# Developing breakthrough therapies to patients with life-threatening diseases

VFB Happening Christian Homsy, CEO Celyad

24 March 2018



#### Disclaimer

In addition to historical facts or statements of current condition, this presentation contains forward-looking statements, including statements about the potential safety and feasibility of CYAD-01 cell therapy, including current and planned preclinical and clinical trials for Celyad's product candidates; the clinical and commercial potential of these product candidates and the adequacy of Celyad's financial resources; Celyad's intellectual property portfolio, including plans related thereto; Celyad's expectations regarding its strategic collaborations and license agreements with third parties, including Novartis, Celdara Medical, and Dartmouth College, and the potential impact of such collaborations on Celyad's future financial condition; and Celyad's expected cash burn, which reflect Celyad's current expectations and projections about future events, and involve certain known and unknown risks, uncertainties and assumptions that could cause actual results or events to differ materially from those expressed or implied by the forward-looking statements. These forwardlooking statements are further qualified by important factors and risks, which could cause actual results to differ materially from those in the forward-looking statements, including risks associated with conducting clinical trials; the risk that safety, bioactivity, feasibility and/or efficacy demonstrated in earlier clinical trials or preclinical studies may not be replicated in subsequent trials or studies; risks associated with the timely submission and approval of anticipated regulatory filings; the successful initiation and completion of clinical trials, including its clinical trials for CYAD-01; risks associated with the satisfaction of regulatory and other requirements; risks associated with the actions of regulatory bodies and other governmental authorities; risks associated with obtaining, maintaining and protecting intellectual property, Celyad's ability to enforce its patents against infringers and defend its patent portfolio against challenges from third parties; risks associated with competition from others developing products for similar uses; risks associated with Celyad's ability to manage operating expenses; and risks associated with Celyad's ability to obtain additional funding to support its business activities and establish and maintain strategic business alliances and business initiatives. A further list and description of these risks, uncertainties and other risks can be found in Celyad's U.S. Securities and Exchange Commission (SEC) filings and reports, including in its Annual Report on Form 20-F filed with the SEC on April 4, 2017 and subsequent filings and reports by Celyad. Given these uncertainties, the reader is advised not to place any undue reliance on such forward-looking statements. These forward-looking statements speak only as of the date of publication of this document. Celyad expressly disclaims any obligation to update any such forward-looking statements in this document to reflect any change in its expectations with regard thereto or any change in events, conditions or circumstances on which any such statement is based, unless required by law or regulation.





## Agenda

- Who are we?
- Successes of CAR-T
- What is special about Celyad's CAR-T?
  - > Technology and reasons to believe
- What is next for Celyad?



#### Who are we?

- Biopharmaceutical company specialized in cell therapy
- Established in 2007
- Based in Mont-Saint-Guibert (Belgium) with team in US
- Euronext Brussels, Paris et Nasdaq (CYAD)
- 100+ employees
- Strategic partners







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#### The future

## Juno Therapeutics acquired dramatic deal for rising

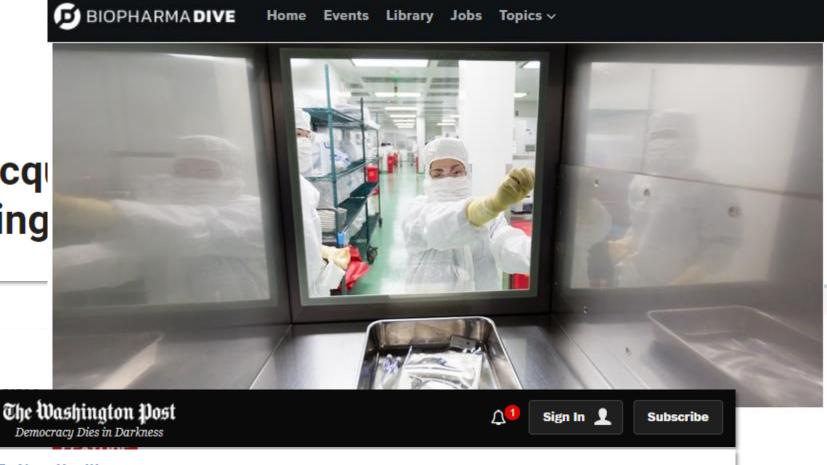
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Gilead-Kite: A New Trans





uncer

To Your Health

FDA clears first gene-altering therapy — 'a living drug' — for childhood leukemia

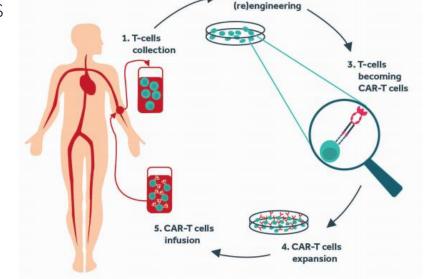
## CAR-T cell therapy helps immune system to attack & destroy cancer cells

• Tlymphocytes Specific white blood cells responsible for killing infected cells

 CAR-T cells Genetically modified T lymphocytes in order to better recognize and destroy cancer cells

How - T-lymphocytes collected from the patient

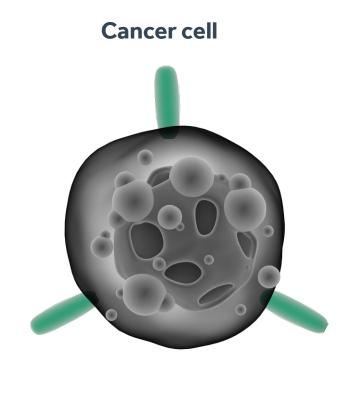
- Genetically modified into CAR-T cells
- Re-injected into the patient





## CAR-T cell therapy helps immune system to attack & destroy cancer cells

**CAR-T cell** 



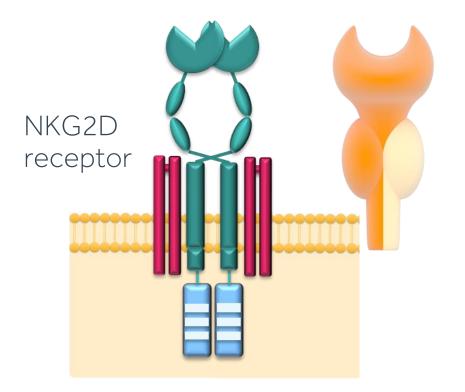




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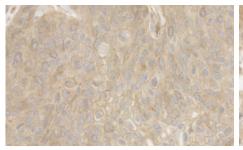
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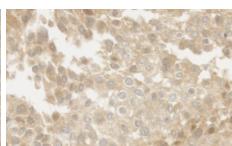
## NKG2D targets stressed cells

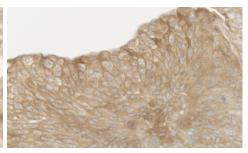


80%

of all cancers are made of stressed cells



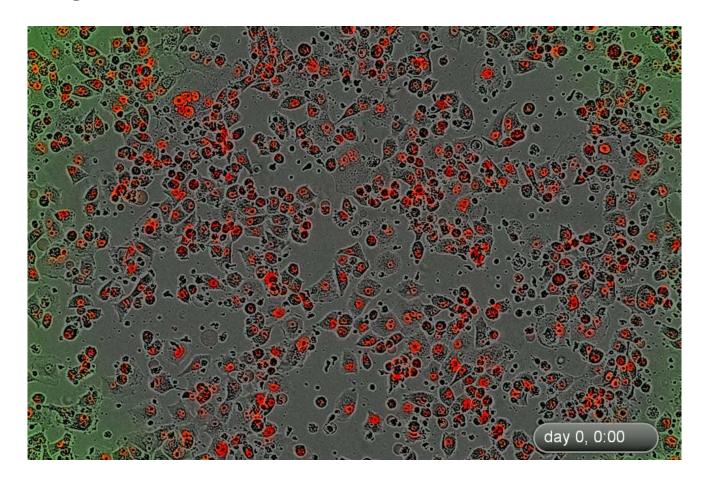






## Our CAR-T technology: promising pre-clinical results

Human NKG2D cells targets cancer cells





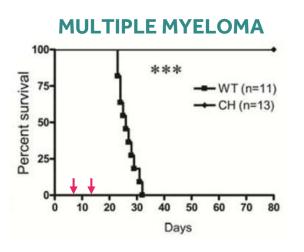
## Our CAR-T technology: promising pre-clinical results

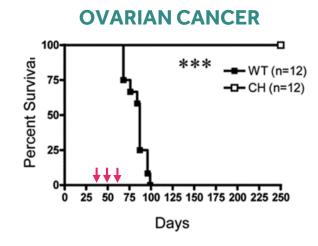
Pancreatic

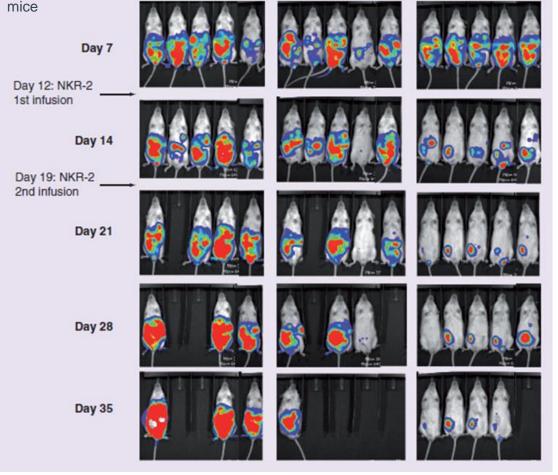
cancer infused in

Pre-clinical trials demonstrated:

- 1) Tumor regression with CYAD-01
- 2) Increase survival of the mice







MOCK-tCD19

**HBSS** 



Demoulin et al. Future Oncology 2017

CYAD-01

### THINK: Encouraging results for Acute Myeloid Leukemia

- World's first complete response by CAR-T therapy without pre-conditioning
- Clinical activity in 3/3 patients treated at the intended dose
- Blast reduction in Bone Marrow in patients up to and including at least the third injection
- Hematological parameters improving in patients
- No significant adverse events to date



Wereldprimeur Celyad geneest leukemiepatiënt zonder chemo







#### THINK: Encouraging results for Colorectal Cancer

- 2/4 metastatic colorectal cancer patients treated at per-protocol dose reported as "stable disease" up to 3-months follow-up<sup>(1, 2)</sup>
- No significant adverse events to date

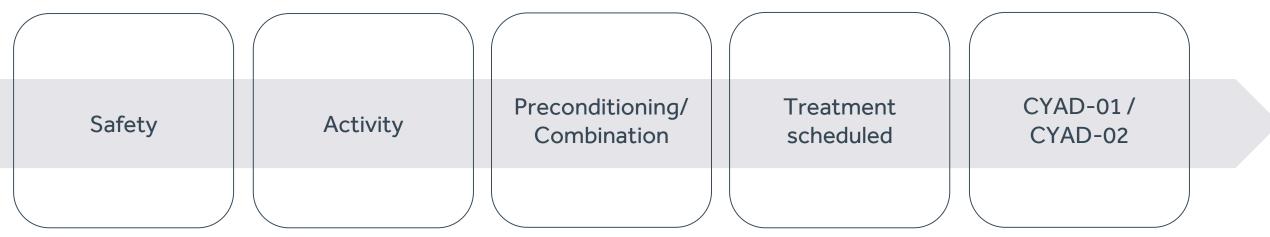
- <sup>1</sup> Median progression free survival in these patients under standard of care is between 1.9 and 3.2 months (e.g. regorafinib or trifluridine/tipiracil).
- <sup>2</sup> Fifth CRC patient treated at a dose lower then per-protocol dose did not show signs of clinical activity

Sources: <u>Grothey et al., 2013</u> Lancet. 381(9863):303-12; <u>Li et al., 2015</u>. Lancet Oncol. 16(6):619-29; <u>Moriwaki et al., 2017</u>. Oncologist. 2017 Sep 11.



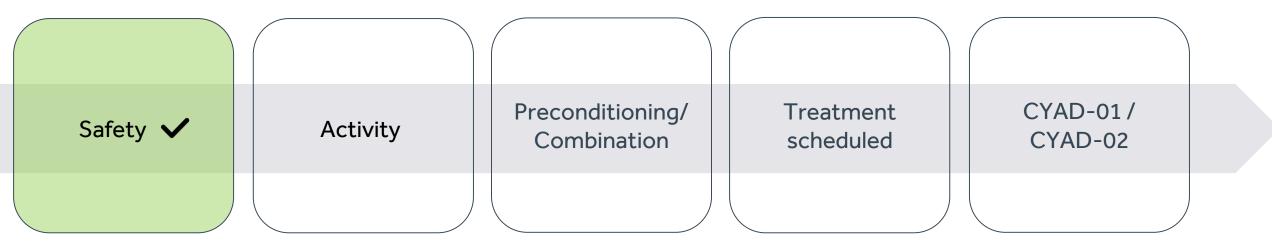


## On our way to market introduction



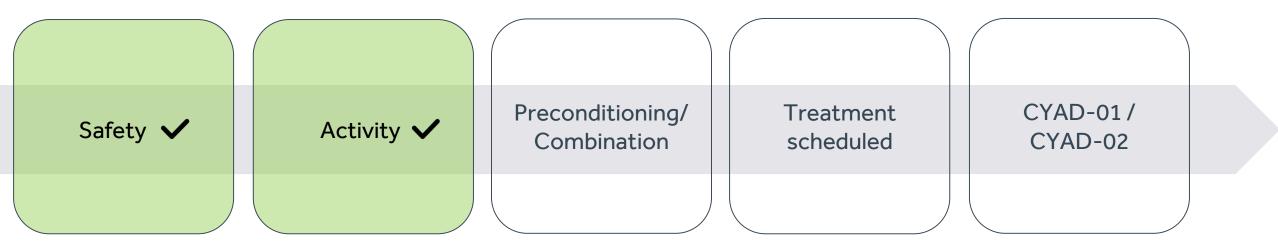


## On our way to market introduction





## On our way to market introduction





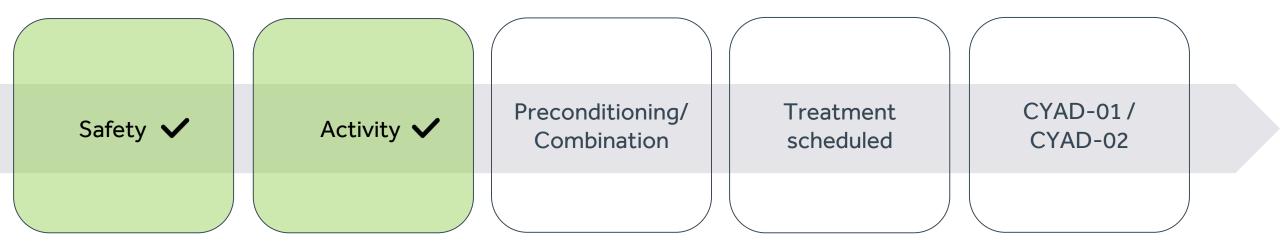


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## Celyad in the next 18 months

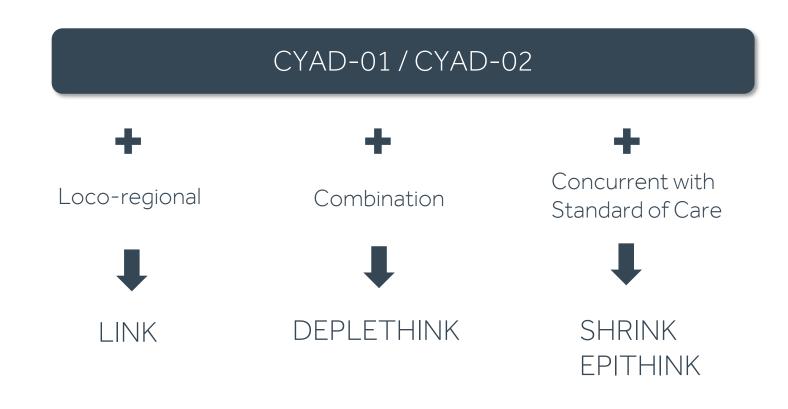






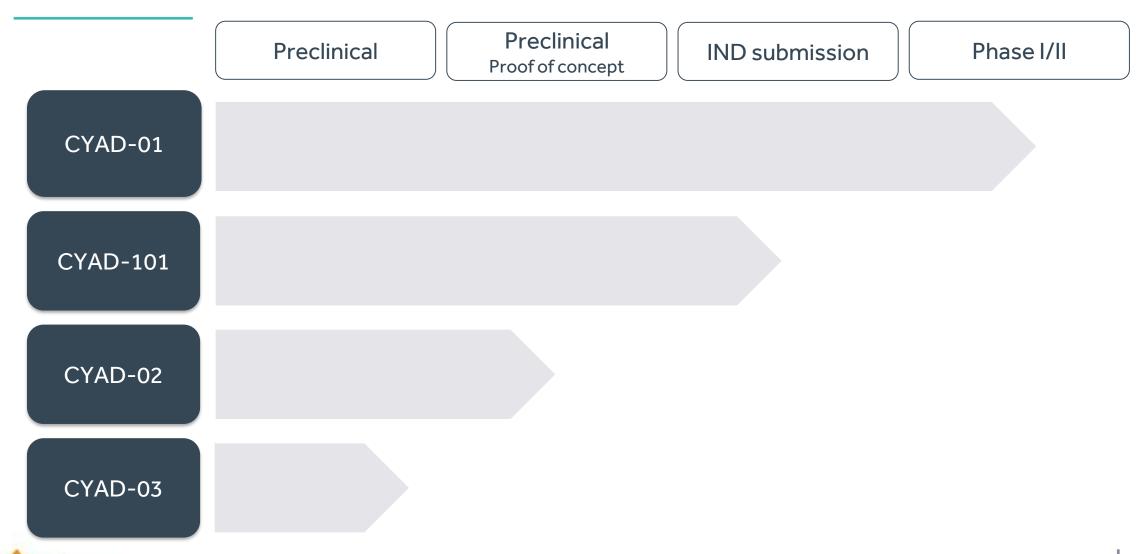
#### Evaluating how to further improve CYAD-01's efficacy

- Aim Assess possibility of increased efficacy without compromising safety
- How Evaluate CYAD-01 using multiple injections or in combination with more conventional approaches (solid and liquid tumors)





## Celyad's pipeline is promising



### Celyad has strong strategic partnerships





- July 2016: Celyad grants exclusive license to ONO for the development & commercialization of allogeneic CYAD-01 in Japan, Taiwan and Korea
- Deal value: \$12.5M upfront
   \$300M in potential milestones &
  double-digit royalties

- May, 2017: Celyad grants non-exclusive license to Novartis for allogeneic TCR-deficient CAR-T cells patents for two undisclosed targets
- Deal value: Up to \$96M upfront & milestones payments
   Single digit royalties

#### Strong IP position



#### Financial snapshot

#### **Cash Position:**

- €34 million as of December 31, 2017\*
- Enabling company's activities through first half of 2019

**Ticker:** Nasdaq (CYAD), Euronext Paris & Euronext Brussels (CYAD.BB)

\* Preliminary estimate abd unaudited





## Thank you

Contact: investors@celyad.com



www.celyad.com



