

# Celyad

Novartis deal

## Novartis says yes to allogeneic technology

Novartis has taken a non-exclusive licence to Celyad's granted allogeneic US patent for \$96m (an upfront fee, we assume \$12m, and milestones) plus single-digit royalties. Novartis, a leading player in the haematological CAR T-cell cancer area, presumably aims to expand out of the limited autologous ALL indication where it has a filed BLA. The \$96m deal sends a clear signal to other CAR T-cell companies to license quickly or risk being locked out of any allogeneic mass market until 2031. Celyad already has an allogeneic deal with ONO in Japan and Asia. Our indicative value has moved to €52.25 per share, formerly €45.

Year end	Revenue (€m)	PBT* (€m)	EPS* (€)	DPS (€)	P/E (x)	Yield (%)
12/15	0.15	(27.80)	(3.20)	0.0	N/A	N/A
12/16	8.52	(22.83)	(2.09)	0.0	N/A	N/A
12/17e	8.28	(27.23)	(2.86)	0.0	N/A	N/A
12/18e	9.00	(25.21)	(2.65)	0.0	N/A	N/A

Note: \*PBT and EPS are normalised, excluding amortisation of acquired intangibles, exceptional items and share-based payments.

## Novartis and allogeneic therapies

On [29 March 2017](#) Novartis announced the FDA acceptance of a priority review on its biological licence application (BLA) for CTL019 (tisagenlecleucel-T), an autologous CAR T-cell therapy for B-cell acute lymphoblastic leukaemia (ALL). This indication has a limited US market, including adults, of 5,970 new cases and 1,440 deaths per year ([SEER](#)). Broadening the use of CAR T-cell therapy and cutting costs by producing an 'off the shelf' allogeneic format is presumably commercially crucial for Novartis. Celyad has a US patent ([US 9181527](#)) granted until 2030 on allogeneic therapy to prevent graft versus host disease from transplanted CAR T-cells. This patent has survived two recent challenges; further worldwide patents are [filed](#). Novartis presumably either needs to use this technology or would infringe the broad claim 1 of this patent; consequently, a non-exclusive deal (with an exclusive option) has been done. This complements the ONO deal in Japan and Asia done by Celyad in 2016 (see note from [13 July 2016](#)). Celyad plans NKR-2 allogeneic trials in 2017. The current THINK NKR-2 CAR T-cell trial in two haematological and five solid tumours is at its second dose level with a US arm underway.

## Valuation: Increased to €52.25 per share

Our valuation focuses on NKR-2 indications. We assume that US\$12m of the US\$96m Novartis deal value is paid in 2017; the net amount (less assumed royalties to the patent holder) is about €8m – this is comparable to the 2016 ONO deal. Celyad has guided that it plans to spend between €35m and €40m in 2017 and 2018, which gives cash into 2019; we have increased our 2018 year-end cash from €20m to €29m but costs may rise. The ex-royalty NPV of the Novartis deal is estimated by us at c €25m. As we believe that this deal will force other CAR T-cell companies to also license this patent or be locked out of the allogeneic market until 2031, we have increased the nominal allogeneic value from €10m to €50m, possibly conservatively. The increased allogeneic value and reduced net operating cash use to 2023 takes the indicative value to €52.25/share, formerly €45/share.

Pharma & biotech

4 May 2017

**Price** €32.40

**Market cap** €309m

\$1.11/€

Cash (€m) at 31 December 2016 82.6

Shares in issue 9.52m

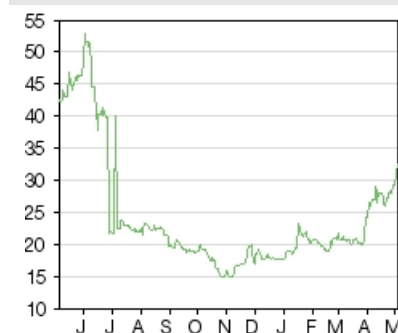
Free float 62.4%

Code CYAD

Primary exchange Euronext Brussels

Secondary exchange NASDAQ

### Share price performance



% 1m 3m 12m

Abs 22.9 57.4 (22.8)

Rel (local) 18.8 44.3 (33.6)

52-week high/low €52.9 €14.8

### Business description

Celyad is developing an innovative CAR T-cell (NKR-2) immuno-oncology technology. The THINK Phase Ib study is underway in haematological and five solid tumour types. Celyad is seeking a strategic partner for C-Cure, an autologous stem cell therapy for chronic heart disease.

### Next events

Start of SHRINK Q217

Start of LINK Q317

H117 results Q317

THINK final dose data Q417

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**Exhibit 1: Financial summary**

	€000s	2015	2016	2017e	2018e
Year end 31 December		IFRS	IFRS	IFRS	IFRS
<b>PROFIT &amp; LOSS</b>					
Revenue		0	8,523	8,280	9,000
Cost of Sales		(1)	(53)	0	0
Gross Profit		(1)	8,470	8,280	9,000
EBITDA		(28,089)	(24,065)	(26,720)	(24,700)
Operating Profit (before amort and except)		(28,362)	(24,825)	(27,480)	(25,460)
Intangible Amortisation		(760)	(756)	(756)	(756)
Other income and charges		0	(521)	0	0
Share-based payments		(795)	493	0	0
Operating Profit		(29,917)	(25,609)	(28,236)	(26,216)
Net Interest		558	1,997	250	250
Profit Before Tax (norm)		(27,804)	(22,828)	(27,230)	(25,210)
Profit Before Tax (FRS 3)		(29,359)	(23,612)	(27,986)	(25,966)
Tax		0	6	0	0
Profit After Tax (norm)		(27,804)	(19,482)	(27,230)	(25,210)
Profit After Tax (FRS 3)		(29,359)	(23,606)	(27,986)	(25,966)
Average Number of Shares Outstanding (m)		8.7	9.3	9.5	9.5
EPS - normalised (c)		(320)	(209)	(286)	(265)
EPS - (IFRS) (€)		(3.38)	(2.54)	(2.94)	(2.73)
Dividend per share (c)		0.0	0.0	0.0	0.0
Gross Margin (%)		N/A	N/A	N/A	N/A
EBITDA Margin (%)		N/A	N/A	N/A	N/A
Operating Margin (before GW and except) (%)		N/A	N/A	N/A	N/A
<b>BALANCE SHEET</b>					
Fixed Assets		50,105	53,440	52,074	50,708
Intangible Assets		48,789	49,566	48,810	48,054
Tangible Assets		1,136	3,563	2,953	2,343
Investments		180	311	311	311
Current Assets		109,420	85,366	57,636	31,923
Stocks		0	0	0	0
Debtors		549	1,359	1,359	1,359
Cash (cash plus deposits)		107,513	82,587	54,857	29,144
Other		1,358	1,420	1,420	1,420
Current Liabilities		(11,490)	(11,275)	(11,017)	(10,487)
Creditors		(10,592)	(9,960)	(9,960)	(9,960)
Deferred revenue		0	0	0	0
Walloon loans and bank loan		(898)	(1,315)	(1,057)	(527)
Long Term Liabilities		(36,561)	(36,646)	(35,796)	(34,946)
Loans (non-current) Bank and Walloon		(10,484)	(7,866)	(7,016)	(6,166)
Other long term liabilities		(26,077)	(28,780)	(28,780)	(28,780)
Net Assets		111,474	90,885	62,897	37,198
<b>CASH FLOW</b>					
Operating Cash Flow		(27,862)	(26,689)	(27,192)	(24,578)
Net Interest		558	1,997	861	264
Tax		0	0	0	0
Capex		(838)	(1,782)	(150)	(150)
Acquisitions/disposals		(5,186)	(1,561)	0	0
Financing		109,155	0	0	0
Dividends		0	0	0	0
Other		(3,287)	3,109	(1,249)	(1,249)
Net Cash Flow		72,540	(24,926)	(27,730)	(25,713)
Opening net debt/(cash)		(16,078)	(96,131)	(73,406)	(46,784)
HP finance leases initiated		0	0	0	0
Loan and finance movements		7,513	2,201	1,108	1,380
Closing net debt/(cash)		(96,131)	(73,406)	(46,784)	(22,451)

Source: Edison Investment Research estimates, Celyad reports and announcements.

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