €35.36 per share;
- contribution in kind by means of conversion of the loan D for a total amount of €2,018,879.20 (accrued interest included) by the issuance of 57,095 class B shares at a conversion price of €35.36 per share. The loan D is a convertible loan granted by certain investors to the Company on 14 October 2010 for a nominal amount of €2,010,000.
- contribution in kind of a payable towards Mayo Foundation for Medical Education and Research for a total amount of €3,069,911 by the issuance of 69,455 class B shares at a price of €44.20 per share. The payable towards Mayo Clinic was related to (i) research undertaken by Mayo Clinic in the years 2009 and 2010, (ii) delivery of certain materials, (iii) expansion of the Mayo Clinical Technology Licence Contract by way the Second Amendment dated 18 October 2010.

On 5 May 2011, pursuant the decision of the Extraordinary General Meeting, the capital was reduced by an amount of €18,925,474 equivalent to the outstanding net loss as of 31 December 2010.

On 31 May 2013, the Company closed its fourth financing round, the 'Round D financing'. The convertible loans E, F, G and H previously recorded as financial debt were converted in shares which led to an increase in equity for a total amount of €28,645k of which € 5,026k is accounted for as capital and € 6,988k as share premium. The remainder (€ 16,613k) is accounted for as other reserves. Furthermore, a contribution in cash by existing shareholders of the Company led to an increase in share capital and issue premium by an amount of €7,000k.

At the Extraordinary Shareholders Meeting of 11 June 2013 all existing classes of shares of the Company have been converted into ordinary shares. Preferred shares have been converted at a 1 for 1 ratio and subsequently.

On 5 July 2013, the Company completed its Initial Public Offering. The Company issued 1,381,500 new shares at €16.65 per shares, corresponding to a total of €23,002k.

On 15 July 2013, the over-allotment option was fully exercised for a total amount of €3,450k corresponding to 207,225 new shares. The total IPO proceeds amounted to €26,452k and the capital and the share premium of the Company increased accordingly. The costs relating to the capital increases performed in 2013 amounted to €2.8 million and are presented in deduction of share premium.

On 11 June 2013, the Extraordinary General Shareholders' Meeting of Celyad SA authorized the Board of Directors to increase the share capital of the Company, in one or several times, and under certain conditions set forth in extenso in the articles of association. This authorization is valid for a period of five years starting on 26 July 2013 and until 26 July 2018. The Board of Directors may increase the share capital of the Company within the framework of the authorized capital for an amount of up to €21,413k.

Over the course of 2014, the capital of the Company was increased in June 2014 by way of a capital increase of €25,000k represented by 568,180 new shares fully subscribed by Medisun International Limited.

In 2014, the capital of the Company was also increased by way of exercise of Company warrants. Over four different exercise periods, 139,415 warrants were exercised resulting in the issuance of 139,415 new shares. The capital and the share premium of the Company were therefore increased respectively by €488k and €500k.

In January 2015, the shares of Oncyte LLC were contributed to the capital of the Company, resulting in a capital increase of €3,452k and the issuance of 93,087 new shares.

In 2015, the Company conducted two fund raisings. A private placement was closed in March resulting in a capital increase of €31,745k represented by 713,380 new shares. The Company also completed an IPO on Nasdaq in June, resulting in a capital increase of €87,965k represented by 1,460,000 new shares.

Also in 2015, the capital of the Company was also increased by way of exercise of Company warrants. Over three different exercise periods, 6,749 warrants were exercised resulting in the issuance of 6,749 new shares. The capital and the share premium of the Company were therefore increased respectively by €23k and €196k.

Over 2017 the capital of the Company was also increased by way of exercise of Company warrants. Over four different exercise periods, 225,966 warrants were exercised resulting in the issuance of 225,966 new shares. The capital of the Company was therefore increased by €625k.

In August 2017, pursuant to the amendment of the agreements with Celdara Medical LLC and Dartmouth College, the CAR-T technology inventors, the capital of the Company was increased by way of contribution in kind of a liability owed to Celdara Medical LLC. 328,275 new shares were issued at a price of €32.35 (being Celyad share's average market price for the 30 days preceeding the transaction) and the capital and the share premium of the Company were therefore increased respectively by €1,141k and €9,479k without this had an impact on the cash and cash equivalents, explaining why such transaction is not disclosed in the consolidated statement of cashflows.
In May 2018 the Company completed a global offering of $54.4 million (€46.1 million), resulting in cash proceeds for an amount of €43.0 million net of bank fees and transaction costs.

As of 31 December 2018, all shares issued have been fully paid.

The following share issuances occurred since the incorporation of the Company:

Category	Transaction date	Description	# of shares	Par value (in €)
Class A shares	24 July 2007	Company incorporation	409,375	0.15
Class A shares	31 August 2007	Contribution in kind (upfront fee Mayo Licence)	261,732	36.30
Class B shares	23 December 2008	Capital increase (Round B)	137,150	35.36
Class B shares	23 December 2008	Contribution in kind (Loan B)	67,502	35.36
Class B shares	28 October 2010	Contribution in cash	21,000	22.44
Class B shares	28 October 2010	Contribution in kind (Loan C)	92,068	35.36
Class B shares	28 October 2010	Contribution in kind (Loan D)	57,095	35.36
Class B shares	28 October 2010	Contribution in cash	73,793	35.36
Class B shares	28 October 2010	Exercise of warrants	12,300	22.44
Class B shares	28 October 2010	Contribution in kind (Mayo receivable)	69,455	44.20
Class B shares	28 October 2010	Contribution in cash	9,048	44.20
Class B shares	31 May 2013	Contribution in kind (Loan E)	118,365	38.39
Class B shares	31 May 2013	Contribution in kind (Loan F)	56,936	38.39
Class B shares	31 May 2013	Contribution in kind (Loan G)	654,301	4.52
Class B shares	31 May 2013	Contribution in kind (Loan H)	75,755	30.71
Class B shares	31 May 2013	Contribution in cash	219,016	31.96
Class B shares	4 June 2013	Conversion of warrants	2,409,176	0.01
Ordinary shares	11 June 2013	Conversion of Class A and Class B shares in ordinary shares	4,744,067	-
Ordinary shares	5 July 2013	Initial Public Offering	1,381,500	16.65
Ordinary shares	15 July 2013	Exercise of over-allotment option	207,225	16.65
Ordinary shares	31 January 2014	Exercise of warrants issued in September 2008	5,966	22.44
Ordinary shares	31 January 2014	Exercise of warrants issued in May 2010	333	22.44
Ordinary shares	31 January 2014	Exercise of warrants issued in January 2013	120,000	4.52
Ordinary shares	30 April 2014	Exercise of warrants issued in September 2008	2,366	22.44
Ordinary shares	16 June 2014	Capital increase	284,090	44.00

Ordinary shares	30 June 2014	Capital increase	284,090	44.00
Ordinary shares	4 August 2014	Exercise of warrants issued in September 2008	5,000	22.44
Ordinary shares	4 August 2014	Exercise of warrants issued in October 2010	750	35.36
Ordinary shares	3 November 2014	Exercise of warrants issued in September 2008	5,000	22.44
Ordinary shares	21 January 2015	Contribution in kind (Celdara Medical LLC)	93,087	37.08
Ordinary shares	7 February 2015	Exercice of warrant issued in May 2010	333	22.44
Ordinary shares	3 March 2015	Capital increase	713,380	44.50
Ordinary shares	11 May 2015	Exercice of warrant issued in May 2010	500	22.44
Ordinary shares	24 June 2015	Capital increase	1,460,000	60.25
Ordinary shares	4 August 2015	Exercice of warrant issued in May 2010	666	22.44
Ordinary shares	4 August 2015	Exercice of warrant issued in October 2010	5,250	35.36
Ordinary shares	1 february 2017	Exercice of warrant issued in May 2013	207,250	2.64
Ordinary shares	2 May 2017	Exercice of warrant issued in May 2013	4,900	2.64
Ordinary shares	1 August 2017	Exercice of warrant issued in May 2013	7,950	2.64
Ordinary shares	23 August 2017	Contribution in kind (Celdara Medical LLC)	328,275	32.35
Ordinary shares	9 November 2017	Exercice of warrant issued in May 2013	5,000	2.64
Ordinary shares	9 November 2017	Exercice of warrant issued in October 2010	866	35.36
Ordinary shares	7 February 2018	Exercice of warrant issued in May 2013	4,500	2.64
Ordinary shares	22 May 2018	Capital increase	2,070,000	22.29

(€000)

Date	Nature of the transactions	Share Capital	Share premium	Number of shares
	Balance as at January 1st, 2017	32,571	158,010	9,313,603
	Issue of shares related to exercise of warrants	625		225,966
	Capital increase resulting from Celdara and Dartmouth College agreements amendment	1,141	9,479	328,275
	Share-based payments		2,808	
	Balance as at December 31, 2017	34,337	170,297	9,867,844
	Issue of shares related to exercise of warrants	12	0	4,500
	Capital increase as a result of the global offering	7,204	35,796	2,070,000
	Share-based payments		56	
	Balance as at December 31, 2018	41,552	206,149	11,942,344

The total number of shares issued and outstanding as of 31 December 2018 totals 11,942,344 and are ordinary common shares.

12.4.14. Share-based payments

The Company operates an equity-based compensation plan, whereby warrants are granted to directors, management and selected employees and non-employees. The warrants are accounted for as equity-

settled share-based payment plans since the Company has no legal or constructive obligation to repurchase or settle the warrants in cash.

Each warrant gives the beneficiaries the right to subscribe to one common share of the Company. The warrants are granted for free and have an exercise price equal to the lower of the average closing price of the Celyad share over the 30 days prior to the offer, and the last closing price before the day of the offer, as determined by the Board of Directors of the Company.

Changes in the number of warrants outstanding and their related weighted average exercise prices are as follows:

	2018		2017	
	Weighted average exercise price (in €)	Number of warrants	Weighted average exercise price (in €)	Number of warrants
Outstanding as at 1 January	**31.76**	674,962	**20.92**	**571,444**
Granted	23.09	111,600	30.37	367,100
Forfeited	28.79	50,833	28.50	31,817
Exercised	2.64	4,500	2.77	225,966
Expired	-	-	22.44	5,799
At 31 December	**30.71**	**731,229**	**31.76**	**674,962**

There were 4,500 warrants exercised in 2018, that were issued in May 2013.

Warrants outstanding at the end of the year have the following expiry date and exercise price:

Warrant plan issuance date	Vesting date	Expiry date	Number of warrants outstanding as at 31 December, 2018	Number of warrants outstanding as at 31 December, 2017	Exercise price per share
29 October 2010	29 October 2013	29 October 2020	766	766	35.36
06 May 2013	06 May 2016	06 May 2023	2,500	7,000	2.64
05 May 2014	05 May 2017	05 May 2024	60,697	60,697	36.69
05 November 2015	05 November 2018	05 November 2025	245,982	253,065	33.27
08 December 2016	08 December 2019	08 December 2021	42,500	45,000	22.46
29 June 2017	29 June 2020	29 June 2022	294,484	308,434	31.50
26 October 2018	26 October 2021	26 October 2023	84,300		21.16
			731,229	**674,962**	

Warrants issued on 29 October 2010

At the Extraordinary Shareholders Meeting of 29 October 2010, a plan of 79,500 warrants was approved. Warrants were offered to Company's employees, non-employees and directors. Out of the 79,500 warrants offered, 61,050 warrants were accepted by the beneficiaries and 766 warrants are outstanding on the date hereof.

The 61,050 warrants were vested in equal tranches over a period of three years. The warrants become 100% vested after the third anniversary the issuance. The warrants that are vested can only be exercised at the end of the third calendar year following the issuance date, thus starting on 1 January 2014. The exercise price amounts to €35.36. Warrants not exercised within 10 years after issue become null and void.

Warrants issued on 6 May 2013

At the Extraordinary Shareholders Meeting of 6 May 2013, a plan of 266,241 warrants was approved. Warrants were offered to Company's employees and management team. Out of the 266,241 warrants offered, 253,150 warrants were accepted by the beneficiaries and 2,500 warrants are outstanding on the date hereof.

The 253,150 warrants were vested in equal tranches over a period of three years. The warrants become 100% vested after the third anniversary the issuance. The warrants that are vested can only be exercised at the end of the third calendar year following the issuance date, thus starting on 1 January 2017. The exercise price amounts to €2.64. Warrants not exercised within 10 years after issue become null and void.

Warrants issued on 5 May 2014

At the Extraordinary Shareholders Meeting of 5 May 2014, a plan of 100,000 warrants was approved. Warrants were offered to Company's new comers (employees, non-employees and directors) in five different tranches. Out of the warrants offered, 94,400 warrants were accepted by the beneficiaries and 60,697 warrants are outstanding on the date hereof.

The 100,000 warrants were vested in equal tranches over a period of three years. The warrants become 100% vested after the third anniversary the issuance. The warrants that are vested can only be exercised at the end of the third calendar year following the issuance date, thus starting on 1 January 2018. The exercise price of the different tranches ranges from €33.49 to €45.05. Warrants not exercised within 10 years after issue become null and void.

Warrants issued on 5 November 2015

At the Extraordinary Shareholders Meeting of 5 November 2015, a plan of 466,000 warrants was approved. Warrants were offered to Company's new comers (employees, non-employees and directors) in five different tranches. Out of the warrants offered, 343,550 warrants were accepted by the beneficiaries and 245,982 warrants are outstanding on the date hereof.

Theses warrants vest in equal tranches over a period of three years. The warrants become 100% vested after the third anniversary of issuance. The warrants that are vested can only be exercised as from the end of the third calendar year following the issuance date, thus starting on 1 January 2019. The exercise price of the different tranches ranges from €15.90 to €34.65. Warrants not exercised within 10 years after issue become null and void.

Warrants issued on 8 December 2016

On 8 December 2016, the Board of Directors issued a new plan of 100,000 warrants. An equivalent number of warrants were cancelled from the remaining pool of warrants of the plan of 5 November

2015. Warrants were offered to Company's new comers (employees and non-employees) in two different tranches. Out of the warrants offered, 45,000 warrants were accepted by the beneficiaries and 42,500 warrants are outstanding on the date of the financial statements.

Theses warrants will vest in equal tranches over a period of three years. The warrants become 100% vested after the third anniversary of issuance. The warrants that are vested can only be exercised as from the end of the third calendar year following the issuance date, thus starting on 1 January 2020. The exercise price of the different tranches ranges from €17.60 to €36.81. Warrants not exercised within 5 years after issue become null and void.

Warrants issued on 29 June 2017

At the Extraordinary Shareholders Meeting of 29 June 2017, a plan of 520,000 warrants was approved. Warrants were offered in different tranches to beneficiaries (employees, non-employees and directors). Out of the warrants offered, 312,100 warrants were accepted by the beneficiaries and 294,484 warrants are outstanding on the date hereof.

Theses warrants will be vested in equal tranches over a period of three years. The warrants become 100% vested after the third anniversary of issuance. The warrants that are vested can only be exercised as from the end of the third calendar year following the issuance date, thus starting on 1 January 2021. The exercise price of the different tranches ranges from €31.34 to €47.22. Warrants not exercised within 5 years after issue become null and void.

Warrants issued on 26 October 2018

On 26 October 2018, the Board of Directors issued a new plan of 700,000 warrants. Warrants were offered in different tranches to beneficiaries (employees, non-employees and directors). Out of the warrants offered, 89,300 warrants were accepted by the beneficiaries and 84,300 warrants are outstanding on the date of the financial statements.

Theses warrants will vest in equal tranches over a period of three years. The warrants become 100% vested after the third anniversary of issuance. The warrants that are vested can only be exercised as from the end of the third calendar year following the issuance date, thus starting on 1 January 2022. The exercise price of the different tranches ranges from €21.16 to €22.04. Warrants not exercised within 5 years after issue become null and void.

As a result, at 31 December 2018, there are 731,229 Warrants outstanding which represent approximately 6.12% of the total number of all its issued and outstanding voting financial instruments.

The fair value of the warrants has been determined at grant date based on the Black-Scholes formula. The variables, used in this model, are:

	Warrants issued on							
	29 October 2010	31 January 2013	06 May 2013	05 May 2014	05 Nov. 2015	08 Dec. 2016	29 June 2017	26 October 2018
Number of warrants issued	79,500	140,000	266,241	100,000	466,000	100,000	520,000	700,000
Number of warrants granted	61,050	120,000	253,150	94,400	343,550	45,000	334,400	89,300

Number of warrants not fully vested as of 31 December 2018	0	0	0	0	25,167	42,500	294,484	84,300
Average exercise price (in €)	35.36	4.52	2.64	36.69	33.27	22.46	31.50	21.16
Expected share value volatility	35.60%	35.60%	39.55%	67.73%	60.53%	61.03%	60.61%	58.82%
Risk-free interest rate	3.21%	2.30%	2.06%	1.09%	0.26%	-0.40%	-0.23%	-0.06%
Average fair value (in €)	9.00	2.22	12.44	24.55	21.66	11.28	15.68	10.77
Weighted average remaining contractual life	1.82	4.08	4.34	5.34	6.84	2.94	3.49	4.82

The total net expense recognised in the income statement for the outstanding warrants totals €3.6 million for the year 2018 (€2.6 million for the prior year 2017).

12.4.15. Post-employment benefits

(€'000)	As at 31 December,	
	2018	**2017**
Pension obligations	131	204
Total	**131**	**204**

The Group operates a pension plan which requires contributions to be made by the Group to an insurance company. The pension plan is a defined contribution plan. However, because of the Belgian legislation applicable to 2nd pillar pension plans (so-called "Law Vandenbroucke"), all Belgian defined contribution plans have to be accounted for under IFRS as defined benefit plans because of the minimum guaranteed returns on these plans.

At the end of each year, Celyad is measuring and accounting for the potential impact of defined benefit accounting for these pension plans with a minimum fixed guaranteed return.

The contributions to the plan are determined as a percentage of the yearly salary. There are no employee contributions. The benefit also includes a death in service benefit.

The amounts recognised in the balance sheet are determined as follows:

(€'000)	As at 31 December,	
	2018	**2017**
Present value of funded obligations	1,838	1,705
Fair value of plan assets	(1,706)	(1,500)
Deficit of funded plans	131	204
Total deficit of defined benefit pension plans	131	204
Liability in the balance sheet	**131**	**204**

The change in the defined benefit liability over the year is as follows:

(€'000)	Present value of obligation	Fair value of plan assets	Total
As at 1 January 2017	**1,509**	**1,305**	**204**
Current service cost	201	-	201
Interest expense/(income)	32	26	6
	1,742	1,331	411
Remeasurements			
- Return on plan assets, excluding amounts included in interest expense/(income)	-	5	(5)
- Actuarial (Gain)/loss due to change in actuarial assumptions	-	-	-
- Actuarial (Gain)/Loss due to experience	5	-	5
	5	5	-
Employer contributions:		206	(206)
Benefits Paid	(30)	(30)	(1)
At 31 December 2017	**1,704**	**1,499**	**204**

As at 1 January 2018	**1,704**	**1,499**	**204**
Current service cost	190		190
Interest expense/(income)	36	31	5
	1,929	1,530	399
Remeasurements			
- Return on plan assets, excluding amounts included in interest expense/(income)		9	(9)
- Actuarial (Gain)/loss due to change in actuarial assumptions	(58)		(58)
- Actuarial (Gain)/Loss due to experience	(3)		(3)
	(61)	9.	(70)
Employer contributions:		198	(198)
Benefits Paid	(31)	(31)	-
At 31 December 2018	**1,838**	**1,707**	**131**

The income statement charge included in operating profit for post-employment benefits amount to:

(€'000)	2018	2017
Current service cost	190	201
Interest expense on DBO	36	32
Expected return on plan assets	(30)	(26)
Net periodic pension cost	**195**	**207**

The re-measurements included in other comprehensive loss amount to:

(€'000)	2018	2017
Effect of changes in actuarial assumptions	(58)	-
Effect of experience adjustments	(3)	5
(Gain)/Loss on assets for the year	(9)	(5)
Remeasurement of post-employment benefit obligations	(70)	-

Plan assets relate all to qualifying insurance policies. The significant actuarial assumptions as per 31 December 2018 were as follows:

Demographic assumptions (for both current and comparative years presented in these year-end financial statements):

- Mortality tables: mortality rates-5 year for the men and 5 year for the women
- Withdrawal rate: 15% each year
- Retirement age: 65 years

Economic assumptions:

- Yearly inflation rate: 1,8%
- Yearly salary raise: 1,5% (above inflation)
- Yearly discount rate: 2.2%

If the discount rate would decrease with 0,5% then, the defined benefit obligation would increase with 5,5%. Reversely if the discount rate would increase with 0,5% then the defined benefit obligation would decrease with 3,5%.

The above sensitivity analysis is based on a change in an assumption while holding all other assumptions constant. In practice, this is unlikely to occur, and changes in some of the assumptions may be correlated. When calculating the sensitivity of the defined benefit obligation to significant actuarial assumptions the same method (present value of the defined benefit obligation calculated with the projected unit credit method at the end of the reporting period) has been applied as when calculating the pension liability recognised within the statement of financial position.
Through its defined benefit pension plan, the Group is exposed to several risks, the most significant of which are detailed below:

- Changes in discount rate: a decrease in discount rate will increase plan liabilities;
- Inflation risk: the pension obligations are linked to inflation, and higher inflation will lead to higher liabilities. The majority of the plan's assets are either unaffected by or loosely correlated with inflation, meaning that an increase in inflation will also increase the deficit.

The investment positions are managed by the insurance company within an asset-liability matching framework that has been developed to achieve long-term investments that are in line with the obligations under the pension schemes.

Expected contributions to pension plans for next financial year amount to €0.2 million.

12.4.16. Advances repayable

(€'000)	As at December 31,	
	2018	2017
Total Non-Current portion as at 1st January	1,544	7,330
Total Non-Current portion as at 31 December	2,864	1,544
Total Current portion as at 1st January	226	1,108
Total Current portion as at 31 December	276	226

The Group receives government support in the form of recoverable cash advances from the Walloon Region in order to compensate the research and development costs incurred by the Group. Refer to note 12.4.2.5.

At balance sheet date, the Company has been granted total recoverable cash advances amounting to €26.7 million. Out of this total amount : i) €23.7 million have been received to date ; ii) out of the active contracts, an amount of €1.4 million should be received in 2019 or later depending on the progress of the different programs partially funded by the Region ; and iii) an amount of €1.5 million refer to contracts for which the exploitation has been abandoned (and thus will not be received).

For further details, reference is made to the table below which shows (i) the year for which amounts under those agreements have been received and initially recognised on the balance sheet for the financial liability and deferred grant income components and (ii) a description of the specific characteristics of those recoverable cash advances including repayment schedule and information on other outstanding advances. In 2019, we will be required to make exploitation decisions on our remaining outstanding RCA related to the CAR-T platform.

(in €'000)		Amounts received for the years ended 31 December				Amounts to be received			As at 31 December2018
Id	Project	Contractual amount	Prior years	2017	2018	Cumulated cashed in	2019 and beyond	Status	Amount reimbursed (cumulative)
5160	C-Cure	2,920	2,920	-		2,920	-	Abandoned	0
5731	C-Cure	3,400	3,400	-		3,400	-	Abandoned	0
5914	C-Cure	700	687	-		687	-	Abandoned	180
5915	C-Cathez	910	910	-		910	-	Exploitation	460
5951	Industrialization	1,470	866	-		866	-	Abandoned	245
6003	C-Cure	1,729	1,715	-		1,715	-	Abandoned	0
6230	C-Cure	1,084	1,084	-		1,084	-	Abandoned	0
6363	C-Cure	1,140	1,126	-		1,126	-	Abandoned	1,536
6548	Industrialization	660	541	-		541	-	Abandoned	0
6633	C-Cathez	1,020	1,020	-		1,020	-	Exploitation	204
6646	Proteins	1,200	450	-		450	-	Abandoned	450
7027	C-Cathez	2,500	2,500	-		2,500	-	Exploitation	250
7246	C-Cure	2,467	2,220	247		2,467	-	Abandoned	0
7502	CAR-T Cell	2,000	1,800	200		2,000	-	Exploitation	0
7685	THINK	3,496	-	873	1,187	2,060	1,436	Research	0
Total		**26,696**	**21,239**	**1,320**	**1,187**	**23,746**	**1,436**		**3,325**

Regarding active contracts (in exploitation status):

The contract 5915 has the following specific characteristics:

- funding by the Region covers 70% of the budgeted project costs;

- certain activities have to be performed within the Region;
- in case of an outlicensing agreement or a sale to a third party, Celyad will have to pay 10% of the price received (excl. of VAT) to the Region;
- sales-independent reimbursements, sales-dependent reimbursements, and amounts due in case of an outlicensing agreement or a sale to a third party, are, in the aggregate, capped at 100% of the principal amount paid out by the Region;
- sales-dependent reimbursements payable in any given year can be set-off against sales-independent reimbursements already paid out during that year;
- the amount of sales-independent reimbursement and sales-dependant reimbursement may possibly be adapted in case of an outlicensing agreement, a sale to a third party or industrial use of a prototype or pilot installation, when obtaining the consent of the Walloon Region to proceed thereto.

The other contracts have the following specific characteristics:

- funding by the Region covers from 45 to 70% of the budgeted project costs;
- certain activities have to be performed within the European Union;
- sales-independent reimbursements represent in the aggregate 30% of the principal amount;
- sales-dependent reimbursements range between 50% and 200% (including accrued interest) of the principal amount of the RCA depending on the actual outcome of the project compared to the outcome projected at the time of grant of the RCA (below or above projections);
- interests (at Euribor 1 year (as applicable on the first day of the month in which the decision to grant the relevant RCA was made + 100 basis points) accrue as of the 1st day of the exploitation phase;
- the amount of sales-independent reimbursement and sales-dependant reimbursement may possibly be adapted in case of an outlicensing agreement, a sale to a third party or industrial use of a prototype or pilot installation, when obtaining the consent of the Region to proceed thereto.
- sales-independent reimbursements and sales-dependent reimbursements are, in the aggregate (including the accrued interests), capped at 200% of the principal amount paid out by the Region;
- in case of bankruptcy, the research results obtained by the Company under those contracts are expressed to be assumed by the Region by operation of law.

The table below summarizes, in addition to the specific characteristics described above, certain terms and conditions for the recoverable cash advances:

Contract number	Research phase	Percentage of total project costs	Turnover-dependent reimbursement	Turnover-independent reimbursement	Interest rate accrual	Amounts due in case of licensing (per year) resp. Sale
(€'000)						
5160	01/05/05-30/04/08	70%	0.18%	Consolidated with 6363	N/A	N/A
5731	01/05/08-31/10/09	70%	0.18%	Consolidated with 6363	N/A	N/A
5914	01/09/08-30/06/11	70%	5.00%	€30k in 2012 and €70k each year after	N/A	10% with a minimum of 100/Y
5915	01/08/08-30/04/11	70%	5.00%	€40k in 2012 and €70k each year after	N/A	10% with a minimum of 100/Y
5951	01/09/08-31/12/14	70%	5.00%	€100k in 2014 and €150k each year after	N/A	10% with a minimum of 200/Y
6003	01/01/09-30/09/11	60%	0.18%	Consolidated with 6363	N/A	N/A
6230	01/01/10-31/03/12	60%	0.18%	Consolidated with 6363	N/A	N/A

Contract number	Research phase	Percentage of total project costs	Turnover-dependent reimbursement	Turnover-independent reimbursement	Interest rate accrual	Amounts due in case of licensing (per year) resp. Sale
(€'000)						
6363	01/03/10-30/06/12	60%	0.18%	From €103k to €514k starting in 2013 until 30% of advance is reached	Starting on 01/01/13	N/A
6548	01/01/11-31/03/13	60%	0.01%	From €15k to €29k starting in 2014 until 30% of advance is reached	Starting on 01/10/13	N/A
6633	01/05/11-30/11/12	60%	0.27%	From €10k to €51k starting in 2013 until 30% of advance is reached	Starting on 01/06/13	N/A
6646	01/05/11-30/06/15	60%	0.01%	From €12k to €60k starting in 2015 until 30% of advance is reached	Starting on 01/01/16	N/A
7027	01/11/12-31/10/14	50%	0.33%	From €25k to €125k starting in 2015 until 30% of advance is reached	Starting on 01/01/15	N/A
7246	01/01/14-31/12/16	50%	0,05%	From €30k to €148k starting in 2017 until 30% of advance is reached.	Starting in 2017	N/A
7502	01/12/15-30/11/18	45%	0.19%	From €20k to €50k starting in 2019 until 30% is reached.	Starting 2019	N/A
7685	1/01/2017-31/12/2019	45%	0.33%	From €35k to €70k starting in 2019 until 30% is reached.	Starting 2020	N/A

12.4.17. Trade payables and other current liabilities

(€'000)	As at 31 December,	
	2018	**2017**
Total trade payables	**5,916**	**4,800**
Other current liabilities		
Social security	314	306
Payroll accruals and taxes	1,351	947
Other current liabilities	1,024	1,029
Total other current liabilities	**2,690**	**2,282**

Trade payables are non-interest-bearing liabilities and are normally settled on a 90-day terms. Their increase is mainly attributable to clinical operations acceleration in the fourth quarter of 2018.

The Other current liabilities include the short-term debts to employees and social welfare and tax agencies.

No discounting was performed to the extent that the amounts do not present payments terms longer than one year at the end of each financial year presented.

12.4.18. Financial liabilities

12.4.18.1 Maturity analysis

The table below analyses the Group's non-derivative financial liabilities into relevant maturity groupings based on the remaining period at the balance sheet date to the contractual maturity date. The amounts disclosed in the table are the contractual undiscounted cash flows, except for advances repayable which are presented at amortised cost. Contingent consideration liability has not been disclosed in the table below, because as of balance sheet date, it does not meet the definition of a contractual obligation. Commitments relating to contingent consideration are detailed in the disclosure note 12.4.33.

Financial liabilities reported as at 31 December 2018:

(€'000)	Total	Less than one year	One to five years	More than five years
As at 31 December, 2018				
Bank loan	510	281	229	-
Financial leases	1,136	484	652	-
Advances repayable	3,140	276	1,021	1,843
Trade payables and other current liabilities	5,916	5,916	-	-
Total financial liabilities	**10,702**	**6,957**	**1,902**	**1,843**

Financial liabilities reported as at 31 December 2017:

(€'000)	Total	Less than one year	One to five years	More than five years
As at 31 December, 2017				
Bank loan	536	209	326	-
Financial leases	909	427	482	-
Advances repayable	1,770	226	660	884
Trade payables and other current liabilities	7,083	7,083	-	-
Total financial liabilities	**10,298**	**7,945**	**1,468**	**884**

12.4.18.2 Changes in liabilities arising from financing activities

The change in bank loans balances is detailed as follows:

BANK LOANS FINANCIAL LIABILITY ROLL FORWARD

(€'000)	For the year ended	
	2018	**2017**
Opening balance at 1 January	**536**	**742**
New bank loans	220	-
Installments	(245)	(207)
Closing balance at 31 December	**510**	**536**

The change in finance lease liability balances is detailed as follows:

FINANCE LEASES FINANCIAL LIABILITY ROLL FORWARD

(€'000)	For the year ended	
	2018	**2017**

Opening balance at 1 January	**909**	**735**
New finance leases	730	543
Installments	(503)	(369)
Closing balance at 31 December	**1,136**	**909**

The change in recoverable cash advance liability balances is detailed as follows:

(€'000)	For the year ended	
	2018	**2017**
Opening balance at 1 January	**1,770**	**8,438**
Repayments	(226)	(1,233)
Proceeds - Liability component	598	
Remeasurement	998	(80)
Derecognition of liability (non-recurring gain)		(5,356)
Closing balance at 31 December	**3,140**	**1,770**

The change in the recoverable cash advances liability at balance sheet date reflects both the further proceeds cashed in during the year as well as the remeasurement of the liability at amortized cost, based on our updated business plan and sales forecast for our CAR-T product candidates. See disclosure note 12.4.28. The year-end balance also captures the repayments of contractual turnover independant lump sums to the Walloon Region (relating to C-CATHez agreements). As a consequence of Celyad's notification (in December 2017) to the Walloon Region not to exploit anymore C-Cure IP assets, RCA's repayments have decreased over 2018.

12.4.19. Financial instruments

12.4.19.1 Financial instruments not reported at fair value on balance sheet

The carrying and fair values of financial instruments that are not reported at fair value in the consolidated financial statements were as follows for the current and comparative periods:

(€'000)	As at December 31,	
	2018	**2017**
Financial Assets ('Amortised cost' category) within:		
Non-current Trade receivables	1,743	-
Other non-current assets	215	273
Trade receivables and other current assets	367	233
Short-term investments	9,197	10,653
Cash and cash equivalents	40,542	23,253
Total	**52,065**	**34,412**

For the above-mentioned financial assets, the carrying amount reported at balance sheet date is a reasonable approximation of their fair value.

(€'000)	As at December 31,	
	2018	**2017**
Financial Liabilities ('Financial liabilities at amortized cost' category) within:		
Bank loans	510	536
Finance lease liabilities	1,136	909
RCA's liability	3,140	1,770
Trade payables and other current liabilities	5,916	4,800

Total	**10,702**	**8,015**

For the above-mentioned financial liabilities, the carrying amount reported at balance sheet date is a reasonable approximation of their fair value.

12.4.19.2 Financial instruments reported at fair value on balance sheet

Mesoblast equity shares received in settlement of the upfront payment for the C-CathEZ licensing agreement (see disclosure note 12.4.22) are reported at fair value in the statement of financial position using Level 1 fair value measurement (listed securities based on public market prices).

Contingent consideration and other financial liabilities are reported at fair value in the statement of financial position using Level 3 fair value measurements for which the Group developed unobservable inputs.

(€'000)	Level I	Level II	Level III	Total
Assets				
Investment in equity securities	639	-	-	639
Total Assets	639	-	-	**639**
Liabilities				
Contingent consideration and other financial liabilities	-	-	25,187	25,187
Total Liabilities	-	-	25,187	**25,187**

The change in the balance is detailed as follows:

CONTINGENT CONSIDERATION AND OTHER FINANCIAL LIABILITIES ROLL FORWARD

(€'000)	For the year ended	
	2018	**2017**
Opening balance Contingent consideration at 1 January	**15,549**	**28,179**
Milestone payment		(5,341)
Fair value adjustment	4,733	(4,225)
Currency Translation Adjustment		(3,064)
Closing balance Contingent consideration at 31 December	**20,282**	**15,549**
Opening balance Other financial liabilities at 1 January	**4,034**	**-**
Fair value adjustment	871	4,034
Closing balance Other financial liabilities at 31 December	**4,905**	**4,034**
Total - Contingent consideration and Other financial liabilities at 31 December	**25,187**	**19,583**

The contingent consideration and other financial liabilities refers to the acquisition of our immuno-oncology platform and corresponds to the fair value of the potential future payments due to Celdara Medical, LLC and Dartmouth College. The liability evolution reflects the development of our product candidates using CAR-T technology and their progress towards market approval in both autologous and allogeneic programs, as well as the update of our underlying business plans and revenue forecast.

The liability increase at balance sheet date is due to the fair value adjustment at reporting date, driven by the addition of the milestone payments related to our allogeneic program (triggered by the IND filing of our product candidate CYAD-101 in June 2018 and the first patient infusion in the Alloshrink clinical study in November 2018).

The contingent consideration liability captures the commitments disclosed under note 12.4.33.3. It does not include any amount for contingent consideration payable relating to any sub-licensing agreements entered into or to be entered into by Celyad for the reasons that:

- any contingent consideration payable would be due only when Celyad earns revenue from such sub-licensing agreements, and in an amount representing a fraction of that revenue; and
- the development of the underlying product candidates by the sub-licensees is not under Celyad's control, making a reliable estimate of any future liability impossible.

Contigent consideration liability sensitivity analysis

A sensitivity analysis has been performed on the key assumptions driving the fair value of the contingent consideration liability. The main drivers are i) the discount rate (WACC), ii) the sales long-term growth rate in the terminal value and iii) the probabilities of success (PoS) for our product candidates to get commercialized.

	Discount rate (WACC)				
	9.9%	11.9%	13.9%	15.9%	17.9%
Cont. consideration (€ million)	33.1	28.7	25.2	22.1	19.6
Impact (%)	+31%	+14%	-	-12%	-22%

	Sales long-term growth rate in the terminal value				
	-40%	-32.5%	-25%	-17.5%	-10%
Cont. consideration (€ million)	23.9	24.4	25.2	26.3	28.2
Impact (%)	-5%	-3%	-	+4%	+12%

To determine the contingent consideration liability, we used the same probabilities of success than for impairment testing purposes (see note 12.4.6.2):

PoS	Phase I	Phase I to II	Phase II to III	Phase III to BLA	BLA to Approval	Cumulative PoS
CYAD-01 CYAD-101	100%	63%	26%	45%	84%	**6.4%**

In order to assess the sensitivity to this driver, we apply here an incremental probability factor to the bottom-line cumulative PoS disclosed below:

Probabilities of Success				
-20%	-10%	PoS model	+10%	+20%

Cont. consideration (€ million)	20.2	22.7	25.2	27.7	30.2
Impact (%)	-20%	-10%	-	+10%	+20%

12.4.20. Income taxes

The Group reports income taxes in the income statement as detailed below:

INCOME TAX EXPENSE IN PROFIT OR LOSS

(€'000)	For the year ended 31 December	
	2018	**2017**
Current tax (expense) / income	0	1
Deferred tax (expense) / income	-	-
Total income tax expense in profit or loss	**0**	**1**

The Group has a history of losses, except for its tax entity Biological Manufacturing Services, which is eligible to a minor tax credit.

The following table shows the reconciliation between the effective and theoretical income tax at the nominal Belgian income tax rate of 29.58% for the year 2018 and 33.99% for the year 2017:

EFFECTIVE INCOME TAX RECONCILIATION

(€'000)	For the year ended 31 December	
	2018	**2017**
Loss before tax	(37,427)	(56,396)
Permanent differences		
Tax disallowed expenses	269	221
Share-based payment	3,595	2,569
Nominal tax rate	**29.58%**	**33.99%**
Tax income at nominal taxe rate	9,928	18,220
Deferred Tax assets not recognised	(9.928)	(18,219)
Effective tax expense	**0**	**1**
Effective tax rate	0%	0%

As having not yet reached the commercialization step, the Group accumulates tax losses that are carried forward indefinitely for offset against future taxable profits of the Group. Significant uncertainty exists

however surrounding the Group's ability to realise taxable profits in a foreseeable future. Therefore, the Group has not recognised any deferred tax income in its income statement.

Unrecognized deferred tax assets and liabilities are detailed below by nature of temporary differences for the current year:

(€'000)	For the year ended 31 December 2017		
	Assets	Liabilities	Net
Intangibles assets	-	(3,974)	(3,974)
Tangible assets	-	(215)	(215)
Recoverable cash advances liability	349	-	349
Contingent consideration liability	4,471	-	4,471
Employee Benefits liability	51	-	51
Other temporary difference	5	-	5
Tax-losses carried forward	48,152	-	48,152
Unrecognised Gross Deferred Tax assets/(liabilities)	**53,028**	**(4,189)**	**48,839**
Netting by tax entity	(3,974)	3,974	-
Unrecognised Net Deferred Tax assets/(liabilities)	**49,054**	**(215)**	**48,839**

Unrecognized deferred tax assets and liabilities are detailed below by nature of temporary differences for the prior year:

(€'000)	For the year ended 31 December 2017		
	Assets	Liabilities	Net
Intangibles assets	(14)	(3,960)	(3,974)
Tangible assets	-	(215)	(215)
Recoverable cash advances liability	349	-	349
Contingent consideration liability	4,471	-	4,471
Employee Benefits liability	51	-	51
Other temporary difference	5	-	5
Tax-losses carried forward	48,152	-	48,152
Unrecognised Gross Deferred Tax assets/(liabilities)	**53,014**	**(4,174)**	**48,839**
Netting by tax entity	(3,960)	3,960	-
Unrecognised Net Deferred Tax assets/(liabilities)	**49,054**	**(215)**	**48,839**

The Group's main deductible tax base relates to tax losses carried forward, which have indefinite term under both BE and US tax regimes applicable to our subsidiaries. In addition, the Group can benefit

from additional tax benefits (like notional interest deduction in Belgium) which can be carried-forward until the taxation year 2020.

The remaining temporary differences refer to differences between IFRS accounting policies and local tax reporting policies.
The Group has not recognised any deferred tax asset on its balance sheet, for the same reason as explained above (uncertainty relating to taxable profits in a foreseeable future).

The change in the Group's unrecognised deferred tax asset balance is detailed below:

UNRECOGNISED DEFERRED TAX ASSET BALANCE ROLL FORWARD

(€'000)	For the year ended	
	2018	**2017**
Opening balance at 1 January	**48,839**	**39,370**
Temporary difference creation or reversal	5,734	(15,580)
Change in Tax-losses carried forward	(1,294)	44,011
Foreign exchange rate effect	-	(113)
Change in BE tax rate applicable (34% > 25%)	-	(14,896)
Change in US tax rate applicable (35% > 23%)	-	(3,953)
Closing balance at 31 December	**53,279**	**48,839**

The net increase in the balance relates to : i) an increase linked to the reversal of a temporary difference relating to intangible assets valuation and ii) a decrease linked to some tax losses used during the year.

12.4.21. Other reserves

(€'000)	**Share based payment reserve**	**Convertible loan**	**Currency Translation Difference**	**Total**
Balance as at 1st January 2017	**6,946**	**16,631**	**752**	**24,329**
Vested share-based payments	(239)			(239)
Currency Translation differences subsidiaries			(769)	(769)
Balance as at 31 December 2017	**6,707**	**16,631**	**(17)**	**23,321**
Vested share-based payments	3,539			3,539
Currency Translation differences subsidiaries			(1,194)	(1,194)
Balance as at 31 December 2018	**10,246**	**16,631**	**(1,211)**	**25,666**

12.4.22. Revenue

(€'000)	For the year ended 31 December,

	2018	2017
Out-licensing revenue	2,399	3,505
C-CathEZ sales	-	35
Other revenue	716	-
Total	**3,115**	**3,540**

In May 2018, the Group has entered into an exclusive license agreement with Mesoblast, an Australian biotechnology company, to develop and commercialize Celyad's intellectual property rights relating to C-Cath$_{ez}$, an intra-myocardial injection catheter. We have applied the 5-step model foreseen by IFRS 15 to determine revenue recognition pattern applicable to this contract as of 31 December 2018. Key judgements made in accordance with IFRS 15 were that the license agreement:

- is a distinct component of the Mesoblast agreement;
- refers to a 'right-to-use' type of license, ie. the right to use Celyad's intellectual property as it exists at the point in time the license has been granted (May 2018). Revenue allocated to the transaction price is thus eligible for full revenue recognition for the year 2018 ;
- foresees a transaction price broken down between upfront (€0.8 million settled in shares) and contingent milestone payments (an additional amount of €2.2 million qualifying for recognition at 31 December 2018);
- features a financing component (€0.5 million deferred financial income to be deducted from the above), leading to a net out-licensing revenue reported of €2.4 million);
- further foresees variable consideration of up to $17.5 million related to future regulatory- and commercial-based milestones, which will not be recognized until it becomes highly probable that a significant reversal in the amount of cumulative revenue recognised will not occur.

The related receivable is reported for its discounted value (€1.7 million) under 'Non-current trade receivables', see note 12.4.8. There are no corresponding contract liabilities reported at balance sheet date, as no performance obligation was outstanding.

For the previous year, the Group received a non-refundable upfront payment as a result of the Company entering into a non-exclusive license agreement with Novartis. This upfront payment was fully recognized upon receipt as relating to a right-to-use license (no performance obligation associated with the payment, other than granting the right to use the underlying intellectual property as from contract signing date).

Other revenue refers to a non-clinical supply agreement concluded with ONO Pharmaceutical Co., Ltd (time & material type of contract). The revenue reported reflects the services delivered for the year, consisting in performing cell production and animal experiments requested by ONO. The related receivable open at year-end is reported under 'Trade receivables', see note 12.4.9. This agreement has been completed at year-end, without any performance obligation remaining outstanding.

The Company does not expect to generate significant revenue unless and until it receives regulatory approval for one of our drug product candidates.

12.4.23. Research and Development expenses

(€'000)	For the year ended 31 December,	
	2018	2017
Salaries	7,902	7,007
Share-based payments	1,264	862
Travel and living	466	359
Pre-clinical studies	2,945	1,995
Clinical studies	3,656	3,023
Raw materials & consumables	2,770	1,825
Delivery systems	117	430
Consulting fees	1,663	1,522
External collaborations	110	885
IP filing and maintenance fees	397	513
Scale-up & automation	23	1,892
Rent and utilities	651	371
Depreciation and amortisation	848	1,488
Other costs	765	735
Total Research and Development expenses	**23,577**	**22,908**

R&D expenses show a net increase year-on-year, which reflects the organic growth of the Company's operations, for both pre-clinical and clinical activities. The underlying operational staff headcount increased by 15% compared to prior year.

Scale-up and automation budget has been carried forward to 2019.

The absence of amortisation expenses relating to C-Cure and Corquest assets (as a consequence of their full impairment recorded at year-end 2017) explains the lower level of depreciation & amortization expense compared to prior year.

12.4.24. General and administrative expenses

(€'000)	For the year ended 31 December,	
	2018	2017
Employee expenses	3,312	2,630
Share-based payments	2,331	1,707
Rent	1,097	1,053
Communication & Marketing	676	761
Consulting fees	2,192	2,227
Travel & Living	253	211
Post employment benefits	(3)	-
Depreciation	267	229
Other	263	490
Total General and administration	**10,387**	**9,308**

Increase of G&A expenses by 11% mainly refers to the increase of the Share-based payments vesting cost (non-cash expenses), driven by the full year vesting impact of the warrants distribution occurred prior year (warrant grant of mid-2017).

Employee expenses increase is driven by one-off costs incurred pursuant to changes in our Corporate organization chart.

12.4.25. Depreciation and amortisation

(€'000)	For the year ended 31 December,	
	2018	**2017**
Depreciation of property, plant and equipment	1,048	966
Amortisation of intangible assets	68	748
Total depreciation and amortisation	1,115	**1,714**

The absence of amortisation expenses relating to C-Cure and Corquest assets (as a consequence of their full impairment recorded at year-end 2017) drives the decrease in the amortisation expense compared to prior year.

12.4.26. Employee benefit expenses

(€'000)	For the year ended 31 December,	
	2018	**2017**
Salaries, wages and fees	6,439	5,461
Executive Management team compensation	3,235	2,563
Share-based payments	3,595	2,569
Social security	1,301	1,277
Post employment benefits	217	220
Hospitalisation insurance	118	118
Other benefit expense	2	-
Total Employee expenses	14,906	**12,207**

Salaries, wages and fees expenses show a net increase year-on-year, which reflects the organic growth of the Company's operations, for both pre-clinical and clinical activities. The underlying total staff headcount increased by 10% compared to prior year.

The increase in Share-based payments vesting cost (non-cash expenses) is driven by the full year vesting impact of the warrants distribution occurred prior year (warrant grant of mid-2017).

Headcount	For the year ended 31 December,	
	2018	**2017**
Research & Development	88.1	77.1
General and administrative staff	13.7	15.9
Total Headcount	**101.8**	**93.0**

12.4.27. Other income and expenses

Other expenses mainly refer to the change in fair value of the contingent consideration and other financial liabilities. See 12.4.19.2 for more information.

Other income is mainly related to government grants received. For the government grants received in the form of recoverable cash advances (RCAs) we refer to note 12.4.16 for more information.

(€'000)	For the year ended December 31,	
	2018	2017
Remeasurement of contingent consideration	5,604	-
Clinical Development milestone payment	1,372	-
Remeasurement of RCA's	998	-
Fair value adjustment on securities	182	-
Other	243	41
Total Other Expenses	**8,399**	**41**

(€'000)	For the year ended December 31,	
	2018	2017
Grant income (RCA's)	768	824
Grant income (Other)	-	56
Remeasurement of RCA's	-	396
Remeasurement of contingent consideration	-	193
R&D tax credit	310	1,161
Total Other Income	**1,078**	**2,630**

In 2017, the Company recognized also for the first time a receivable on the amounts to collect from the federal government as R&D tax credit (€1.2 million). See note 12.4.8.

12.4.28. Non-recurring operating income and expenses

Non-recurring operating income and expenses are defined as one-off items, not directly related to the operational activities of the Company. No operations qualify for such a presentation for the year 2018.

(€'000)	For the year ended 31 December	
	2018	2017
Amendment of Celdara Medical and Dartmouth College agreements	-	(24,341)
C-Cure IP asset impairment expense	-	(6,045)
C-Cure RCA reversal income	-	5,356

Corquest IP asset impairment expenses	-	(1,244)
Write-off C-Cure and Corquest assets and derecognition of related liabilities	-	(1,932)
Total Non-Recurring Operating expenses	**-**	(26,273)

In 2017, the Group had recognized non-recurring expenses related to the amendment of the agreements with Celdara Medical LLC and Dartmouth College (totalling €24.3 million, out of which an amount of €10.6 million was settled in shares, and thus a non-cash expense). The Group had also proceeded with the write-off of the C-Cure and Corquest assets and derecognition of related liabilities (for net expense amounts of €0.7 million and €1.2 million respectively).

12.4.29. Operating leases

The Group has entered into various lease contracts for the purpose of renting buildings and equipment. These leases have an average life of three to five years with no renewal option included in the contracts. There are no restrictions placed upon the Group by entering into these leases.

Operating lease expenses amounted to €1.0 million in 2018 and €0.9 million in 2017.

Future minimum rentals payable under non-cancellable operating leases as of 31 December are detailed as follows:

(€'000)	As at 31 December,	
	2018	**2017**
Within one year	708	857
After one year but no more than five years	1,672	2,014
More than five years	533	888
Total Operating leases	**2,912**	**3,759**

The table below underline the preliminary impact of IFRS 16 adoption on Celyad financial statements, which consists in the recognition of an additional financial liability, with a counterpart in tangible leased assets, for an amount of €2.2 million. IFRS 16 adoption details are discussed under note 12.4.2.1.

(€'000)	
Minimum rentals payable under operating leases - 31 December 2018	**2,912**
IFRS 16 scope exemption (low-value and short-term)	(237)
Minimum rentals payable under operating leases in IFRS 16 scope	**2,675**
Discounting effect @ incremental borrowing rate	(443)
IFRS 16 lease obligation (discounted) - 1 January 2019	**2,232**

12.4.30. Finance income and expenses

(€'000)	For the year ended 31 December,	
	2018	2017
Interest finance leases	18	18
Interest on overdrafts and other finance costs	29	36
Interest on RCA's	15	90
Foreign Exchange differences	-	4,309
Finance expenses	**62**	**4,453**
Interest income bank account	308	927
Foreign Exchange differences	387	
Other financial income	109	6
Finance income	**804**	**934**
Net Financial result	**743**	**(3,519)**

In 2017, a significant loss on exchange differences had been incurred due to the depreciation of the USD against EUR. Such a loss did not occur in 2018, explaining the improvement in our net financial result.

12.4.31. Loss per share

The loss per share is calculated by dividing loss for the year by the weighted average number of ordinary shares outstanding during the period. As the Group is incurring net losses, outstanding warrants have an anti-dilutive effect. As such, there is no difference between the basic and the diluted earnings per share. In case the warrants would be included in the calculation of the loss per share, this would decrease the loss per share.

(€'000)	As at 31 December,	
	2018	2017
Loss of the year attributable to Equity Holders	(37,427)	(56,395)
Weighted average number of shares outstanding	11,142,244	9,627,601
Earnings per share (non-fully diluted) in €	**(3.36)**	**(5.86)**
Outstanding warrants	731,229	674,962

12.4.32. Contingent assets and liabilities

As described in note 12.4.2.5, the Group has to reimburse certain government grants received in the form of recoverable cash advances under certain conditions. For more information we refer to note 12.4.16.

In 2019 and beyond, the Group will have to make exploitation decisions on the remaining RCA (agreements numbered 7685).

12.4.33. Commitments

12.4.33.1 Corquest Inc

Based on the terms of the Share Purchase Agreement dated 5 November 2014, former shareholders of Corquest Inc will be entitled to an earn-out payment based on the net revenues generated by the Company, which revenues should be generated from the selling or divesting, in all or in part, of Proprietary Intellectual Property Rights of the Company to a third party.

As from the 5 November 2014 date until the tenth anniversary of the Agreement, former shareholders of Corquest Inc are entitled to:

- an Earn-Out royalty of 2% if Net Revenue are below or equal to 10 million euro
- or an Earn-Out royalty of 4% if Net Revenue are higher than 10 million euro

12.4.33.2 Celdara Medical LLC Milestones (formerly OnCyte LLC)

Based on the terms of the Asset Purchase Agreement dated 21 January 2015, as amended on 3 August 2017, Celdara Medical LLC is entitled to development and regulatory milestones, sales milestones and royalties based on the net sales generated by the Company from products candidate, whose level depend on whether or not the licensed asset from which the product candidate is derived was in clinical or preclinical stage upon in-licensing from Celadara.

On the clinical assets (NKG2D), Celdara Medical will be entitled to the following development and regulatory milestones;

$5 million upon enrolment of the first patient of the second cohort of the Phase I trial[6]
$6 million upon dosing the first patient of a Phase II trial[7]
$9 million upon dosing the first patient of a Phase III trial
$11 million upon filing of the first regulatory approval of CAR-T NKG2D
$14 million upon CAR-T NKG2D approval for commercialization in the US

On the other preclinical assets (TIM, B7H6, NKP30):

$1.5 million upon an IND filing to the FDA[8]
$4 million upon dosing the first patient of a Phase II trial
$6 million upon dosing the first patient of a Phase III trial
$10 million upon filing of the first regulatory request for the product candidate
$15 million upon product candidate approval for commercialization in the US

Sales milestones will also be due to Celdara Medical and are dependent of cumulative net sales of products developed from licensed assets:

$15 million when first time cumulative worldwide net sales equal to or exceed $250 million
$25 million when first time cumulative worldwide net sales equal to or exceed $500 million
$40 million when first time cumulative worldwide net sales equal to or exceed $1 billion

Company will make annual royalty payments to Celdara Medical on net sales of each product sold by the Company, its affiliates and sublicensees at the applicable rate set forth below:

[6] Paid as of 31 December 2016
[7] Paid as of 31 December 2017
[8] Paid as of 31 December 2018, for TIM pre-clinical asset

5% of the net sales if cumulative worldwide annual net sales are less or equal to $250 million
6% of the net sales if cumulative worldwide annual net sales are greater than $250 million and less or equal to $500 million
7% of the net sales if cumulative worldwide annual net sales are greater than $500 million and less or equal to $1 billion
8% of the net sales if cumulative worldwide annual net sales are greater than $1 billion

On all sublicensing revenues received, the Company will pay percentages ranging from 23% to 5% depending on the stage of development of the product sublicensed. On top of the amounts and percentages due to Celdara Medical LLC, the Company will owe to Dartmouth College an additional 2% royalties on its direct net sales.

In accordance with IFRS 3, these contingencies are recognised on balance sheet at year-end, on a risk-adjusted basis. See note 12.4.19.2.

12.4.34. Related-party transactions

12.4.34.1 Remuneration of key management

Key management consists of the members of the Executive Management Team and the entities controlled by any of them.

	As at 31 December,	
	2018	2017
Number of EMT members	**7**	**8**

(€'000)	For the year ended 31 December	
	2018	2017
Short term employee benefits[1]	740	666
Post employee benefits	16	14
Share-based compensation	1,794	1,123
Other employment costs[2]	27	30
Management fees	2,457	1,950
Total benefits	**5,034**	**3,783**

[1] Include salaries, social security, bonuses, lunch vouchers

[2] Such as Company cars

	As at 31 December,	
	2018	2017
Number of warrants granted	30,000	179,000
Number of warrants lapsed	0	-15,225
Cumulative outstanding warrants	259,000	306,500
Exercised warrants	0	168,000
Outstanding payables (in '000€)	803	461

12.4.34.2 Transactions with non-executive directors

	For the year ended 31 December,	
(€'000)	**2018**	**2017**
Share-based compensation	420	485
Management fees	357	387
Total benefits	**776**	**872**

	As at 31 December,	
	2018	**2017**
Number of warrants granted	20,000	60,000
Number of warrants lapsed	-	(2,904)
Number of exercised warrants	-	-
Cumulative outstanding warrants	135,000	115,000
Outstanding payables (in '000€)	127	194
Shares owned	345,453	2,512,004

Decrease in shares owned by Company's Directors is due to the resignation of Tolefi SA as Board member as of 1st August 2018, as described under note 12.4.2.

12.4.34.3 Transactions with shareholders

There were no transactions with Company's shareholders, for both current and prior years.

12.4.35. Events after the balance sheet date

There were no subsequent events that occur between 2018 year-end and the date when the financial statements have been authorised by the Board for issue.

13. STATUTORY FINANCIAL STATEMENTS 2018 – 2017

This section contains selected financial information, consisting of the balance sheet, income statement and certain notes, as derived from the statutory financial statements of Celyad SA as of and for the year ended 31 December 2018 (including comparative information as of and for the year ended 31 December 2017). These financial statements were prepared in accordance with the applicable accounting framework in Belgium and with the legal and regulatory requirements applicable to the financial statements in Belgium and are filed with the National Bank of Belgium. These statutory financial statements were approved by the Shareholders' Meeting on 6 May 2019 and the statutory auditor has issued an unqualified audit opinion with respect to these statutory financial statements. The full set of the statutory financial statements is available on the website of the National Bank of Belgium (www.nbb.be).

13.1. Balance Sheet

(in €)	2018	2017
ASSETS		
FIXED ASSETS	**46,838,308**	**17,725,176**
II. Intangible fixed assets	**35,054,454**	**27,430**
III. Tangible fixed assets	**2,039,280**	**2,087,160**
Land and buildings		
Installations machinery and equipment	136,935	366,185
Furniture and vehicles	24,155	23,501
Leasing and similar rights	1,147,282	913,912
Other fixed assets	730,909	780,246
Fixed assets under construction and advance payments		3,316
IV. Financial fixed assets	**9,744,574**	**15,610,585**
CURRENT ASSETS	**54,641,197**	**66,367,485**
VI. Stocks and contracts in progress		
Goods purchase for resale		
VII. Amounts receivable within one year	**1,384,102**	
Trade debtors	396,652	
Others amounts receivable	987,450	32,799,500
VIII. Amounts receivable more than one year	**4,009,323**	**33,020,327**
Others amounts receivable	4,009,323	220,827
IX. Investment	**9,197,493**	**10,652,595**
X. Cash at bank and in hand	**39,528,751**	**22,191,145**
XI. Deferred charges and accrued income	**521,528**	**503,418**
TOTAL ASSETS	**101,479,506**	**84,092,660**
CAPITAL AND RESERVES	**89,943,674**	**74,521,841**
I. Capital	**41,552,615**	**34,337,135**
Issued capital	41,552,615	34,337,135
Uncalled capital (-)		
II. Share Premium	**220,678,055**	**181,741,355**
V. Accumulated profits (losses)	**(172,286,995)**	**(141,556,649)**
PROVISIONS AND DEFERRED TAXES		
VII.A. Provisions for liabilities and charges		

CREDITORS	**11,535,831**	**9,570,819**
VIII. Amounts payable after more than one year	**2,166,342**	**1,863,358**
Credit institutions; leasing and other similar obligations	770,142	801,158
Other financial loans	1,396,200	1,062,200
Other debts		
IX. Amounts payable within one year	**9,369,032**	**7,704,984**
Current portion of amounts payable after one year	945,705	846,660
Trade debts	5,800,067	4,758,090
Suppliers	5,800,067	4,758,090
Taxes; remunerations and social security costs	2,455,758	2,099,603
Taxes	852,516	846,516
Remunerations and social security costs	1,603,243	1,253,087
Other amounts payable	167,502	557
X. Accrued charges and deferred income	**458**	**2,477**
TOTAL LIABILITIES	**101,479,506**	**84,092,660**

13.2. Income statements

(in €)	2018	2017
Operating income	**22,677,279**	**23,978,005**
Turnover	1,567,308	3,940,057
Capitalization of development costs	18,598,125	16,824,786
Other operating income	2,509,614	3,213,162
Non recurring operating income	2,232	
Operating charges	(56,505,192)	**(98,020,081)**
Direct Material	(3,679,610)	(2,406,004)
Services and other goods	(21,929,720)	(18,948,282)
Remuneration; social security and pensions	(7,600,167)	(6,911,155)
Depreciation of and other amounts written off formations expenses; intangible and tangible fixed assets (-)	(22,250,470)	(17,663,086)
Write-downs on inventories, on orders in progress and on trade receivables (appropriations -; write-backs +)		(22,122)
Provisions for liabilities and charges (appropriations -; use and write-backs +)		
Other operating charges (-)	(1,043,231)	(841,841)
Non recurring operating expenses	(1,995)	(51,227,625)
Operating profit (loss)	**(33,827,914)**	**(74,042,110)**
Financial income	**1,761,957**	**1,170,101**
Income from current assets	307,632	924,709
Income from financial assets	490,442	
Other financial income	963,883	245,392
Financial charges (-)	**(2,673,713)**	**(7,390,633)**
Interest on financial debts	(16,798)	(17,634)
Other financial charges	(2,656,915)	(5,872,999)
Non-recurring financial charges		(1,500,000)
Profit (loss) on ordinary activities before taxes (-)	**(34,739,670)**	**(80,262,642)**

Profit (Loss) for the period before taxes (-)		
Income taxes (-) (+)	**4,009,323**	
Profit (loss) for the period available for appropriation	**(30,730,347)**	**(80,262,642)**

13.3. Notes

Statement of intangibles assets

(in €)	2018	2017
Acquisition value at the end of the preceding period	92,582,712	75,851,006
Movements during the period		
Acquisitions, included produced fixed assets	56,590,006	16,831,606
Sale, transfer and withdraw	1,500	99,900
Acquisition value at the end of the period	149,174,219	92,582,712
Depreciation and amounts written down at end of the preceding period	92,555,282	26,468,594
Movements during the period		
Recorded	21,562,982	66,086,688
Sale, transfer and withdraw	1,500	
Depreciation and amounts written down at the end of the period	114,119,765	92,555,282
Net book value at the end of the period	35,054,454	27,430

Statement of tangible fixed assets

(in €)	**2018**	**2017**
LAND AND BUILDINGS		
Acquisition value at the end of the preceding period	-	-
Movements during the period		
Acquisitions, included produced fixed assets	-	-
Acquisition value at the end of the period	-	-
Depreciation and amounts written down at end of the preceding period	-	-
Movements during the period		
Recorded	-	-
Depreciation and amounts written down at end of the period	-	-
Net book value at the end of the period		
INSTALLATIONS, MACHINERY & EQUIPMENT		
Acquisition value at the end of the preceding period	1,314,115	1,249,303
Movements during the period		
Acquisitions, included produced fixed assets	97,508	269,773
Sale, transfer and withdraw	275,316	204,961
Acquisition value at the end of the period	1,136,307	1,314,115
Depreciation and amounts written down at end of the preceding period	947,930	863,042
Movements during the period		
Recorded	65,920	90,822

Sale, transfer and withdraw	14,478	5,934
Depreciation and amounts written down at end of the period	999,372	947,930
Net book value at the end of the period	136,935	366,185
FURNITURE AND VEHICLES		
Acquisition value at the end of the preceding period	1,120,260	1,195,365
Movements during the period		
Acquisitions, included produced fixed assets	18,581	9,762
Sale, transfer and withdraw	590,279	84,867
Acquisition value at the end of the period	1,729,121	1,120,260
Depreciation and amounts written down at end of the preceding period	1,096,759	1,135,902
Movements during the period		
Recorded	155,398	16,944
Sale, transfer and withdraw	452,810	56,087
Depreciation and amounts written down at end of the period	1,704,966	1,096,759
Net book value at the end of the period	24,155	23,501
LEASING AND OTHER SIMILAR RIGHT		
Acquisition value at the end of the preceding period	1,723,730	1,180,714
Movements during the period		
Acquisitions, included produced fixed assets	729,654	543,016
Sale, transfer and withdraw	894,332	
Acquisition value at the end of the period Sale, transfer and withdraw	1,559,052	1,723,730
Depreciation and amounts written down at end of the preceding	809,818	453,973
Movements during the period Recorded	348,872	355,845
Sale, transfer and withdraw	(746,919)	
Depreciation and amounts written down at end of the period	411,771	809,818
Net book value at the end of the period	1,147,282	913,912
Whereof:		
Land and buildings		
Installation, machinery & equipment	1,017,681	692,447
Furniture and vehicles	129,601	221,465
OTHER TANGIBLE ASSETS		
Acquisition value at the end of the preceding period	1,079,843	1,080,457
Movements during the period		
Acquisitions, included produced fixed assets	67,050	3,976
Sale, transfer and withdraw	432	4,589
Acquisition value at the end of the period	1,146,461	1,079,843
Depreciation and amounts written down at end of the preceding period	299,597	174,063
Movements during the period		
Recorded	117,298	124,503
Movements during the period	1,343	1,032
Depreciation and amounts written down at end of the period	415,552	299,597
Net book value at the end of the period	730,909	780,246

FIXED ASSETS UNDER CONSTRUCTION AND ADVANCE PAYMENTS		
Acquisition value at the end of the preceding period	3316	
Movements during the period		
Acquisitions, included produced fixed assets		5,461
Transfers from one heading to another	(3,316)	(2,145)
Acquisition value at the end of the period	0	3,316
Depreciation and amounts written down at end of the preceding period		
Movements during the period		
Recorded		
Depreciation and amounts written down at end of the period Recorded		
Net book value at the end of the period	0	3,316

Other investments and deposits

(in €)	**2018**	**2017**
Other Investments and deposits		
Acquisition value at the end of the preceding period	267,059	303,987
Movements during the period		
Additions	166,809	
Reimbursments (-)	(227,611)	(36,928)
Net book value at the end of the period	206,256	267,059

Investment and deposits

(in €)	**2018**	**2017**
Less than one year	8,558,952	10,652,595
More than one year		
Net book value at the end of the period	8,558,952	10,652,595

Statement of capital 2018

(in €)	**Amounts**	**Number of shares**
Issued capital	41,552,615	11,942,344
Structure of the capital		
Different categories of shares		
Registered	xxxxxxxxxxxxxx	72,314
Dematerialized	xxxxxxxxxxxxxx	11,870,030
Unpaid capital		
Uncalled capital	xxxxxxxxxxxxxx	
Capital called, but unpaid	xxxxxxxxxxxxxx	

Shareholders having yet to pay up in full		
Authorised unissued capital	22,947,704	

Statement of capital 2017

(in €)	Amounts	Number of shares
Issued capital	34,337,135	9,867,844
Structure of the capital		
Different categories of shares		
Registered	xxxxxxxxxxxxxx	400,599
Dematerialized	xxxxxxxxxxxxxx	9,467,245
Unpaid capital		
Uncalled capital	xxxxxxxxxxxxxx	
Capital called, but unpaid	xxxxxxxxxxxxxx	
Shareholders having yet to pay up in full		
Authorised unissued capital	30,166,964	

Statement of amounts payable

(in €)	2018	2017
Analysis of amounts payable after more than one year		
Current portion of amounts initially payable after more than one year	945,705	846,172
Amounts payable expiring over one year and before 5 years	1,541,342	1,608,158
Amounts payable expiring over five year	625,000	255,200
Analysis by current position of amounts initially payable after more than one year		
Leasing charges and similar	1,135,738	909,315
Other debts (loans)	1,976,309	1,800,215
Other debt		
Tax, wage and social amounts payable		
Taxes		
Non expired taxes payable	852,516	846,516
Remuneration and social security		
Other amounts payable related to remuneration and social security	1,603,243	1,253,087

Operating results

(in €)	2018	2017
Other operating income		
Subsidies and recoverable cash advance received from the Walloon Region	2,281,025	2,634,754
Operating charges		
Employees recorded in the personnel register		

Total number at the closing date	85	75
Average number of employees calculated in full-time equivalents	83.5	71.1
Number of actual worked hours	138,455	115,159
Personnel costs		
Remuneration and direct social benefits	4,965,658	4,458,432
Employer's social security contributions	1,307,535	1,349,665
Employer's premiums for extra statutory insurances		
Other personnel costs (+)/(-)	1,057,693	870,368
Pensions	269,280	232,690
Impairment of trade receivables		
On trade receivables		
Record		84,765
Withdrawal		62,643
Provisions for risks and charges		
Addition		
Use of and withdrawal		
Other operating charges		
Taxes related to operations	1,908	732,874
Other charges	1,041,324	108,967
Hired temporary staff and persons placed at the enterprise's disposal		
Total number at the closing date	1	4
Average number calculated as full-time equivalents	0.2	3.7
Number of actual worked hours	908	1,882
Charges to the enterprise	32,987	72,199

Financial results

(in €)	2018	2017
Interest income	307,632	924,709
Other financial income	963,882	245,392
Interest charges	16,798	17,634
Foreign exchange difference	2,433,844	5,750,337
Other financial charges	223,072	122,662

Income and charge of exceptional size or incidence

(in €)	2018	2017
Non-recurring income		
Non-recurring financial income	2,232	
Non-recurring operating charges	1,995	51,227,625
Non-recurring financial charges		1,500,000

Income tax

(in €)	2018	2017
Status of deferred taxes		
Accumulated tax losses deductible from future taxable profits	180,559,555	163,528,941

The total amount of value added tax and taxes borne by third parties

(in €)	2018	2017
The total amount of value added tax and taxes borne by third parties		
The total amount of value added tax charged		
To the enterprise (deductible)	4,608,725	5,881,258
By the enterprise	2,950,904	4,002,710
Amounts retained on behalf of third parties		
Payroll withholding taxes	1,692,894	1,606,323

Financial relationship with Amount of direct and indirect remunerations and pensions, included in the income statement, as long as this disclosure does not concern exclusively or mainly, the situation of a single identifiable person

(in €)	2018	2017
To non-executive directors	356,750	387,250

Financial relationship with auditors

(in €)	2018	2017
Auditor's fees	127,524	129,440
Auditor's special missions fees	203,950	11,650
Fees for special missions executed by related parties to the Auditor	-	-

13.4. Summary of valuation rules

Valuation rules are determined by the Board of Directors in accordance with the Royal Decree of 30 January 2001, executing Belgian Company Code and related to the annual accounts requirements for companies.

Formation expenses are booked as intangible fixed assets and amortised over 5 years. Intangible fixed assets acquired from a third party or acquired through a contribution in kind are recorded at the acquisition value. Intangible fixed assets not acquired from a third party are valued at their cost of

production in such a way that they do not exceed a prudent estimation of their future economical use or their future return.

Intangible assets developed internally are capitalized when perspectives of future return are probable and clearly identified. Clinical development expenses are capitalized when authorization to start a phase III trial of the related program is obtained. Development expenses of a medical device are capitalized when the device is CE marked.

These intangible fixed assets are – in principle – amortised prorate temporis over 5 years starting the year of the first revenue generation associated with the related asset. Furniture and fixtures are depreciated over 3, 5 or 10 years depending on the economical life of the assets.

An impairment test is performed each year at year end on all tangible and intangible assets. Exceptional depreciation or amortisation expenses may result from such impairment analysis.

Financial fixed assets are booked at acquisition value. A write-off is accounted for when the financial fixed asset is permanently impaired. There is no inventory.

Direct materials purchased are directly expensed taken into account their short lifetime. Amounts receivable are booked as asset at nominal value. Amounts receivable in foreign currencies are converted in EUR at the exchange rate at closing date. Negative exchange differences resulting from the conversion in EUR at the exchange rate at closing date are expensed; positive exchange differences are accounted for as deferred income. Amounts receivable are written-off when their realizable value is estimated to be lower than their carrying value.

Bank deposits are valued at their acquisition value. Cash and cash equivalent are valued at nominal value. When the nominal value includes interests, these latter are accounted for through the balance sheet caption “deferred charges and accrued income”. A write-off is accounted for when their realizable value is estimated to be lower than their carrying value. Amount payables are booked at nominal value. Amount payables in foreign currencies are converted in EUR at the exchange rate at closing date. Negative exchange differences resulting from the conversion in EUR at the exchange rate at closing date are expensed; positive exchange differences are accounted for as deferred income.

Recoverable cash advances contracted with the Region are booked as off balance sheet when Company notifies the Region of its decision to exploit the outcome of the research and development program partially financed by the Region. A debt will be recognized the first year of revenue recognition for an amount equivalent to the funding received from the Region. Classification between long term and short term is determined based on perspectives of revenue generation and reviewed on a yearly basis.

14. MANAGEMENT REPORT

REPORT OF THE BOARD OF DIRECTORS TO THE SHAREHOLDERS FOR THE FINANCIAL YEAR ENDING 31 DECEMBER 2018

Dear Shareholders,

We are glad to present you our 2018 annual report related to Celyad consolidated financial statements as of 31 December 2018 prepared in accordance with International Financing Reporting Standards (IFRS) as endorsed by the European Union. The companies included in the consolidated financial statements are Celyad SA, Biological Manufacturing Services SA, Celyad Inc, Oncyte LLC and CorQuest Medical Inc.

14.1. Highlights of 2018

In 2018, Celyad continued to advance towards our goal of developing differentiated engineered chimeric antigen receptors T-cell (CAR-T) therapies for the treatment of cancer. We made steady clinical progress investigating our lead clinical candidate CYAD-01, an autologous CAR-T candidate based on the activating Natural Killer Group 2D (NKG2D) receptor, for the treatment of relapsed or refractory (r/r) acute myeloid leukemia (AML) and metastatic colorectal cancer (mCRC) and our first-in-class non-gene edited allogeneic candidate CYAD-101 that co-expresses our NKG2D receptor with our proprietary T-cell inhibitory molecule (TIM) for the treatment of mCRC, which entered Phase 1 development in late 2018.

Preliminary data reported from the CYAD-01 Phase 1 THINK (THerapeutic Immunotherapy with CAR-T NKG2D) trial for the treatment of both r/r AML and mCRC shows CYAD-01 is well-tolerated with encouraging clinical activity as a monotherapy without preconditioning chemotherapy. In addition, the data continue to validate the use of the full human NKG2D receptor in a CAR-T therapy targeting stress ligands on both hematological malignancies and solid tumors.

In April, Celyad reported that an article, entitled "NKG2D-based Chimeric Antigen Receptor Therapy Induced Remission in a Relapsed/Refractory Acute Myeloid Leukemia Patient" authored by the trial investigators at the Moffitt Cancer Center and Research Institute and by the Company's scientific team was published in the journal Haematologica. The case report detailed the first ever reported complete morphologic remission with gene engineered T-cells in a r/r AML patient without preconditioning from the Phase 1 THINK trial.

Data from the THINK trial were reported at several major medical conferences in 2018 including in November at the Society for Immunotherapy of Cancer (SITC) 33rd Annual Meeting and in December at the 60th Annual American Society of Hematology (ASH) meeting. At the ASH meeting, interim results from the trial were presented in an oral presentation that highlighted three out of eight (38%) patients with r/r AML treated with CYAD-01 without preconditioning chemotherapy and evaluable per protocol experienced a complete response (CRh/CRi).

Operational highlights

Clinical Developments in Oncology

In late 2018, the THINK trial for hematological malignancies was amended to add a cohort to assess a more frequent dosing schedule of CYAD-01 without preconditioning chemotherapy for the treatment of r/r AML. The cohort (referred to as Cohort 10) will evaluate six injections of CYAD-01 without preconditioning over two months of administration. The first cycle (induction) will include three injections of CYAD-01 separated by one-week intervals, while the second cycle (consolidation) will include three injections of CYAD-01 separated by two-week intervals. All patients enrolled in the Cohort 10 will receive 1 billion cells per injection.

In October, Celyad enrolled the first patient in the DEPLETHINK Phase 1 trial. The open-label, dose-escalation trial will evaluate 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, in patients with r/r AML. In December 2018, Celyad reported initial data from Cohort 1 of the trial, in which the administration of CYAD-01 following CyFlu was well-tolerated, with no dose-limiting toxicity or treatment-related grade 3 or above adverse events observed.

Regarding our solid tumor program for CYAD-01, the Company announced in May that successful injection of the first patients in the SHRINK dose-esclation trial evaluating the safety and activity of CYAD-01 administered concurrently with FOLFOX chemotherapy in patients with mCRC. In November, Celyad reported concurrent treatment of CYAD-01 with FOLFOX chemotherapy in the first cohort of the trial was well tolerated, with no occurrence of serious AEs (SAEs) nor increase of treatment-related AEs rate. While in February 2018, the THINK trial for the treatment of mCRC was amended to include a cohort known as THINK CyFlu to evaluate a single injection of CYAD-01 following treatment with CyFlu. Initial data from the cohort showed that treatment with CYAD-01 following CyFlu was well tolerated with no occurrence of SAEs nor an increase of treatment-related AEs rate. In addition, preliminary translational data suggest an improvement in the cell expansion of CYAD-01 induced by the CyFlu preconditioning.

Lastly, in December 2018, Celyad initiated the open-label, dose esclation alloSHRINK trial evaluating the non-gene edited allogeneic CAR-T therapy, CYAD-101, administered concurrently with FOLFOX chemotherapy in the treatment of patients with unresectable mCRC.

Intellectual property

Celyad's U.S. Patent No. 9,181,527 relating to allogeneic human primary T-cells that are engineered to be TCR-deficient and express a chimeric antigen receptor (CAR) is a seminal patent in the allogeneic CAR-T field. It has been unsuccessfully challenged in the past, but it was no longer contested in 2018. Building on this critical asset, Celyad obtained several new patents in this portfolio, i.e. patents relating to allogeneic primary human T cells that are engineered to be T-Cell Receptor (TCR)-deficient and to express a CAR, and methods of using those. In total, 4 new patents have been granted late 2017 and in 2018, meaning the total portfolio on allogeneic assets now amounts to seven US patents, and several

more applications both in the US and abroad.This consolidates Celyad's strong intellectual property (IP) position in the allogeneic CAR-T field and strengthens the Celyad's IP portfolio covering key elements in the allogeneic TCR-deficient CAR-T cells production value chain.

Corporate and financial highlights

In 2018, Celyad successfully implemented a modified manufacturing process for CYAD-01, which includes the use of a monoclonal antibody (mAb) that inhibits NKG2D expression on the T cell surface during production. The mAb process resulted in a significantly higher yield in cell numbers for the production of CYAD-01 and was utilized in all clinical trials in 2018 including THINK, DEPLETHINK and SHRINK as well as in the alloSHRINK trial for CYAD-101.

In October, the Company announced an exclusive agreement with Horizon Discovery Group plc for the use of its shRNA technology to generate a novel, next-generation, non-gene-edited allogeneic platform for CAR-T therapies. Initial results reported in November from *in vitro* preclinical studies demonstrated the potential versatility of the shRNA technology given comparable knockdown of the TCR/CD3 complex in T cells as compared to T cells gene edited with CRISPR/Cas9.

In May, Celyad successfully completed a global equity offering with gross proceeds of approximately €46.1 million. At year-end 2018, the Company had cash, cash equivalents and short-term investments of €49.7 million which are expected to be sufficient to support the Company's operating capital expenditure into mid-2020.

14.2. Post balance sheet events

There were no subsequent events that occur between 2018 year-end and the date when the financial statements have been authorised by the Board for issue.

14.3. Financial review of the year ending 31 December 2018

14.3.1. Analysis of the consolidated income statement

The table below sets forth the Group's consolidated income statement, ending up with a €37.4 million net loss for the year ended 31 December 2018, and comparative information for the year 2017.

(€'000)	For the year ended 31 December,	
	2018	**2017**
Revenue	**3,115**	**3,540**
Cost of sales	-	(515)
Gross profit	**3,115**	**3,025**
Research and Development expenses	(23,577)	(22,908)
General & Administrative expenses	(10,387)	(9,310)
Other income	1,078	2,630
Other expenses	(8,399)	(41)
Operating Loss before non-recurring items - REBIT	**(38,170)**	**(26,604)**

Amendment of Celdara Medical and Dartmouth College agreements	-	(24,341)
Write-off C-Cure and Corquest assets and derecognition of related liabilities	-	(1,932)
Operating Loss - EBIT	**(38,170)**	**(52,876)**
Financial income	804	933
Financial expenses	(62)	(4,454)
Loss before taxes	**(37,427)**	**(56,396)**
Income taxes	0	1
Loss for the year [1]	**(37,427)**	**(56,395)**
Basic and diluted loss per share (in €)	(3.36)	(5.86)

Total revenue amounts to €3.1 million for the year 2018. Revenue reported refer to:

iii) the exclusive license agreement signed by the Group with Mesoblast Ltd., an Australian biotechnology company, focused on the development and commercialization of Celyad's intellectual property rights related to C-Cath$_{EZ}$, an intra-myocardial injection catheter. This agreement involved a transaction amount split between upfront and contingent milestone payments. A total amount of €2.4 million qualified for top-line revenue recognition at 31 December 2018, out of which, €0.8 million has been settled at year-end.

iv) the non-clinical supply agreement concluded with ONO Pharmaceutical Co., Ltd. with respect to the product candidate development of CYAD-101 for their licensed territories. The agreement with ONO was time and material driven, involved performing cell production and animal experiments requested by ONO, and has been completed at year-end, generating a revenue of €0.7 million in 2018. As ONO decided to terminate the license and collaboration agreement for strategic and business reasons, there was no milestone payment received from ONO during the year 2018 with regards to advancement of CYAD-101 into the clinic. As a result, Celyad has recovered worldwide development and commercialization rights to CYAD-101.

For the previous year, total revenue amounted to €3.5 million and corresponded to the non-refundable upfront payment received from Novartis, within the framework of the non-exclusive license agreement signed in May 2017. This upfront payment has been fully recognized upon receipt as there were no performance obligations nor subsequent deliverables associated to the payment. Cost of sales reported for the prior year 2017 corresponded to the technology inventor (Darthmouth College) sublicense fee on the upfront payment received from Novartis.

The Research and Development expenses include pre-clinical, manufacturing, clinical, quality, intellectual property and regulatory expenses and other research and development expenses, which are aggregated and presented as a single line in our consolidated financial statements.

Bottom-line, the R&D expenses show a year-over-year increase of €0.7 million. The increase reflects the organic growth of the Company's operations, for both pre-clinical and clinical activities.

The key projects driving the research and development expenses in 2018 included:

- the clinical studies conducted on company's most advanced CAR-T product candidates, CYAD-01 and CYAD-101 (THINK, SHRINK, DEPLETHINK, alloSHRINK) ;
- the pre-clinical studies conducted on on company's CAR-T product candidates in both autologous and allogeneic settings (CYAD-02, CYAD-03 and the development of our allogeneic platform, which evaluates multiple non-gene editing technologies)

General and administrative expenses increased by €1.1 million at €10.4 million in 2018 as compared to €9.3 million in 2017. This increase relates primarily to the share-based payments expense associated to the vesting of the warrant plan issued mid-2017 (non-cash expense recorded in accordance with IFRS 2 standard).

The Group's other income is associated with grants received from the Regional government in the form of recoverable cash advances (RCAs), and to R&D tax credit income:

- with respect to grant income, the Group posts a revenue in line with last year at €0.8 million;
- with respect to R&D tax credit, the Company recognized prior year for the first time a receivable on the amounts to collect from the federal government (€1.2 million income posted in 2017), including a one-off catch-up effect. The decrease for the current year income is predicated on a R&D tax credit recorded (€0.3 million), which is restricted to a base increment in 2018.

For the year 2018, the Group's other expenses mainly refer to non-cash expenses relating to remeasurement required by IFRS:

- the amortized cost remeasurement of the recoverable cash advances liability (non-cash expense of €1.0 million);
- the change in fair value of the contingent consideration and other financial liabilities (non-cash expense of €5.6 million).

The increase in these liabilities reflects both the advancement in 2018 to the allogeneic CAR-T NKG2D program (CYAD-101 product candidate) as well as the management's higher estimate for overall future commercial revenue (risk-adjusted).

The loss resulting from recurrent operations (REBIT) amounted to €38.2 million for the year 2018 versus €26.6 million for the year 2017, driven by non-cash expenses increasing by €8.2 million year-on-year (share-based payments and liabilities remeasurement impacts).

For the previous year, the Group recognized non-recurring expenses related to the amendment of the agreements with Celdara Medical LLC and Dartmouth College and the write-off of the C-Cure and Corquest assets and liabilities (respectively for €24.3 million, €0.7 million and €1.2 million). No such non-recurring items are reported in the income statement of 2018.
At year-end 2018, the loss from operations before financial results and taxes (EBIT) amounted to €38.2 million versus €52.9 million in 2017.

Financial result refers mainly to interest income on short-term investments (reported as financial income) and foreign exchange differences. Due to the depreciation of the USD compared to EUR in the

previous year, the Group recognized a loss on foreign exchange differences of €4.3 million for the year 2017. For the year 2018, the gain on foreign exchange differences amounts to €0.4 million, driving the improvement in our financial net result of €4.3 million.
As a result of the foregoing, the net loss for the financial year 2018 amounts to €37.4 million versus a net loss of €56.4 million for the prior year.

14.3.2. Analysis of the consolidated statement of financial position

The table below sets forth the Group's consolidated balance sheet for the year ended 31 December 2018, and comparative information as at 31 December 2017.

(€'000)	As at 31 December,	
	2018	**2017**
NON-CURRENT ASSETS	**42,607**	**41,232**
Intangible assets	36,164	36,508
Property, Plant and Equipment	3,014	3,290
Non-current trade receivables	1,743	-
Other non-current assets	1,687	1,434
CURRENT ASSETS	**51,692**	**36,394**
Trade and Other Receivables	367	233
Other current assets	1,585	2,255
Short-term investments	9,197	10,653
Cash and cash equivalents	40,542	23,253
TOTAL ASSETS	**94,299**	**77,626**
EQUITY	**55,589**	**47,535**
Share Capital	41,553	34,337
Share premium	206,149	170,297
Other reserves	25,667	23,322
Accumulated deficit	(217,778)	(180,421)
NON-CURRENT LIABILITIES	**29,063**	**22,146**
Bank loans	229	326
Finance leases	652	482
Recoverable Cash advances (RCA's)	2,864	1,544
Contingent consideration and other financial liabilities	25,187	19,583
Post employment benefits	131	204
Other non-current liabilities	-	7
CURRENT LIABILITIES	**9,647**	**7,945**
Bank loans	281	209
Finance leases	484	427
Recoverable Cash advances (RCA's)	276	226
Trade payables	5,916	4,800

Other current liabilities	2,690	2,282
TOTAL EQUITY AND LIABILITIES	**94,299**	**77,626**

Intangible assets net book value mainly refers to our IPR&D assets related to our oncological programs acquired in 2015 through the OnCyte business combination. Pursuant to IFRS, the Company does not capitalize research and development expenses until marketing authorization. Accordingly, all clinical, research and development spend related to the development of our CAR-T product candidates and allogeneic platform are accounted for as operating expenses for the year 2018.

Non-current trade receivables (€1.7 million at 31 December 2018) refer to discounted and risk-adjusted milestone receivables, to be cashed in by the Group in accordance with the terms of the exclusive license agreement signed by the Group with Mesoblast Ltd. for C-Cath$_{EZ}$ device development, as above-described.

The Group's *treasury position* [9] amounts to €49.7 million at year-end. Taking into account €43.0 million net proceeds from capital raise occurred in May 2018, the treasury position went up by €15.8 million compared to prior year-end.

The capital and share premium increased by €43.0 million in 2018 as a result of the above-mentioned May 2018 capital raise.

The advances repayable and the contingent consideration liabilities increase as a counter-part of non-cash 'other expenses' recorded in the income statement, as described above under section 1.3.1. The liability increase reflects both the advancement in 2018 to the allogeneic CAR-T NKG2D program (CYAD-101 product candidate) as well as the management's higher estimate for overall future commercial revenue (risk-adjusted).

14.3.3. Analysis of the consolidated net cash burn rate10

The table below summarizes the *net cash burn rate* of the Group for the year 2018.

CASH BURN RATE SUMMARY

(€'000)	For the year ended 31 December,	
	2018	**2017**
Net cash used in operations	(27,249)	(44,441)
Cash expense for amendment of Celdara Medical and Darmouth College agreements	-	13,276
Net cash used in operations, excluding non-recurring items	**(27,249)**	**(31,165)**
Net cash (used in)/from investing activities	(848)	(857)
Net cash (used in)/from financing activities	43,928	605

[9] '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.
[10] '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.

Effects of exchange rate changes	3	1,120
Net cash burned over the year, excluding non-recurring items	**15,834**	**(30,297)**
Non-recurring cash outs	-	(18,383)
Net cash burned over the year	**15,834**	**(48,680)**

The net cash burn rate for the year is a net cash inflow amounting to €15.8 million, against a net cash outflow of €48.7 million for the prior year.

The net variance in net cash used in operations is driven by favourable foreign exchange differences (the Group posts a €0.4 million income in this respect for the year 2018 against a loss of €4.3 million for the year 2017). The underlying R&D cash spend is in line with prior year.

The bottom-line variance is explained:

- from a financing activities perspective, by the net proceeds from May 2018 capital raise (amounting to €43.0 million);
- by the absence of any non-recurring items in 2018. The latter amounted to €18.4 million in the prior year, and referred to clinical development milestones payment and cash component relating to Celdara Medical LLC and Dartmouth College agreements' amendment compensation settled in 2017.

14.4. Personnel

At the end of 2018, the Group employs 96 FTE's, within which 7 managers (senior leadership team members).

14.5. Environment

All entities of the Group continue to hold the permits required by their activities and are in compliance with all applicable environmental rules.

14.6. Going concern

Management has prepared detailed budgets and cash flow forecasts for the years 2019 and 2020. These forecasts reflect the strategy of the Group and include significant expenses and cash outflows in relation to the development of selected research programs and pipeline of products candidates.

Based on its current scope of activities, the Group estimates that its treasury position as of 31 December 2018 is sufficient to cover its cash requirements until mid-2020, therefore beyond the readouts of our clinical trials currently ongoing. After due consideration of the above, the Board of Directors determined that management has an appropriate basis to conclude on the business continuity over the next 12 months from balance sheet date, and hence it is appropriate to prepare the financial statements on a going concern basis.

14.7. Events and circumstances that could have a significant impact on the future

We have not identified significant events and circumstances that could have a significant impact on the future in addition to the potential impact of risks described in section 1..

14.8. Remuneration report

▪ Director's remuneration

The remuneration of the Directors is determined by the shareholders' meeting upon proposal of the Board of Directors on the basis of the recommendations made by the Nomination and Remuneration Committee. The Nomination and Remuneration Committee benchmarks Directors' compensation against peer companies to ensure that it is competitive. Remuneration is linked to the time committed to the Board of Directors and its various committees.

The non-executive Directors receive a fixed remuneration in consideration for their membership of the Board of Directors and their membership of the Committees (see below). Directors are not entitled to any variable compensation as defined under Articles 96 §3 5° and 520bis of the BCC, as no performance criteria apply to the remuneration of non-executive directors.

On the advice of the Nomination and Remuneration Committee, the Board of Directors may propose to the Shareholders Meeting to grant options or warrants in order to attract or retain non-executive directors with the most relevant skills, knowledge and expertise. The grant of stock base incentive schemes is not linked or subject to any performance criteria and, consequently, qualifies as fixed remuneration. It is the Board of Directors' reasonable opinion, that the grant of warrants provides additional possibilities to attract or retain competent non-executive directors and to offer them an attractive additional remuneration without the consequence that this additional remuneration weighs on the Company's cash and financial results. Furthermore, the grant of warrants is a commonly used method in the sector in which the Company operates. Without this possibility, the Company would be subject to a considerable disadvantage compared to competitors who do offer warrants to their non-executive directors. The Board of Directors is of the opinion that the grant of options or warrants has no negative impact on the functioning of the non-executive directors. As of 31 December 2018, non-executive directors owned in total 135,000 Company warrants.

Without prejudice to the powers granted by law to the Shareholders Meeting, the Board of Directors sets and, from time to time, revises the rules and the level of compensation for directors carrying out a special mandate or sitting on one of the committees and the rules for the reimbursement of directors' business-related out-of-pocket expenses. The remuneration of Directors will be disclosed to the Company's shareholders in accordance with applicable laws and regulations.

The Directors' mandate may be terminated "ad nutum" (at any time) without any form of compensation.

On 9 May 2016, the Shareholders Meeting approved a remuneration and compensation scheme for the non-executive directors. The remuneration package is made up of fixed annual fee of €10,000 for non-executive directors, supplemented by a fixed annual fee of €10,000 for the Chairman. The annual fee is supplemented by a €5,000 fee for any non-executive directors covering the participation to the four ordinary Board of Directors' meetings. Any participation to an extraordinary Board of Directors' meetings gives right to a supplemental fee of €5,000. This remuneration package is also supplemented with a fixed annual fee of €15,000 for membership of each committee of the Board of Directors, to be increased by €5,000 in case the relevant director chairs the Nomination and Remuneration Committee or the Audit Committee. Finally, an extraordinary fee of €3,000 is granted to non-executive directors in case of appointment of such directors, on request of the CEO and with prior approval of the Board of Directors, for specific missions requiring the presence of the concerned director. As part of the fixed remuneration for non-executive directors, all directors may receive from time to time Company warrants subject to shareholders' approval. As mentioned above, the grant of warrants to non-executive directors

is not linked or subject to performance criteria. Directors are also entitled to the reimbursement of out-of-pocket expenses actually incurred as a result of participation in meetings of the Board of Directors.

On 7 May 2018, the Shareholders Meeting approved the terms and conditions of a template of warrants plan to comply with in the event of an implementation of such plan in the next 12 months, upon proposal of the nomination and remuneration committee, with a vesting period of 3 years and for which the exercise price will be the lowest between (i) the average of the closing price of the share in the 30 days preceding the offer and (ii) the last closing price of the share on the date preceding the offer (notwithstanding that, regarding the beneficiaries who are not members of the personnel of the Company, the exercise price will have to be higher than the average closing price of the 30 days preceding the date of the issuance). More specifically, the Shareholders Meeting approved pursuant to the art. 556 of the BCC, the clause of anticipated vesting in the event of a change of control or a public offering on the shares of the company.

The Company does not envisage to amend the principles driving its remuneration policy in the near future and in particular in the coming two financial years.

As of 31 December 2018, there are no loans outstanding from the Company to any member of the Board of Directors.
There are no employment or service agreements that provide for notice periods or indemnities between the Company and members of the Board of Directors who are not a member of the Executive Management Team.
The following amounts detailed the 2018 remuneration of the Board of directors:

Name	Fees earned (€)	Total outstanding warrants
Michel Lussier	73,000	20,000
Debasish Roychowdhury	36,750	20,000
Rudy Dekeyser	73,000	20,000
Chris Buyse	60,000	20,000
Hanspeter Spek	16,250	25,000
Hilde Windels	36,750	10,000
Margo Roberts	23,000	10,000
Tolefi SA		
Serge Goblet	38,000	10,000
Total	356,750	135,000

- **Remuneration of the CEO**

In accordance with Article 96, §3 of the Belgian Company Code, this remuneration report includes the amount of the remuneration of, and any other benefits granted to, the Company's CEO, on a broken-down basis.

In the financial year 2018 Celyad paid €596,000 of remuneration in respect of the CEO, Mr Christian Homsy. This includes:

- a fixed remuneration of €426,000;
- a variable component of €170,000.

After the approval of the audited consolidated financial statement by the Board and the shareholders, the variable component paid to the CEO (or to any other directors if any) cannot be recovered by the Company in case of false financial data. This consists of a deviation from article 96 §3 11° which

describes the potential right of recovery of the variable component by the Company in case of false financial data.

The CEO participates in different warrant plans set in place by the Company and approved by its shareholders:

- under Warrant plan of May 2010: 200 warrants at an exercise price of €22.44 per share vested over a period of 3 years;
- under Warrant plan of January 2013: 80,000 warrants at an exercise price of €4.52 per share vested over a period of 1 years. These warrants were exercised in 2014;
- under Warrant plan of May 2013: 112,000 warrants at an exercise price of €2.64 per share vested over a period of 3 years;
- Under Warrant plan of November 2015: 40,000 warrants at an exercise price of €34.65 per share vested over a period of 3 years;
- Under Warrant plan of June 2017: 40,000 warrants at an exercise price of €32.26 per share vested over a period of 3 years.

In January 2017, the CEO exercised 112,000 warrants issued in May 2013. As of 31 December 2018, the CEO owned 80,000 warrants (plans of November 2015 and June 2017).

Mr. Filippo Petti was appointed as new CEO of the Company with effect on 1st April 2019. An employment agreement was signed between Celyad and Mr. Petti for his position of CEO. In consideration for this position, Celyad will pay to Mr. Petti a base salary at the annual rate of USD 420,000. Furthermore, Mr. Petti will be eligible for a target annual bonus equal to 45% of the base salary and will also be eligible to participate in Celyad's warrant plans. The Company and Mr. Petti will both have the right to terminate the employment contract at any time and without cause with 30 days prior notice and with the payment of a termination indemnity (i) equal to six months of the base salary if the termination occurs prior to 4 January 2021 and (ii) equal to nine months of the base salary if the termination occurs on or after 4 January 2021. The parties will also have the right to terminate the employment for cause without notice and without compensation.

- **Remuneration of the Executive Management Team**

In addition to the CEO, the composition of the Executive Management Team as of 31 December 2018 is:

- Filippo Petti, CFO;
- ImXense SPRL, represented by Frédéric Lehmann, Vice President Clinical Development & Medical Affairs;
- NandaDevi SPRL, represented by Philippe Dechamps, Chief Legal Officer;
- David Gilham, Vice President Research & Development;
- KNCL SPRL, represented by Jean-Pierre Latere, Chief Operating Officer;
- MC Consult SPRL, represented by Philippe Nobels, Global Head of Human Resources.

PaJe SPRL, represented by Patrick Jeanmart, CFO, was member of the Executive Management Team until 31 August 2018 and was replaced by Filippo Petti in that position as of 1 September 2018.

Georges Rawadi, Vice President Business Development & IP, was member of the Executive Management Team and left the Company on 23 March 2018.

Carri Duncan, VP Corporate Development and Communication, has joined the Company on 1st October 2018 as member of the Executive Management Team and left on 12 December 2018.

The remuneration of the members of the Executive Management Team is determined by the Board of Directors based on recommendations made by the Nomination and Remuneration Committee, further to a recommendation made by the CEO to the Nomination and Remuneration Committee (except where his own remuneration is concerned).

The remuneration of the members of the Executive Management Team is designed to hire, retain and motivate high quality executive managers. The remuneration of the members of the Executive Management Team currently consists of the following elements:

- Each member of the Executive Management Team is entitled to a basic fixed compensation designed to fit responsibilities, relevant experience and competences, in line with market rates for equivalent positions;
- the Company pays each member of the Executive Management Team a variable compensation, dependent on specified individual, team and/or Company objectives which, in accordance with Article 520bis of the BCC, are pre-determined in an explicit decision by the Board of Directors. Such variable compensation is based on the Company's performance and the individual performance of the Manager. The performance criteria are set and approved by the Board of Directors at the beginning of each calendar year;
- Each member of the Executive Management Team currently participates in, and/or in the future may be offered the possibility to participate in, a stock based incentive scheme, in accordance with the recommendations set by the Nomination and Remuneration Committee, after the recommendation by the CEO to such committee (except in respect of his own remuneration) and after (in respect of future stock based incentive schemes) prior shareholders' approval of the scheme itself by way of a resolution at the annual shareholders' meeting. Such stock-based incentive schemes are implemented on a case by case basis in order to motivate and retain the beneficiaries;
- Each member of the Executive Management Team is entitled to a number of fringe benefits (to the exception, however, of those managers engaged on the basis of service agreements), which may include participating in a defined contribution pension or retirement scheme, disability insurance and life insurance, a company car, and/or a lump-sum expense allowance according to general Company policy.

In accordance with Schedule C, Section F, subsection 7 of the Charter, any contractual arrangement entered into on or after 1 July 2009 regarding the remuneration of the CEO, any other member of the Executive Management Team, should specify that the amount of severance pay awarded in the event of early termination does not exceed 12 months' base and variable remuneration. Any such agreement (entered into on or after 1 July 2009) should also specify that the severance package does not take into account the variable remuneration and be limited to 12 months' base remuneration in the event that the departing CEO or any other member of the Executive Management Team did not meet the performance criteria referred to in the agreement. In particular:

- PaJe SPRL was engaged on the basis of a services agreement with effective date on January 1, 2008 and with indefinite term. This services agreement was terminated with effect on August 31, 2018. PaJe SPRL continued to provide advisory services to the Company to assist the new CFO through a transition period which ended on December 31, 2018. A severance payment of €198,720 equivalent to 9 months of services and a bonus of €59,616 was paid to PaJe SPRL by the Company in compensation of the termination of the services agreement.

- The CFO is engaged on the basis of an employment agreement with effective date on September 3, 2018 and with indefinite term.
- ImXense SPRL is engaged on the basis of a services agreement with effective date on August 4, 2015 and with indefinite term. The Company can terminate the services agreement without cause with a notice period of six months, or with cause and without indemnity. The services agreement will terminate if ImXense SPRL resigns as Vice President Clinical Development & Medical Affairs of the Company, with a notice period of three months.
- KNCL SPRL is engaged on the basis of a services agreement with effective date on December 7, 2015 and with indefinite term. The Company can terminate the services agreement without cause with a notice period of six months, or with cause and without indemnity. The services agreement will terminate if KNCL SPRL resigns as Chief Operating Officer of the Company, with a notice period of three months.
- NandaDevi SPRL is engaged on the basis of a services agreement with effective date on September 1, 2016 and with indefinite term. The Company can terminate the services agreement without cause with a notice period of five months (six months after September 1, 2019) and the payment of an ad-target bonus pro-rated to the termination date of the current year, or with cause and without indemnity. The services agreement will terminate if Nandadevi SPRL resigns as Chief Legal Officer of the Company, with a notice period of three months.
- MC Consult SPRL is engaged on the basis of a services agreement with effective date on January 3, 2017 and with indefinite term. The Company can terminate the services agreement without cause with a notice period of five months (six months after January 3, 2020), or with cause and without indemnity. The services agreement will terminate if MC Consult SPRL resigns as Global Head of Human Ressources of the Company, with a notice period of two months.
- The Vice President Research & Development is engaged on the basis of an employment agreement with effective date on September 12, 2016 and with indefinite term. The employment contract can be terminated by the Company without notice and without indemnity in case of gross misconduct.

The total fees paid or due to the members of the Executive Management Team (excluding the CEO) was €2.6 million in 2018 (full company costs but excluding VAT and stock-based compensation) as further detailed in sections of the notes to the financial statements.

This includes:

- a fixed remuneration of €1,729,000;
- a variable component of €914,000.

Out of the fixed compensation, the amounts paid by the Group on behalf of the members of the Executive Management Team for a group insurance and other advantages in kind amounted to €44,000.

Over the course of 2018, the Executive Management Team (excluding the CEO) accepted 30,000 warrants offered from the October 2018 plan. As of December 31, 2018, the Executive Management Team holds 179,000 warrants. The exercise prices vary from €17.60 to €36,11. All plans have a vesting scheme of 3 years.

The following table detailed the warrants owned by the Executive Management Team (excluding the CEO) as of December 31, 2018 and the movements occurred in 2018:

Name	Granted	Forfeited	Exercised	Total outstanding
Filippo Petti	20,000	-	-	20,000
ImXense SRPL	10,000	-	-	50,000
NandaDevi SPRL	0	-	-	40,000
David Gilham	0	-	-	16,000
KNCL SPRL	0	-	-	23,000
MC Consult SPRL	0	-	-	30,000
Total	30,000	-		179,000

- **Claw back provisions**

There are no provisions allowing the Company to reclaim any variable remuneration paid to the CEO or the other members of the Executive Management Team.

- **Statutory Auditor**

VCBA BDO Bedrijfsrevisoren – Réviseurs, organised and existing under the laws of Belgium, with registered office at The Corporate Village, Da Vincilaan 9, Box E.6, 1930 Zaventem, , represented by Bert Kegels, has been appointed as its statutory auditor on May 5, 2017 for a term of three years. Bert Kegels is a member of the Belgian Institute of Certified Auditors ("Institut des Réviseurs d'Entreprises").

The annual remuneration of the auditor for the performance of its three year mandate for the audit of its financial statements (including the statutory financial statements) amounts to €128k for the year 2018 (excluding VAT).

15. DEFINITION AND GLOSSARY

Glossary

ADS	American Depositary Shares
Allogeneic cells	Cells of a type that is from the same specicies but genetically distinct – from a different donor as the recipient.
AML	Acute Myeloid Leukemia
Acute Myocardial Infarction (AMI)	Commonly known as a heart attack, is the interruption of blood supply to part of the heart, causing some heart cells to die. This is most commonly due to occlusion (blockage) of a coronary artery following the rupture of an atherosclerotic plaque, which is an unstable collection of lipids (like cholesterol) and white blood cells (especially macrophages) in the wall of an artery. The resulting ischemia (restriction in blood supply) and oxygen shortage, if left untreated for a sufficient period of time, can cause damage or death (infarction) of heart muscle tissue (myocardium).
Articles of Association	The articles of association of the Company
Autologous cells	Cells that are from the same donor as the recipient.
BCC	Belgian Companies Code
BCCA	New Belgian Code of Companies and Associations adopted by the Belgian Parliament on 28 February 2019
BLA	*Biologics Licence Application*. A BLA is a request for permission to introduce, or deliver for introduction, a biologic product into interstate commerce (21 CFR 601.2). The BLA is regulated under 21 CFR 600 – 680.
Board of Directors	The board of directors of the Company
CAR-T cell product	Chimeric antigen receptors are engineered receptors that combine a new specificity with an immune T-cell to target cancer cells.
CAR-T NKG2D	Chimeric antigen receptors using NKG2D as target
Cardiac Progenitor Cells (CPCs)	A cardioprogenitor cell is a cellular phenotype with the capacity to yield myocardial tissue and blood vessels upon differentiation.
Cardiac Resynchronisation Therapy (CRT)	A CRT is a type of pacemaker (a medical device which uses electrical impulses, delivered by electrodes contacting the heart muscles, to regulate the beating of the heart) that can pace both the septal and lateral walls of the left ventricle.
Cardiac Stem Cells (CSCs)	Cells that can give rise to all of the major cell types in the human heart.

Cardiogenic cocktail	A mixture of growth factors, cytokines and small molecules that have the capacity to drive Cardiopoiesis.
Cardiogenesis	Development of the heart in the embryo.
Cardiopoiesis	Process to drives stem cells towards the cardiac lineage
Cardiopoietic Cells (CPCs)	Cells that are precursors of fully differentiated cardiac muscle cells. In the lab, CPCs can be generated from stem cells by culture in the presence of a specific cocktail of cardiotrophic factors discovered at the Mayo Clinic.
Cardiovascular Disease (CVD)	A group of disorders of the heart and blood vessels which includes: - Coronary heart disease - Cerebrovascular disease - Peripheral arterial disease - Rheumatic heart disease - Congenital heart disease - Deep vein thrombosis and pulmonary embolism
Charter	The corporate governance charter of the Company
CMO	Contract Manufacturing Organization
C-Cure	Celyad' proprietary stem cell therapy for the treatment of heart failure
CM-CS1 Trial	A First-in-Human Phase I Trial of NKG2D Chimeric Antigen Receptor-T Cells in AML/MDS and Multiple Myeloma
Code on Corporate Governance	The Belgian Code on corporate
Company	Celyad SA
Consistency lots	Lots produced to document evidence that the process, operated within established parameters, can perform effectively and reproducibly to manufacture a product meeting its predetermined specifications and quality attributes.
Coronary Artery Disease (CAD) - also known as Coronary Heart Disease (CHD)	A condition in which atherosclerotic plaque builds up inside the coronary arteries. Plaque is made up of fat, cholesterol, calcium and other substances found in the blood. This can cause angina (chest pain or discomfort) or a heart attack (when the blood flow to an area of the heart muscle is completely blocked, preventing oxygen-rich blood from reaching that area and causing it to die).
CR	Complete response. See RECIST criteria
CRC	Colorectal Cancer
CRO	Contract Research Organization

CRS	Cytokine Release Syndrome
Cryopreservation	Cryopreservation is a process where cells or whole tissues are preserved by cooling to low sub-zero temperatures. At these low temperatures, any biological activity, including the biochemical reactions that would lead to cell death, is effectively stopped.
EMA	European Medicines Agency
Embryonic Stem Cells (ESCs)	Stem cells derived from the undifferentiated inner mass cells of a human embryo. Embryonic stem cells are pluripotent, meaning they are able to grow (i.e. differentiate) into all derivatives of the three primary germ layers: ectoderm, endoderm and mesoderm.
Ex vivo (experiments)	Experimentation done in or on tissue outside the organism with minimal alteration of natural conditions;
FDA	US Food and Drug Administration
Formulation	Formulation is the vehicle and the form in which an active compound is delivered in the body.
FSMA	The Belgian Financial Services and Markets Authority
Good Clinical Practices (GCP)	Good Clinical Practice (GCP) is an international ethical and scientific quality standard for designing, conducting, recording and reporting trials that involve the participation of human subjects. Compliance with this standard provides public assurance that the rights, safety and well-being of trial subjects are protected, consistent with the principles that have their origin in the Declaration of Helsinki, and that the clinical trial data are credible.
Good Manufacturing Practices (GMP)	GMP is part of a quality system covering the manufacture and testing of active pharmaceutical products. GMPs are guidelines that outline the aspects of production and testing that can impact the quality of a product.
Group	Celyad and its subsidiaries as referred to under section 12.4.12
Heart Failure (HF)	Heart Failure is a condition in which the heart has been damaged and cannot pump enough blood to meet the body's metabolic needs. HF can be of ischemic or non-ischemic origin: - Ischemic Origin (Coronary Artery Disease) - Non-ischemic Origin - Hypertension: high blood pressure; - Other conditions such as heart valve disease, congenital heart defect, endocarditis (infection of the heart valves) and/or myocarditis (infection of the heart muscle).

	The failing heart keeps working but not as efficiently as it should. HF patients cannot exercise because they become short of breath and tired. In the most severe forms, even slight exercises like walking a short distance are impossible.
Human MSCs	MSCs (see definition below) of human origin.
IFRS	International Financial Reporting Standards
Immunodeficient rodents	A lineage of rodents (like rats or mice) that are genetically modified to omit some components of the immune system (the system that defends against disease and foreign agents).
Implantable Cardioverter Defibrillator (ICD)	Small battery-powered electrical impulse generator which is implanted in patients who are at risk of sudden cardiac death due to ventricular fibrillation and ventricular tachycardia.
IND	Investigational New Drug
IND filing	First step in the application process to get a new drug approved
Induced Pluripotent Stems Cells (IPS)	IPSs are pluripotent cells derived from differentiated cells by forcing the expression of key pluripotency genes.
Ischemic HF	Ischemic Heart Failure
IRB	Institutional Review Board. An IRB/IEC reviews the appropriateness of the clinical trial protocol as well as the risks and benefits to study participants. It ensures that clinical trial participants are exposed to minimal risks in relation to any benefits that might result from the research.
Left Ventricular Assist Device (LVAD)	A LVAD is a mechanical circulatory device that is used to partially or completely replace the function of a failing heart.
Left Ventricular Ejection Fraction (LVEF)	The fraction of blood pumped out of the left ventricle with each heart beat.
In vivo (experiments)	Experiments done in animal living systems.
In vitro (experiment)	Experiments done outside animal living systems.
LY process	Manufacturing process in which the compound LY294002 is added to the cells
Mesenchymal Stem Cells (MSCs)	Cells located in many tissues serving to repair the organs and tissues. These cells are found in organs like bone marrow, adipose tissue, liver, and pancreas.
mCRC	Metastatic colorectal cancer
Multipotent Stem Cells	Cells that have the potential to give rise to cells from multiple, but a limited number of lineages; i.e. multipotent stem cells can differentiate

	into a number of cells, but only those of a closely related family of cells.
Neovasculogenesis	Development of new blood vessels.
New York Heart Association (NYHA) Class	The NYHA Functional Classification provides a simple way of classifying the extent of heart failure. Divides patients in one of four categories based on the extend of the disease during physical activity; the limitations/symptoms are related to normal breathing and varying degrees in shortness of breath and/or angina pain.
Paracrine	Paracrine signalling is a form of cell signalling in which the target cell is near ("para" = near) the signal-releasing cell.
PD	rogressive disease. See RECIST criteria
PR	Partial response. See RECIST criteria
Proteomics analysis	Proteomics is the large-scale study of proteins, particularly their structures and functions
RECIST	Response Evaluation Criteria In Solid Tumors. A set of published rules that define when tumors in cancer patients improve (“respond”), stay the same (“stabilize”), or worsen (“progress”) during treatment. The main categories are Complete response (CR): Disappearance of all target lesions; Partial response (PR): At least a 30% decrease of target lesions; Stable disease (SD): Neither sufficient shrinkage to qualify for partial response nor sufficient increase to qualify for progressive disease; Progressive disease (PD): At least a 20% increase in the sum of target lesions.
RNA	Ribonucleic acid, a molecule essential in various biological roles in coding, decoding, regulation and expression of genes
RVOT	Right ventricular outflow tract
SD	Stable disease. See RECIST criteria
Secretome	The set of proteins secreted by a cell, a tissue or an organism.
Shares	The shares of the Company
Shareholders	The shareholders of the Company
Shareholders’ Meeting	The general shareholders’ meeting of the Company
shRNA	Short hairpin RNA, artificial RNA molecule that can be used to silence target gene expression
Stem cells	Stem cells are primal cells. Stem cells retain the ability to renew themselves by division and can differentiate into a diverse range of specialised cell types. Stem cells can be found in adult tissues (adult

	stem cells), embryos (embryonic stem cells or ESCs) or umbilical cord blood.
Supra-Ventricular Tachycardia	A supra-ventricular tachycardia is a tachycardia, or fast heart rhythm, that originates above the ventricles of the heart (mostly in the atriums).
Systolic dysfunction	Impairment of the contractile function of the heart.
Takeover Law	The Belgian law of 1 April 2007 relating to public tender offers (Loi relative aux offres publiques d'acquisition)
Takeover Royal Decree	The Belgian Royal Decree of 27 April 2007 on public takeover bids (Arrêté royal sur les offres publiques d'acquisition)
TCR	T cell receptor
THINK trial	Therapeutic Immunotherapy with CAR-T NKG2D clinical trial
TIM	Cell receptor inhibitory molecule
Transparency Law	the Belgian Law of 2 May 2007 on the disclosure of significant shareholdings in issuers whose securities are admitted to trading on a regulated market and containing various provisions (Loi relative à la publicité des participations importantes dans des émetteurs dont les actions sont admises à la negotiation sur un marché règlementé et portant dispositions diverses)
Ventricular Tachycardia (VT)	A ventricular tachycardia is a tachycardia, or fast heart rhythm, that originates in one of the ventricles of the heart.
Ventricular fibrillation (VF)	Ventricular fibrillation is a condition in which there is uncoordinated contraction of the cardiac muscle of the ventricles in the heart.

Filippo Petti
CEO / CFO ad interim

12/6/2019