COMPANY NOTE

Rating | Target | Estimate Change

Belgium | Healthcare | Biotechnology

11 September 2018

Jefferies

UCB (UCB BB)

Upgrading on Waning Threats but Limited Near-Term Growth Dictates a Hold

Key Takeaway

The Cimzia biosimilars threat and pipeline R&D depressing margins are both well-flagged. Hence we see limited downside from these, driving our upgraded rating. We believe consensus is too pessimistic on Cimzia, with our EPS 2018-20E +4-7% above, based on higher near-term growth. However, growth and margins are likely to remain muted until the pipeline matures 2021E+, with the shares fully valued based on PE and our hiked €73 PT, hence our Hold.

Higher near-term Cimzia growth drives above consensus forecasts: Anti-TNFα biosimilars are likely to steadily put pressure on Cimzia, lowering net prices even if not taking patient share, in our view. Our Cimzia forecasts are above consensus, driven by higher near-term growth as we expect UCB to capitalise on new launches, including psoriasis, its relatively niche position, and differentiating factors, such as women of child-bearing age label claim.

Pipeline investment to depress margins but well-flagged: We assume fairly heavy R&D investment, particularly for Phase III bimekizumab trials, for above consensus near-term OpEx forecasts, depressing margins until a return to c.30% REBITDA margin from 2021E. Nevertheless, our Core EPS are +4-7% above the Street 2018-20E.

Increasing pipeline positivity: We are impressed by encouraging Phase IIb bimekizumab (IL-17A/F) data to date in psoriasis, PsA and AS and see growth opportunities for biologics in these indications. Competition is fierce in psoriasis but this provides the fastest route to market and overlap with PsA, where along with AS we do see potential, underpinning our $1bn peak sales forecast. For rozanolixizumab (anti-FcRn) for IgG mediated automimmune disorders, we are more bullish on the potential in earlier stage CIDP, than in MG and ITP where UCB is neck and neck with competition. We assume $1.5bn peak sales at 30% probability, with $750m in CIDP. We remain intrigued by PPSI padsevonil for drug-resistant epilepsy, which should play to UCB's strengths. This is an underserved market that supports our $750m peak sales. We assume Evenity is likely approved for osteoporosis in 2019E although the commercial potential remains uncertain. Earlier stage assets include UCB0599 α-synuclein inhibitor and UCB0107 anti-tau Ab.

Key pipeline news flow: (1) Roza MG Phase IIa data 3Q18E and ITP Phase IIa data 4Q18E before Phase III start; CIDP Phase II start 1Q19E. (2) Bimekizumab start of Phase III trials in PsA and AS; Phase III psoriasis data 4Q19E. (3) Padsevonil Phase IIb data 1H20E. (4) Evenity regulatory decisions 1H19E. (5) Dapirolizumab Phase IIb SLE data 4Q18E, a high-risk indication with significant Phase III attrition.

EUR	Prev.	2017A	Prev.	2018E	Prev.	2019E	Prev.	2020E
Rev. (MM)	--	4,530.0	*4,577.9*	4,669.4	*4,767.1*	4,958.5	*4,900.0*	5,153.5
EV/Rev		3.5x		3.4x		3.2x		3.1x
EBIT (MM) Adjusted	--	1,290.0	*1,222.6*	1,263.6	*1,319.5*	1,252.8	*1,423.7*	1,373.7
EV/EBIT		12.4x		12.7x		12.8x		11.6x
EPS-GAAP	--	4.00	*4.12*	4.35	*5.08*	4.79	*5.62*	5.38
EPS Adjusted								
FY Dec	--	4.82	*4.66*	4.77	*5.28*	4.99	*5.82*	5.58
FY P/E		16.2x		16.4x		15.7x		14.0x

As defined by UCB Core EPS
As defined by UCB Recurring EBIT

HOLD
(from UNDERPERFORM)
Price target €73.00
(from €60.00)
Price €78.30^

EQUITY RESEARCH EUROPE

Financial Summary	
Book Value (MM):	€5,813.0
Book Value/Share:	€29.89
Net Debt (MM):	€773.0
Return on Avg. Equity:	14.3%
Net Debt/Capital:	9.0%
Long-Term Debt (MM):	€1,373.0
LTD/Cap:	26.0%
Dividend Yield:	1.4%
Cash & ST Invest. (MM):	€895.0

Market Data	
52 Week Range:	€79.88 - €58.64
Total Entprs. Value:	€16.0B
Market Cap.:	€15.2B
Insider Ownership:	38.2%
Shares Out. (MM):	194.5
Float (MM):	120.1
Avg. Daily Vol.:	326,306

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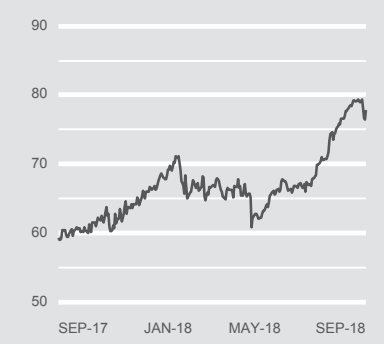
Price Performance



^Prior trading day's closing price unless otherwise noted.

UCB

Hold: €73 Price Target

THE LONG VIEW

Scenarios

Base Case

- We see limited downside potential for UCB in the near-term, with upcoming challenges well flagged, including increasing Cimzia competition and pipeline investment.
- We continue to believe UCB should meet its longer-term core products' sales targets and return to c.30+% REBITDA margin by 2021E, with near-term pressure from hiked R&D spend to advance the pipeline.
- The shares are fully valued on both P/E and NPVs, with our €73 per share Price Target based on an NPV sum-of-the-parts valuation which implies c.14.5x 2019E P/E.

Upside Scenario

- Minimal impact on Cimzia sales growth from future anti-TNFα biosimilars and orals could add around €4/share.
- Evenity regulatory approvals could be worth c.€2/share.
- Positive pipeline clinical data, notably for dapirolizumab, bimekizumab and padsevonil, could together add around €8/share.
- Together these potential catalysts could boost our NPV sum-of-the-parts valuation to c.€87/share, implying around 17.5x 2019E P/E.

Downside Scenario

- A more rapid Cimzia decline could lower our NPV valuation by at least €2/share.
- Evenity further regulatory delays or concerns could remove c.€1/share.
- Pipeline setbacks, notably for bimekizumab and padsevonil, could together remove about €7/share.
- These setbacks could reduce our NPV sum-of-the-parts valuation to c.€63/share, implying around 13.0x 2019E P/E.

Investment Thesis / Where We Differ

- We believe consensus is overly pessimistic on the impact to Cimzia from competitor biosimilars, driving our revenue and earnings forecasts above consensus, even with higher costs.
- We are increasingly positive on the pipeline, where we see positive risk/reward, particularly for bimekizumab (IL-17A/F) in PsA and AS, rozanolixizumab (anti-FcRn) in CIDP and PPSI padsevonil in drug-resistant epilepsy. We assume Evenity is approved for osteoporosis in 2019E.

Catalysts

- Rozanolixizumab Phase IIa MG and ITP data during 3Q18E and 4Q18E, respectively
- Start of bimekizumab Phase III trials in PsA and AS by YE18E; Phase III psoriasis data 4Q19E
- Dapirolizumab Phase IIb SLE results during 4Q18E
- Vimpat Phase III data for generalized seizures in 1H19E
- Evenity regulatory decisions 1H19E

Long Term Analysis

Long Term Financial Model Drivers

2017-22E Earnings CAGR	**+4%**
2017-22E Revenue CAGR	+1%
2017-22E REBITDA Margin Change	+140bps

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Bimekizumab: standout or crowded out

Bimekizumab has reported impressive headline Phase IIb efficacy data across a number of autoimmune conditions, supporting the dual IL-17A/F neutralisation mechanism which has been designed to more effectively target both skin and joint inflammation. This approach could lead to improved efficacy over existing therapies, particularly in psoriatic arthritis and ankylosing spondylitis, in our view, which we believe represent the most attractive markets for bimekizumab. Phase III trials in each indication are expected to start 2H18E. We are more cautious on the potential for bimekizumab in psoriasis, where Phase III development is ongoing with data expected 4Q19E. Despite positive efficacy data, this is a competitive market, with bimekizumab lagging behind already marketed IL-17s and the newer IL-23s that may be disease modifying, providing a challenging backdrop.

- **Peak sales:** $1bn WW in psoriasis, psoriatic arthritis and ankylosing spondylitis
- **NPV:** €2.9/share based on a 50% probability
- **News flow:** Start of Phase III trials in psoriatic arthritis and ankylosing spondylitis during 2H18E; Phase III psoriasis data 4Q19E

The role of IL-17 as a therapeutic target in the treatment of autoimmune diseases is well established, with three drugs in this class approved in psoriasis and other inflammatory diseases since 2015 (see Table 1). The first to market and leader is Novartis' (NOVN SW, CHF80.30, Buy) Cosentyx, which reported >$2bn of sales in 2017 following launches in early 2015. Together with the more recently launched IL-23s, these have helped to expand the psoriasis market in the last few years, as outlined in our Tales from the Script report. Snapping on the IL-23 heels is AbbVie's (ABBV, $94, Buy) risankizumab, which was filed in 2Q18 in both the US and Europe for the treatment of psoriasis. Efficacy appears competitive and together with the convenience of less frequent dosing, with injection every 12 weeks after initial doses, if approved risankizumab could be an attractive option for patients.

Table 1: Marketed IL-17s and IL-23s

Product	Company	Mechanism	First Approved	Indications	2017 Sales	2022E Consensus
IL-17s						
Cosentyx (secukinumb)	Novartis	IL-17A	2015 (US and EU: Jan)	PSO; PsA; AS	$2,071m	$4,617m
Taltz (ixekizumab)	Lilly	IL-17A	2016 (US: Mar; EU: Apr)	PSO; PsA	$559m	$2,243m
Siliq/Kyntheum (brodalumab)	Bausch/LEO Pharma	IL-17RA	2017 (US: Feb; EU: Jul)	PSO	ND	NA
IL-23s						
Stelara (ustekinumab)	J&J	IL-12/IL-23	2009 (EU: Jan; US: Sep)	PSO; PsA; CD	$4,011m	$6,844m
Tremfya (guselkumab)	J&J	IL-23	2017 (US: Jul; EU: Nov)	PSO	ND	$1,335m
Ilumya (tildrakizumab)	Sun Pharma/Almirall	IL-23	2018 (US: Mar; EU: Filed)	PSO	NR	NA

Source: Jefferies research, company data. PSO is psoriasis; PsA is psoriatic arthritis; AS is ankylosing spondylitis; CD is Crohn's disease.

Growth opportunities for biologics remain

UCB is targeting psoriasis, psoriatic arthritis and ankylosing spondylitis as the main opportunities for bimekizumab. Despite a wave of novel entrants in recent years, opportunities for growth remain, in our view, as highlighted by market data presented by Novartis summarised in Table 2 and Chart 1. This demonstrates that diagnosis and treatment rates, particularly use of biologics, are much lower than in rheumatoid arthritis (RA). Hence, there is scope for expansion within these indications, in our view. However, we may see less treatment "cycling" as observed with anti-TNFs, with Cosentyx in particular demonstrating a lower immunogenicity potential i.e. fewer anti-drug antibodies. Together with sustained response rates, this may mean that patients remain

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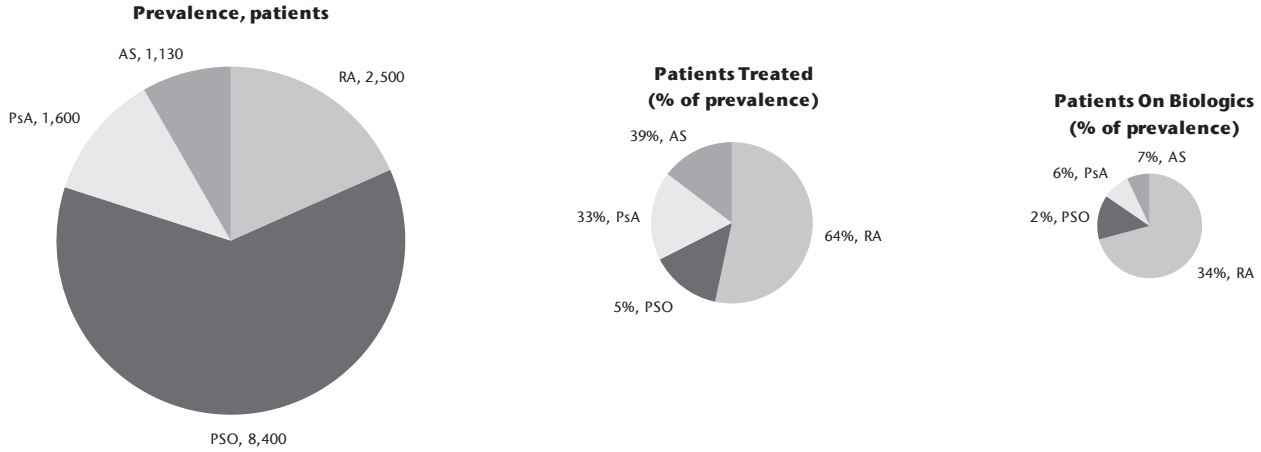
on one therapy for longer. This could make it harder for novel entrants to effectively switch patients in the absence of significant differentiation or obvious patient benefits.

Table 2: Overview of US treatment and diagnosis rates

2016 US patients (000s)	Rheumatoid Arthritis	Psoriasis	Psoriatic Arthritis	Ankylosing Spondylitis	Total (ex RA)
Prevalence	2,500	8,400	1,600	1,130	11,130
Diagnosed (%)	*88%*	*20%*	*63%*	*46%*	*29%*
Patients diagnosed	2,200	1,700	1,000	520	3,220
Treated (%)	*73%*	*25%*	*54%*	*85%*	*43%*
Patients treated	1,600	425	535	440	1,400
Biologics (%)	*53%*	*39%*	*19%*	*19%*	*25%*
Patients on biologics	845	164	100	84	348

Source: Jefferies research, adapted from Novartis November 2017 R&D presentation

Chart 1: A small proportion of patients currently receive any treatment, with even fewer on biologics



Source: Jefferies research, adapted from Novartis November 2017 R&D presentation

Table 3: Phase III overview

Phase III	Comparator	Endpoints
BE VIVID	Stelara/Placebo	PASI90/IGA 0/1
BE SURE	Humira	PASI90/IGA 0/1
BE READY	Placebo	PASI90/IGA 0/1
BE RADIANT	Cosentyx	PASI100
BE BRIGHT	Pooled safety study	

Source: Jefferies, company data

Psoriasis the lead but crowded indication

A Phase III programme consisting of three efficacy trials, in addition to a Phase IIIb head-to-head trial is underway, with first data expected 4Q19E. The Phase III programme for regulatory approvals will compare bimekizumab to Stelara, Humira and placebo, with the Phase IIIb against Cosentyx primarily for marketing, in our view. The aim of the programme is to demonstrate superiority against the gold standard today (Humira and Stelara) and the anticipated gold standard of tomorrow (Cosentyx). This is an ambitious and costly plan that is not without risk, particularly as novel agents such as risankizumab are launched in the interim, which could prove to be highly successful and may alter current market dynamics, potentially rendering any bimekizumab superiority benefits less relevant.

Although we believe this comprehensive approach is needed in order to have any possibility of penetrating the crowded psoriasis market, realising a significant return on investment could be challenging given the competitive backdrop. However, UCB believes psoriasis will provide the fastest route to market, and that a presence in psoriasis will be needed to successfully penetrate the psoriatic arthritis market, given the overlap between the two indications – around 30% of psoriasis patients also suffer from psoriatic arthritis. UCB is also in the process of launching Cimzia in psoriasis, which will provide valuable experience.

In the Phase IIb BE ABLE bimekizumab dose ranging trial in 250 patients with moderate to severe plaque psoriasis, an impressive 79% of patients on the 320mg dose achieved a PASI90 score (90% reduction in baseline Psoriasis Area and Severity Index); at the same

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dose c.56% achieved the "clear skin" PASI100, with 60% reaching this outcome on a lower dose. Efficacy data are summarised in Table 4. The study also suggests bimekizumab has a rapid onset of action, with PASI75 response rates of 70%-80% observed in the higher dose groups as early as week 4. In terms of safety, no unexpected findings were reported with the most common adverse events nasopharyngitis (c.10%) and upper respiratory tract infections (c.6%). Fungal infections, which have been associated with the IL-17 class, were reported in 9 patients (4.3%). There were no cases of anaphylaxis, systemic infections, inflammatory bowel disease or neuropsychiatric events.

Table 4: Bimekizumab Phase IIb BE ABLE efficacy data

	Placebo (n=42)	64mg (n=39)	160mg (n=43)	160mg* (n=40)	320mg (n=43)	480mg (n=43)
PASI75	4.8%	61.5%	81.4%	85.0%	93.0%	83.7%
PASI90	0.0%	46.2%	67.4%	75.0%	79.1%	72.1%
PASI100	0.0%	28.2%	27.9%	60.0%	55.8%	48.8%
IGA (0 or 1)	4.8%	51.3%	74.4%	75.0%	86.0%	76.7%

*Bimekizumab was administered every 4 weeks. Note: *320mg loading dose at baseline*

Source: Jefferies research, adapted from Papp *et al* J Am Acad Dermatol Vol 79(2):277-286

Bimekizumab efficacy appears to be above the top end of other IL-17s and IL-23s, data summarised in Table 5, although this is with the usual caveat of cross trial comparisons not being without risk. Furthermore, the bimekizumab data are from a single Phase IIb trial in a small number of patients at each dose, with a degree of variability associated with PASI scores and with efficacy often more muted in larger Phase III trials.

Table 5: Overview of IL-17 and IL-23 efficacy data

	Cosentyx	Taltz	Siliq	Stelara	Tremfya	Ilumya	risankizumab
PASI75	76%-82%	87%-90%	83%-86%	66%-76%		61%-64%	
PASI90	54%-59%	68%-71%			70%-73%	35%-39%	72%-75%
PASI100		35%-40%	37%-44%			12%-14%	36%-51%
sPGA/IGA (0 or 1)	62%-65%	81%-83%	76%-80%	59%-73%	84%-85%	55%-58%	84%-88%

Source: Jefferies research; FDA labels for Cosentyx, Taltz, Siliq, Stelara, Tremfya, Ilumya; company data for risankizumab

Impressive data in psoriatic arthritis and ankylosing spondylitis

UCB plans to commence Phase III trials in both psoriatic arthritis and ankylosing spondylitis before YE18E, although no details have yet been provided on trial design and scope. The decision to proceed to Phase III follows impressive Phase IIb data reported in each indication, discussed below. As outlined earlier, we believe these indications could represent the most attractive markets for bimekizumab, owing to both less competition and the potential for bimekizumab to demonstrate greater efficacy than existing treatment options.

Table 6: BE AGILE efficacy data

Arm	n	ASAS40	ASAS20
Placebo	60	13.3%	28.3%
16mg	61	29.5%	41.0%
64mg	61	42.6%	62.3%
160mg	60	46.7%	58.3%
320mg	61	45.9%	72.1%

Source: Jefferies, company data

The Phase IIb BE AGILE study in 303 patients with ankylosing spondylitis (AS) investigated four doses of bimekizumab versus placebo. Week 12 efficacy data measured by ASAS (Assessment of Spondyloarthritis International Society) response, a patient global assessment of disease activity, physical function, pain and inflammation, are summarised in Table 6. At the highest bimekizumab doses 46%-47% of patients achieved ASAS40, a 40% disease improvement from baseline, which appears impressive compared to Cosentyx, where 36% of patients achieved this same measure, but with the usual caveats of cross trial comparisons. There were no unexpected safety events, with the most common adverse events nasopharyngitis and headache. The trial is continuing to collect data out to 48 weeks.

In psoriatic arthritis, where data have yet to be presented, the Phase IIb BE ACTIVE dose-ranging study in 206 patients reported that 47% of patients achieved ACR50. For context, the FDA approved labels for Cosentyx and Taltz in psoriatic arthritis report that 35%-37%

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of patients achieved ACR50 on Cosentyx, and 31%-34% on Taltz. In patients treated with bimekizumab also suffering with skin lesions, 65% achieved PASI90 (90% clearance). There were no new safety signals, with nasopharyngitis the most common adverse event. The trial is continuing to collect data out to 48 weeks.

Dual IL-17A and IL-17F neutralisation

UCB's bimekizumab is the most advanced IL-17A/F in development and in contrast to already approved products, bimekizumab neutralises both IL-17A and IL-17F, which could offer advantages over IL-17A alone or compared to a pan-IL-17. IL-17F is of a similar structure and biological function to IL-17A and has been found, together with IL-17A, in psoriatic skin. UCB believes that dual IL-17A/F inhibition could have improved efficacy compared to IL-17A alone, with both implicated in inflammation and in particular in diseases characterised by both skin and joint inflammation. UCB believes that the addition of IL-17F in particular could act more towards joint inflammation. Bimekizumab preclinical data indicate that dual neutralisation leads to greater inhibition of pro-inflammatory mediators in psoriatic arthritis compared to both IL-17A and IL-17F alone, with IL-17F alone being less potent than IL-17A.

Phase IIb data appear broadly supportive that this approach could lead to efficacy improvements in conditions associated with skin and joint inflammation, such as psoriatic arthritis and ankylosing spondylitis, without any loss of efficacy or worsened safety and tolerability.

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Rozanolixizumab: Time is of the essence

Rozanolixizumab is in a closely run race to be the first to market anti-FcRn antibody for immunoglobulin G (IgG) mediated autoimmune diseases. Phase IIa data in myasthenia gravis (MG) are expected 3Q18E which should lead to the start of a Phase III registration study in 1Q19E, just behind the closest competitor. Phase IIa immune thrombocytopenia (ITP) data are also expected this year which could lead to the start of a registration study shortly thereafter. UCB is also targeting a number of other indications characterised by pathogenic IgG auto-antibodies, including chronic inflammatory demyelinating polyneuropathy (CIDP), where a Phase II study is expected to start 1Q19E. We anticipate broadly similar efficacy across the anti-FcRn class, with safety and patient convenience benefits likely to be the key differentiators.

- **Peak sales:** $1.5bn based on $350m in MG, $100m in ITP, $750m in CIDP and $300m in other IgG mediated disorders
- **NPV:** €4.7/share based on a 30% probability
- **News flow:** MG Phase IIa data 3Q18E and start of Phase III 1Q19E; ITP Phase IIa data 4Q18E and start of a Phase III study shortly thereafter; CIDP start of Phase II study 1Q19E

Rozanolixizumab is an anti-FcRn antibody designed to block the neonatal Fc receptor (FcRn), which protects IgG from degradation. This approach could lead to a reduction in serum IgG, with potential in autoimmune conditions characterised by circulating pathogenic IgG auto-antibodies. Rozanolixizumab could replace the use of plasmapheresis/plasma exchange (PLEX) and intravenous immunoglobulin (IVIg), which are often used to treat these diseases. Current development is focused on subcutaneous (SC) administration, which could provide convenience benefits with the potential for patients to self-administer at home, compared to hospitalised use of PLEX and IVIg.

Table 7: Lead anti-FcRns

	Rozanolixizumab	Efgartigimod
MG Phase II data	3Q18E	Dec 2017
MG Phase III start	1Q19E	YE18E
ITP Phase II data	4Q18E	3Q18E
IV	×	✓
SC	✓	✓

Source: Jefferies, company data

A number of competitor anti-FcRn antibodies are also in development, with the closest argenx's (ARGX BB, €75.00, NC) efgartigimod. This has completed a Phase II trial in MG, and dosing has started in a global Phase III trial. This is a few months ahead of UCB's development plans in MG, where a Phase III registration study is anticipated to commence 1Q19E, pending Phase IIa data 3Q18E. Efgartigimod is initially being investigated as IV administration (10mg/kg), with SC in earlier development. Efgartigimod is also in a Phase II ITP trial with headline data expected 3Q18E, potentially just ahead of ITP data from UCB.

Efficacy comparisons are challenging, given available data are in different indications, trials, doses and methods of administration. Although not a measure of efficacy, we note that serum IgG reduction, the direct consequence of anti-FcRn administration, appears broadly similar, with a c.50% reduction for efgartigimod at the 10mg/kg IV dose, and a c.50% reduction for 7mg/kg SC rozanolixizumab. As this is likely to influence clinical outcomes, we believe efficacy will be broadly similar, with safety and convenience key. Severe adverse events (AEs) of headache and back pain have been reported with IV rozanolixizumab, limiting dosing, however to date these have been mild-moderate with SC, the main focus for future development. We believe argenx plans to pursue both IV and SC, including an IV loading dose followed by SC maintenance. The lack of an IV rozanolixizumab dose could potentially limit its uptake in *de novo* patients that initially receive hospital based treatment, as we believe physicians will likely prefer to use the same underlying anti-FcRn for both IV and SC administration to minimise the risk of switching, if patients respond well. However, speed to market and commercial spend will also play roles, with UCB more experienced and with deeper pockets, although this is no guarantee of marketing success.

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Opportunities exist but many moving parts

Based on current market sizes and dynamics, we see a total market opportunity for PLEX/IVIg alternatives, for the three indications that UCB is currently pursuing, of >$4.5bn (Table 8). This is based on average Hizentra pricing, a recently approved SCIg in the treatment of CIDP, and assumes no cannibalisation from SCIg. If rozanolixizumab can demonstrate durable efficacy, then pricing could be higher, providing upside. Furthermore, such an outcome could drive higher uptake than current PLEX/IVIg usage, given the short-term benefits associated with these therapies.

Myasthenia gravis

In a Jefferies' MG physician survey conducted December 2017, PLEX was reported as being used in 12% of generalised MG (gMG), with IVIg used in 38% of patients. Based on approximately 42k gMG patients in the US this suggests a potential target patient population of 21k gMG patients, of which around 5k receive PLEX, and c.16k receive IVIg. Hence, based on PLEX alone, which we believe may be easier to convert, we estimate a US/EU opportunity of c.10k patients. There is a larger IVIg opportunity with c.32k patients US/EU, however off-label use of SCIg may also replace existing IVIg. If this occurs, there may be little incentive for patients to switch to SC anti-FcRn from a convenience perspective, aside from potentially shorter infusion times. Additional efficacy data will be needed to assess the potential anti-FcRn uptake in this market.

Immune thrombocytopenia

We estimate there are around 65k patients with chronic ITP in the US with around 50% receiving treatment. First-line treatment is generally with steroids with response rates of 50%-90%, but durable responses in only 10%-30% equating to around 23k-30k patients in the US. There are various options for these steroid-refractory patients including TPO-mimetics (Nplate and Promacta which generated sales of $838m in the US in 2017), off-label Rituxan, Tavalisse (approved April 2018), splenectomy and IVIg, with patients often cycling between treatments. According to a recent Jefferies' ITP survey IVIg use in patients that have failed first-line steroids is 7%. We estimate therefore that this could equate to around 3k-4k patients in the US/EU. There could be upside to this if anti-FcRns are used more frequently than current IVIg use, although displacing the well-entrenched TPO-mimetics will be challenging, in our view.

Chronic inflammatory demyelinating polyneuropathy

Prevalence estimates for CIDP vary widely between 1-9 people per 100,000 population, making patient-based sales estimates challenging. However, data from CSL Behring (CSL AU, AUD212, NC) and Baxalta (acquired by SHP LN, 4265p, Buy) suggest that IG treatment of CIDP represents around 19%-23% of IG usage globally, in a global IG market that was worth c.$8-$9bn in 2014/15, suggesting a significant opportunity of around $2.5bn for CIDP IVIg alone.

Table 8: Estimated gMG, ITP and CIDP markets for PLEX/IVIg alternatives

	US/EU estimated patients	Potential Market Opportunity	Rozanolixizumab JEFe peak sales estimates
gMG PLEX/IVIg	42,000	$1,958m	$350m
ITP IVIg	3,500	$163m	$100m
CIDP IG Use Data	N/A	$2,500m	$750m
Other IgG disorders	N/A	N/A	$300m
Total		**$4,621m**	**$1,500m**

Source: Jefferies estimates, market opportunity based on c.$47k/year treatment

Limited but encouraging data

To date rozanolixizumab safety data from a small Phase I study in healthy volunteers has been reported in addition to interim efficacy data from a Phase IIa ITP trial. In the Phase I dose escalation study, severe adverse events (AEs) of headache and back pain were reported with 7mg/kg IV administration, precluding use of higher doses. No severe AEs

Dose limiting AEs on 7mg/kg IV have not observed with SC, including up to 7mg/kg

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were reported with the same SC dose, although headache and back pain were still observed at mild-moderate levels. Serum IgG levels were monitored with a reduction of up to 50% observed, with the greatest reduction by days 7-10, returning to baseline by day 57. No significant effects were observed on IgA, IgD, IgE and IgM.

Interim data from two doses in the ongoing Phase IIa ITP trial were reported at ASH 2017 (n=28) and updated at EHA 2018 (n=30). Patients in the trial had received a median of four prior therapies for ITP. Consistent with the Phase I study, the maximum mean decrease in total IgG was 50% on the higher 7mg/kg SC, observed at Day 22. Clinically relevant improvements in platelet counts (to ≥50x10^9/L from <30x10^9/L) were reported in 33% of the 4mg/kg SC dose group and the 7mg/kg SC dose group. No new safety signals were observed, with 40% patients (6 out of 15) on the 7mg/kg SC dose experiencing grade 1/2 headache. There was one grade 3 AE deemed not treatment related (genital tract bleeding). The trial is ongoing and higher doses have been included, with data expected 4Q18E.

Background on myasthenia gravis

Myasthenia gravis (MG) is a rare neuromuscular autoimmune condition caused by circulating pathogenic IgG antibodies that impair neuromuscular transmission, particularly at the neuromuscular junction, leading to muscle weakness. MG often initially affects ocular muscles, leading to drooping eyelids and blurred vision, then progressing to more generalised MG affecting multiple muscles. Treatment is usually with anticholinesterases, steroids and immunosuppressants. Intravenous immunoglobulin (IVIg) and plasmapheresis/plasma exchange (PLEX) are also used, but generally for the treatment of more severe cases where patients require hospitalisation, but both are also used chronically. Thymectomy surgery can also be used to treat MG. Alexion's (ALXN, $117, Hold) Soliris was approved in October 2017 for generalised MG in adult patients who are anti-acetylcholine receptor antibody positive (AchR+), although we believe use is largely being reserved for refractory patients who have failed existing treatments, given the high cost (~$700k per annum).

In argenx's Phase II trial of 10mg/kg IV efgartigimod in 24 patients with generalised MG, efgartigimod was well tolerated with no severe AEs. The most common adverse event was headache (33%). There was a maximum IgG reduction of >70% with no impact on IgM, IgA and albumin. Efficacy was measured by four efficacy scales over the 11 weeks duration of the study: (1) Myasthenia Gravis Activity-of-Daily-Living (MG-ADL); (2) Quantitative Myasthenia Gravis (QMG); (3) Myasthenia Gravis Composite (MGC); and (4) Myasthenia Gravis Quality of Life (MG-QoL). 75% of patients treated with efgartigimod had a ≥2-point improvement in MG-ADL for at least 6 consecutive weeks compared to 25% of placebo patients (p=0.0391).

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Padsevonil: Playing to its strengths

Padsevonil for highly drug-resistant epilepsy could be the next string to UCB's bow in epilepsy. Based around a unique dual mechanism that inhibits both pre- and post-synaptic channels, it could have potential in highly-drug resistant epilepsy, an area that remains poorly served. This represents a sizeable opportunity, with around 30% of patients uncontrolled on multiple anti-epileptic drugs (AEDs). Padsevonil has demonstrated a meaningful reduction in seizure frequency in a drug-resistant epilepsy proof-of-concept trial. A potentially pivotal study is ongoing with data expected 1H20E. With UCB's experience and expertise in epilepsy, following the commercial successes of both Keppra and Vimpat, we believe UCB is well placed to capitalise on what could be a highly profitable opportunity.

- **Peak sales:** $750m assuming premium pricing to Briviact
- **NPV:** €4.9/share based on a 50% probability and launch in 2022E
- **News flow:** Phase IIb data 1H20E

Padsevonil is a pre- and post-synaptic inhibitor designed for the treatment of highly drug-resistant epilepsy. This affects around 25%-30% of epileptic patients and could be a sizeable opportunity. UCB has launched a number of highly successful drugs in epilepsy, with Keppra reaching a peak of $1.85bn and Vimpat on track to meet our $1.6bn peak sales forecast prior to genericisation from 2022E. Although we remain relatively cautious on the potential for newer entrant Briviact, launched in 2016, we are more intrigued by padsevonil.

Unlike Briviact, which is a more potent version of Keppra with both targeting SV2A, padsevonil has been designed with a unique dual mechanism, with both high affinity to SV2 proteins A, B and C, in addition to moderate affinity to the benzodiazepine site of the GABA-A receptor. Phase IIa data were encouraging with a potentially pivotal Phase IIb ongoing with data expected 1H20E. If this is positive, only one further trial may be needed to secure regulatory approvals.

Potentially pivotal Phase IIb ongoing; data 1H20E

The ongoing global Phase IIb dose finding trial is in 400 patients with drug-resistant focal epilepsy who have failed at least four prior AEDs and are experiencing more than four seizures per month. The study is evaluating four doses of padsevonil compared to placebo and will assess seizure frequency from baseline over the 12-week maintenance period in addition to the 75% responder rate, defined as patients experiencing a ≥75% reduction in seizure frequency from a baseline.

Meaningful reduction in seizure frequency in drug-resistant epilepsy

In a Phase IIa trial in 55 patients with drug-resistant focal seizures that had failed on ≥4 previous AEDs and stable on ≥1 AED, padsevonil treatment resulted in around 31% of patients experiencing a ≥75% reduction in seizure frequency from a baseline median frequency of 8.24 (range 3-130.6) seizures per week. The median reduction in weekly seizures was 55%. No patients were seizure free. The most common AEs were 45% somnolence, 44% dizziness and 26% headache, with two patients with serious AEs and 33% experiencing AEs that required a dose change.

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Upgrading to Hold with €73 PT

We see limited downside potential for UCB in the near-term, with upcoming challenges well flagged, including increasing Cimzia competition and pipeline investment leading to depressed margins. We believe consensus is overly pessimistic on the impact to Cimzia from competitor biosimilars, with EU Humira biosimilars expected from 4Q18E, but not until from end-2022E in the US, driving our revenue forecasts +2%-5% above consensus 2018-20E. This also leads to earnings +4%-7% above consensus 2018-20E, even with higher costs for investment into the pipeline. Despite increasing pipeline positivity, where we see a positive risk/reward, and our more optimistic forecasts, we still expect growth and margins to remain muted until the pipeline delivers from 2021E+, forecasting +1% 2017-22E Revenue CAGR and +4% 2017-2022E EPS CAGR, with margins set to expand from 2021E as R&D investment peaks. The shares appear fully valued, trading in-line with EU Mid-Cap Biopharma peers on c.16x 2019E, and are above our updated NPVs, from which we derive our €73 per share Price Target which implies a c.15x 2019 P/E. This precludes a more positive stance, hence our Hold.

Catching up post 1H: revenues hiked but offset by higher spend from 2019E

Our Cimzia and Vimpat revenues are increased but Briviact and Neupro are decreased following 1H18, leading to revenues increased +2%-5%. We make only minor changes to 2018E OpEx. However, R&D is hiked >15% and S&M >4% from 2019E on increasing pipeline and commercial investments, more than offsetting our Revenue upgrades, leading to 4%-5% EPS cuts from 2019E.

Table 9: EPS increased+3% in 2018E on raised Cimzia and Vimpat, but 4%-5% EPS cuts from 2019E on increasing spend

(EUR millions Dec YE)	2018 Old	2018 New	% Chg	2019 Old	2019 New	% Chg	2020 Old	2020 New	% Chg
Keppra	771.8	774.5	+0%	751.7	779.8	+4%	699.7	725.8	+4%
Vimpat	1,043.3	1,094.7	+5%	1,137.7	1,224.9	+8%	1,242.6	1,339.6	+8%
Briviact	153.2	148.1	-3%	232.0	229.8	-1%	307.3	309.9	+1%
Neupro	324.9	315.1	-3%	346.6	336.9	-3%	366.1	358.0	-2%
Zyrtec	90.1	96.0	+7%	74.3	79.6	+7%	61.3	66.0	+8%
Xyzal	96.1	98.1	+2%	78.2	79.8	+2%	63.7	64.9	+2%
Cimzia	1,480.8	1,507.9	+2%	1,533.8	1,588.5	+4%	1,543.2	1,618.9	+5%
Royalties & Fees	107.5	103.9	-3%	112.3	109.3	-3%	112.4	108.4	-4%
Revenue	4,577.9	4,669.4	+2%	4,767.1	4,958.5	+4%	4,900.0	5,153.5	+5%
Gross Profit	3,384.3	3,458.7	+2%	3,636.3	3,786.9	+4%	3,789.0	3,990.0	+5%
Gross margin %	*73.9%*	*74.1%*		*76.3%*	*76.4%*		*77.3%*	*77.4%*	
Sales & Marketing Expenses	(966.9)	(986.4)	+2%	(995.0)	(1,037.2)	+4%	(1,015.5)	(1,071.1)	+5%
R&D Expenses	(1,136.0)	(1,150.1)	+1%	(1,171.4)	(1,343.6)	+15%	(1,192.5)	(1,385.5)	+16%
General & Admin. Expenses	(198.0)	(198.0)	+0%	(203.9)	(203.9)	+0%	(210.0)	(210.1)	+0%
Operating Income	**1,061.6**	**1,124.6**	+6%	**1,259.5**	**1,192.8**	-5%	**1,363.7**	**1,313.7**	-4%
Operating margin %	*23.2%*	*24.1%*		*26.4%*	*24.1%*		*27.8%*	*25.5%*	
Adjusted Operating Income	**1,222.6**	**1,263.6**	+3%	**1,319.5**	**1,252.8**	-5%	**1,423.7**	**1,373.7**	-4%
Recurring EBIT (REBIT)	***1,061.6***	***1,105.6***	+4%	***1,259.5***	***1,192.8***	-5%	***1,363.7***	***1,313.7***	-4%
Recurring EBITDA (REBITDA)	***1,315.5***	***1,380.0***	+5%	***1,404.2***	***1,354.8***	-4%	***1,516.2***	***1,485.5***	-2%
Pre-tax Profit	991.1	1,044.1	+5%	1,211.5	1,139.8	-6%	1,338.7	1,278.7	-4%
Net Income	776.1	819.1	+6%	959.1	902.5	-6%	1,065.3	1,017.6	-4%
Adjusted Net Income	**877.5**	**898.7**	+2%	**996.9**	**940.3**	-6%	**1,103.1**	**1,055.4**	-4%
EPS (EUR)	4.12	4.35	+6%	5.08	4.79	-6%	5.62	5.38	-4%
Adjusted EPS (EUR)	**4.66**	**4.77**	+3%	**5.28**	**4.99**	-5%	**5.82**	**5.58**	-4%
UCB Core EPS (EUR)	**4.66**	**4.77**	+3%	**5.28**	**4.99**	-5%	**5.82**	**5.58**	-4%
Adjusted Diluted EPS (EUR)	**4.66**	**4.77**	+3%	**5.28**	**4.99**	-5%	**5.82**	**5.58**	-4%

Source: Jefferies estimates

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Table 10: Our forecasts at the upper end or above management's aims

2018	*22-Feb-18* Outlook	Estimates
Revenue	4,500-4,600	4,669
Operating Expenses		+7.0%
Recurring EBITDA	1,300-1,400	1,380
Core EPS	4.30-4.70	4.77

Source: Jefferies estimates, company data

Table 11: We believe UCB should meet its longer-term targets

Core Product Peak Sales 2020E	*02-Mar-10* Outlook	Estimates (€m)	($m)
Cimzia	>€1.5bn	1,570	1,826
Rheumatoid Arthritis		750	872
Crohn's (incl Ulcerative Colitis)		290	337
Other Indications (PsA, AS, etc)		530	616
Vimpat	>€1.2bn	1,340	1,558
Neupro	>€400m	360	419
Briviact (by 2026E); was >€450m	>€600m	640	744

Profitability	Outlook	Estimate
2018E REBITDA Margin (achieved 2017)	30%	30%
2021E REBITDA Margin (Feb-18 aim)	31%	30%

Source: Jefferies estimates, company data originally established in March 2010

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Raising Price Target +22% to €73

Our €73 per share Price Target is based on an NPV sum-of-the-parts valuation. This could increase to €87 per share including potential upside catalysts, most notably only a minimal impact on Cimzia sales growth from future anti-TNFα biosimilars and orals, plus positive pipeline news. However, on the downside we note Cimzia sales erosion could be greater than we predict and Evenity could face more regulatory delays.

Table 12: UCB sum-of-the-parts valuation

	Indication	Peak Sales ($mn)	Value (EURmn)	Prob.	Adj. Value (EURmn)	EUR per share
Keppra	Epilepsy	1,850	1,685	100%	1,685	8.7
Keppra XR	Epilepsy (US)	180	71	100%	71	0.4
Cimzia	Crohn's Disease (incl UC)	400	644	100%	644	3.3
	Rheumatoid Arthritis	900	1,754	100%	1,754	9.0
	AxSpA	350	720	100%	720	3.7
	Psoriatic arthritis	150	317	100%	317	1.6
	Psoriasis	250	369	100%	369	1.9
Vimpat	Epilepsy	1,600	2,360	100%	2,360	12.1
Neupro	Parkinson's Disease & Restless leg syndrome	400	415	100%	415	2.1
	Acute repetitive seizures	150	133	90%	120	0.6
rozanolixizumab	ITP, MG and CIDP	1,500	3,066	30%	920	4.7
padsevonil	Drug-resistant focal epilepsy	750	1,909	50%	954	4.9
Briviact	Epilepsy	750	1,886	100%	1,886	9.7
Evenity (romosozumab)	Osteoporosis	730	376	85%	320	1.6
bimekizumab	PsO, PsA & Ankylosing spondyloarthritis	1,000	1,114	50%	557	2.9
Biotech IP Royalties		175	980	100%	980	5.0
Other marketed products		1,700	1,426	100%	1,426	7.3
Net Cash/(Debt)			(1,195)	100%	(1,195)	(6.1)
Valuation			**18,032**		**14,305**	**73.5**

Source: Jefferies estimates

Table 13: Sources of upside potential and downside risk

Upside		EUR per share	Downside	EUR per share
Cimzia net price erosion from anti-TNF biosimilars	Minimal impact until mid-2020s	4.0	More rapid decline	(2.6)
Evenity regulatory approvals	Approved with differentiated label	1.7	Regulatory concerns or delays	(1.3)
padsevonil Phase IIb in drug-resistant epilepsy	Positive for regulatory filings	3.9	Fails	(4.9)
dapirolizumab Phase III decision in SLE	Positive Phase IIb results	2.1	Discontinued	0.0
bimekizumab Phase III results	Suggest a competitive profile	1.7	Efficacy and/or safety concerns	(1.7)
Potential Upside/(Downside)		**13.5**		**(10.5)**
Potential Valuation		**87.0**		**63.1**

Source: Jefferies estimates

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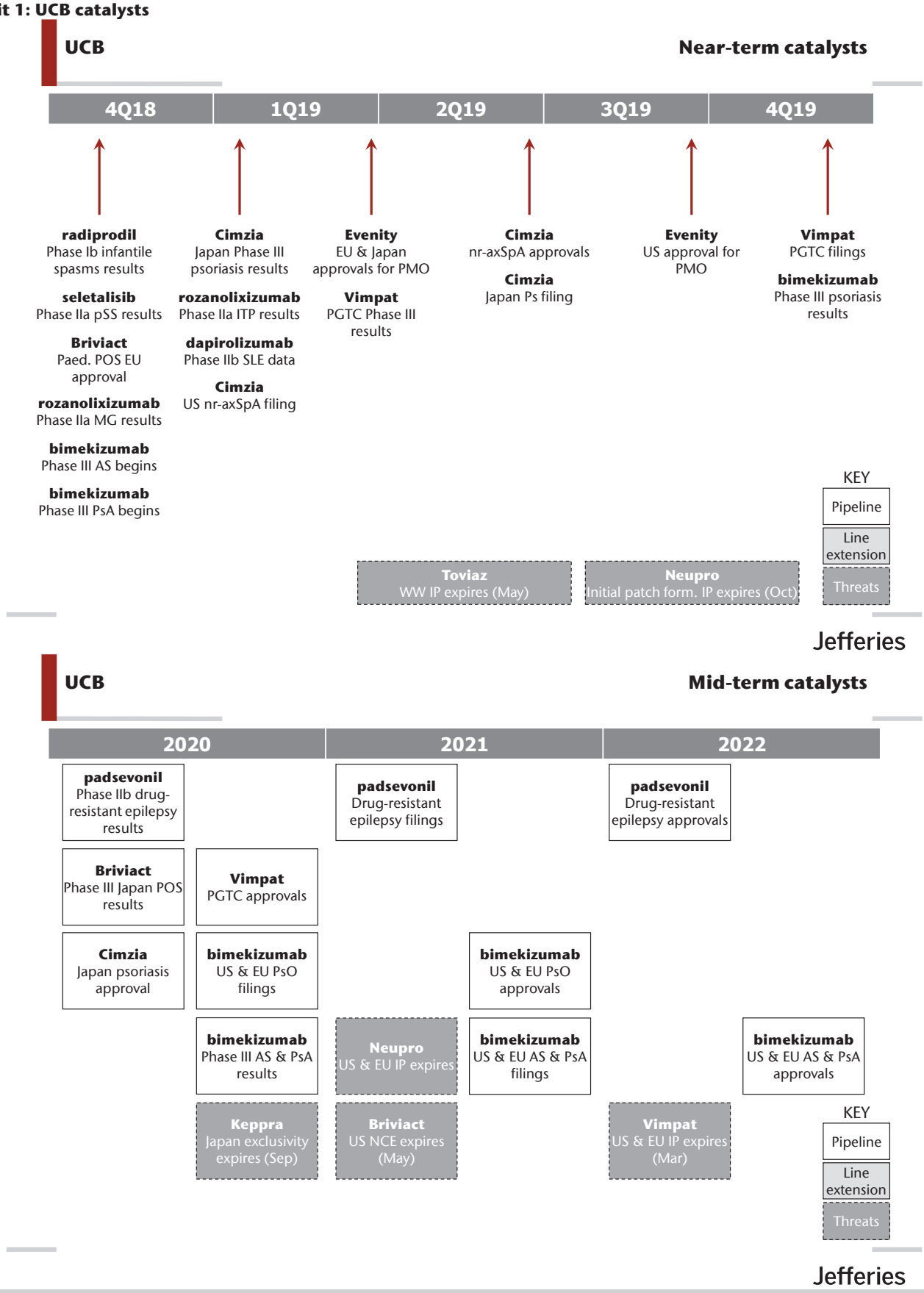
Exhibit 1: UCB catalysts



Source: Jefferies

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Updated financial models

Table 14: UCB Revenue Model

(EUR millions Dec YE)	2017A	1H18A	2H18E	2018E	2019E	2020E	2021E	2022E	Prob.
Neurology & CNS	**2,304.0**	**1,200.8**	**1,280.5**	**2,481.3**	**2,730.0**	**2,918.5**	**3,037.9**	**2,486.3**	
Keppra	778.0	392.0	382.5	774.5	779.8	725.8	606.2	526.8	
US Keppra Sales	*232.0*	*99.3*	*103.6*	*202.9*	*193.7*	*180.8*	*168.9*	*157.9*	100%
European Keppra Sales	*235.0*	*113.0*	*110.3*	*223.3*	*210.9*	*198.1*	*186.0*	*174.7*	100%
RoW Keppra Sales	*311.0*	*179.7*	*168.6*	*348.3*	*375.2*	*346.9*	*251.3*	*194.3*	100%
Vimpat	976.0	522.0	572.7	1,094.7	1,224.9	1,339.6	1,491.4	982.3	
US Vimpat Sales	*746.0*	*387.3*	*432.7*	*820.0*	*916.3*	*1,006.0*	*1,132.3*	*701.9*	100%
ex-US Vimpat Sales	*230.0*	*134.7*	*139.9*	*274.6*	*308.6*	*333.6*	*359.1*	*280.4*	100%
Briviact	87.0	60.0	88.1	148.1	229.8	309.9	396.8	479.5	
US Briviact Sales	*63.0*	*46.0*	*66.1*	*112.1*	*181.0*	*246.6*	*319.1*	*388.7*	100%
ex-US Briviact Sales	*24.0*	*14.0*	*22.0*	*36.0*	*48.8*	*63.3*	*77.7*	*90.8*	100%
Nootropil	44.0	21.8	20.2	42.0	37.8	34.0	30.6	27.6	100%
Metadate CD	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	100%
Neupro	314.0	148.0	167.1	315.1	336.9	358.0	338.0	236.0	
US Neupro Sales	*96.0*	*41.0*	*46.2*	*87.2*	*96.5*	*103.1*	*96.0*	*58.9*	100%
ex-US Neupro Sales	*218.0*	*107.0*	*120.9*	*227.9*	*240.4*	*254.9*	*242.0*	*177.1*	100%
padsevonil	0.0	0.0	0.0	0.0	0.0	0.0	0.0	73.1	50%
Atarax	30.0	20.0	10.0	30.0	30.0	30.0	30.0	30.0	100%
Other CNS (incl Xyrem)	75.0	37.0	40.0	77.0	78.5	80.1	81.7	83.3	100%
Allergy & Respiratory	**207.0**	**109.0**	**85.1**	**194.1**	**159.3**	**130.9**	**107.7**	**88.6**	
Zyrtec (incl Cirrus & Zyrtec-D)	103.0	58.0	38.0	96.0	79.6	66.0	54.8	45.5	100%
Xyzal	104.0	51.0	47.1	98.1	79.8	64.9	52.9	43.1	100%
Immunology/Inflammation	**1,424.0**	**679.0**	**828.9**	**1,507.9**	**1,602.0**	**1,656.1**	**1,711.1**	**1,828.6**	
Cimzia (CDP 870)	1,424.0	679.0	828.9	1,507.9	1,588.5	1,618.9	1,607.3	1,588.5	
US Cimzia (CDP 870) Sales	*918.0*	*416.0*	*548.6*	*964.6*	*1,009.8*	*1,026.8*	*1,019.3*	*1,008.3*	100%
ex-US Cimzia (CDP 870) Sales	*506.0*	*263.0*	*280.3*	*543.3*	*578.8*	*592.1*	*587.9*	*580.2*	100%
Evenity (romosozumab; anti-sclerostin) ex-US/Ja	0.0	0.0	0.0	0.0	13.4	37.2	80.2	122.1	100%
bimekizumab	0.0	0.0	0.0	0.0	0.0	0.0	47.2	236.0	50%
Other Products	**247.0**	**157.2**	**82.8**	**240.0**	**223.2**	**207.6**	**193.0**	**179.5**	
Net Sales Like-for-Like (Prob. Adjusted)	***4,182.0***	***2,146.0***	***2,277.3***	***4,423.3***	***4,714.5***	***4,913.1***	***5,049.7***	***4,583.1***	
Net Sales (Prob. Adjusted)	**4,182.0**	**2,146.0**	**2,277.3**	**4,423.3**	**4,714.5**	**4,913.1**	**5,049.7**	**4,583.1**	
Royalties & Fees	**108.0**	**56.0**	**47.9**	**103.9**	**109.3**	**108.4**	**111.4**	**114.1**	
Other Revenue (incl M/S & Profit-Share)	**240.0**	**67.0**	**75.3**	**142.3**	**134.7**	**132.0**	**128.8**	**126.0**	
Total Group Revenue (Prob. Adjusted)	**4,530.0**	**2,269.0**	**2,400.4**	**4,669.4**	**4,958.5**	**5,153.5**	**5,289.9**	**4,823.2**	
% Change Year over Year									
Neurology & CNS	14.9%	3.8%	11.6%	7.7%	10.0%	6.9%	4.1%	(18.2%)	
Keppra	8.1%	(4.9%)	4.5%	(0.5%)	0.7%	(6.9%)	(16.5%)	(13.1%)	
Vimpat	18.7%	9.4%	14.8%	12.2%	11.9%	9.4%	11.3%	(34.1%)	
Nootropil	(4.3%)	(0.7%)	(8.4%)	(4.5%)	(10.0%)	(10.0%)	(10.0%)	(10.0%)	
Metadate CD	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	
Neupro	5.4%	(3.9%)	4.4%	0.3%	6.9%	6.3%	(5.6%)	(30.2%)	
Atarax	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	
Other CNS (incl Xyrem)	4.2%	2.8%	2.6%	2.7%	2.0%	2.0%	2.0%	2.0%	
Allergy & Respiratory	(5.0%)	(5.2%)	(7.5%)	(6.2%)	(17.9%)	(17.8%)	(17.8%)	(17.7%)	
Zyrtec (incl Cirrus & Zyrtec-D)	(12.0%)	(4.9%)	(9.5%)	(6.8%)	(17.1%)	(17.1%)	(17.0%)	(16.9%)	
Xyzal	3.0%	(5.6%)	(5.8%)	(5.7%)	(18.7%)	(18.6%)	(18.5%)	(18.5%)	
Immunology/Inflammation	9.2%	2.4%	8.9%	5.9%	6.2%	3.4%	3.3%	6.9%	
Cimzia (CDP 870)	9.2%	2.4%	8.9%	5.9%	5.3%	1.9%	(0.7%)	(1.2%)	
Other Products	(17.4%)	55.6%	(43.3%)	(2.8%)	(7.0%)	(7.0%)	(7.0%)	(7.0%)	
Tussionex	(31.5%)	(100.0%)	(100.0%)	(100.0%)	n/a	n/a	n/a	n/a	
Net Sales Like-for-Like (Prob. Adjusted)	9.3%	5.4%	6.1%	5.8%	6.6%	4.2%	2.8%	(9.2%)	
FX Impact	*(1.2%)*	*(4.2%)*	*0.5%*	*(2.0%)*	*1.0%*	*0.0%*	*0.0%*	*0.0%*	
L/C Growth	*10.6%*	*10.0%*	*5.6%*	*7.9%*	*5.5%*	*4.2%*	*2.8%*	*(9.2%)*	
Royalties & Fees	(13.6%)	(3.4%)	(4.2%)	(3.8%)	5.2%	(0.8%)	2.7%	2.4%	
Total Group Revenue (Prob. Adjusted)	9.2%	1.7%	4.4%	3.1%	6.2%	3.9%	2.6%	(8.8%)	

Source: Jefferies estimates, company data

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Table 15: UCB Profit and Loss Model

(EUR millions except EPS Dec YE)	2017A	2018E 1H18A	2018E 2H18E	2018E	2019E	2020E	2021E	2022E
Net Sales	4,182.0	2,146.0	2,277.3	4,423.3	4,714.5	4,913.1	5,049.7	4,583.1
Royalty Income	108.0	56.0	47.9	103.9	109.3	108.4	111.4	114.1
Other Revenue	240.0	67.0	75.3	142.3	134.7	132.0	128.8	126.0
Revenue	4,530.0	2,269.0	2,400.4	4,669.4	4,958.5	5,153.5	5,289.9	4,823.2
Cost of Sales	(1,200.0)	(573.0)	(637.8)	(1,210.8)	(1,171.6)	(1,163.5)	(1,178.9)	(1,043.2)
Gross Profit	**3,330.0**	**1,696.0**	**1,762.7**	**3,458.7**	**3,786.9**	**3,990.0**	**4,111.1**	**3,780.0**
Total Operating Expenses	(2,200.0)	(1,039.0)	(1,314.0)	(2,353.0)	(2,594.0)	(2,676.3)	(2,721.8)	(2,444.0)
Sales & Marketing Expenses	(940.0)	(442.0)	(544.4)	(986.4)	(1,037.2)	(1,071.1)	(1,095.8)	(990.0)
R&D Expenses	(1,057.0)	(500.0)	(650.1)	(1,150.1)	(1,343.6)	(1,385.5)	(1,398.8)	(1,251.2)
General & Admin. Expenses	(192.0)	(88.0)	(110.0)	(198.0)	(203.9)	(210.1)	(215.9)	(195.9)
o/w Acq'n-related Amortisation/Write-downs	(35.0)	(18.0)	(18.0)	(36.0)	(5.0)	(5.0)	(5.0)	(5.0)
Other Operating Income/Expenses	(11.0)	(9.0)	(9.6)	(18.6)	(9.3)	(9.7)	(11.4)	(6.9)
Operating Exceptionals	(43.0)	19.0	0.0	19.0	0.0	0.0	0.0	0.0
Operating Income	**1,087.0**	**676.0**	**448.6**	**1,124.6**	**1,192.8**	**1,313.7**	**1,389.2**	**1,336.1**
Adjusted Operating Income	**1,290.0**	**736.0**	**527.6**	**1,263.6**	**1,252.8**	**1,373.7**	**1,449.2**	**1,396.1**
Net Financial Income	(99.0)	(46.0)	(27.5)	(79.5)	(53.0)	(35.0)	(8.0)	25.0
Exceptionals	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Income from Associates & JVs	0.0	(1.0)	0.0	(1.0)	0.0	0.0	0.0	0.0
Pretax Profit	***988.0***	***629.0***	***421.1***	***1,044.1***	***1,139.8***	***1,278.7***	***1,381.2***	***1,361.1***
Adjusted Pretax Profit	**1,191.0**	**689.0**	**500.1**	**1,183.1**	**1,199.8**	**1,338.7**	**1,441.2**	**1,421.1**
Taxation	(218.0)	(56.0)	(149.0)	(205.0)	(239.4)	(262.1)	(276.2)	(272.2)
Minority Interests	(18.0)	(23.0)	2.0	(21.0)	2.0	1.0	0.0	0.0
Net Income from Continuing Operations	**752.0**	**550.0**	**274.1**	**818.1**	**902.5**	**1,017.6**	**1,105.0**	**1,088.9**
Net Income from Discontinued Operations	1.0	1.0	0.0	1.0	0.0	0.0	0.0	0.0
Net Income	***753.0***	***551.0***	***274.1***	***819.1***	***902.5***	***1,017.6***	***1,105.0***	***1,088.9***
Pre-exceptionals Net Income	*783.0*	*531.0*	*274.1*	*799.1*	*902.5*	*1,017.6*	*1,105.0*	*1,088.9*
Adjusted Net Income	**907.0**	**581.0**	**323.7**	**898.7**	**940.3**	**1,055.4**	**1,142.8**	**1,126.7**
WA Basic Shares (mn)	188.3	188.2	188.2	188.2	188.5	189.0	189.5	190.0
WA Shares Diluted (mn)	188.3	188.2	188.2	188.2	188.5	189.0	189.5	190.0
EPS (EUR)	***4.00***	***2.93***	***1.46***	***4.35***	***4.79***	***5.38***	***5.83***	***5.73***
Adjusted EPS (EUR)	**4.82**	**3.09**	**1.72**	**4.77**	**4.99**	**5.58**	**6.03**	**5.93**
UCB Core EPS (EUR)	**4.82**	**3.09**	**1.72**	**4.77**	**4.99**	**5.58**	**6.03**	**5.93**
Diluted EPS (EUR)	*4.00*	*2.93*	*1.46*	*4.35*	*4.79*	*5.38*	*5.83*	*5.73*
Diluted Adjusted EPS (EUR)	**4.82**	**3.09**	**1.72**	**4.77**	**4.99**	**5.58**	**6.03**	**5.93**
Dividends Paid and Proposed	(230.0)			(255.0)	(294.0)	(363.0)	(432.0)	(469.0)
Net Dividends per Share Interim/Final (EUR)	0.83			0.92	1.06	1.30	1.54	1.67
% Change Year over Year								
Revenue	9.2%	1.7%	4.4%	3.1%	6.2%	3.9%	2.6%	(8.8%)
Cost of Sales	(0.2%)	1.6%	0.3%	0.9%	(3.2%)	(0.7%)	1.3%	(11.5%)
Gross Profit	13.1%	1.8%	5.9%	3.9%	9.5%	5.4%	3.0%	(8.1%)
Total Operating Expenses	2.4%	(0.8%)	14.0%	7.0%	10.2%	3.2%	1.7%	(10.2%)
Sales & Marketing Expenses	0.2%	(4.7%)	14.4%	4.9%	5.1%	3.3%	2.3%	(9.7%)
R&D Expenses	3.6%	5.5%	11.5%	8.8%	16.8%	3.1%	1.0%	(10.6%)
General & Admin. Expenses	4.3%	(5.4%)	11.1%	3.1%	3.0%	3.0%	2.8%	(9.2%)
Operating Income	24.1%	9.2%	(4.1%)	3.5%	6.1%	10.1%	5.8%	(3.8%)
Adjusted Operating Income	35.1%	5.6%	(11.0%)	(2.0%)	(0.9%)	9.6%	5.5%	(3.7%)
Pretax Profit	29.3%	11.5%	(0.7%)	5.7%	9.2%	12.2%	8.0%	(1.5%)
Adjusted Pretax Profit	36.7%	7.3%	(8.9%)	(0.7%)	1.4%	11.6%	7.7%	(1.4%)
Net Income	44.8%	27.8%	(14.9%)	8.8%	10.2%	12.8%	8.6%	(1.5%)
Adjusted Net Income	51.2%	21.8%	(24.7%)	(0.9%)	4.6%	12.2%	8.3%	(1.4%)
EPS (EUR)	44.9%	27.9%	(14.8%)	8.8%	10.0%	12.5%	8.3%	(1.7%)
Adjusted EPS (EUR)	51.2%	21.8%	(24.7%)	(0.9%)	4.5%	11.9%	8.0%	(1.7%)
UCB Core EPS (EUR)	51.2%	21.8%	(24.7%)	(0.9%)	4.5%	11.9%	8.0%	(1.7%)
Diluted Adjusted EPS (EUR)	51.2%	21.8%	(24.7%)	(0.9%)	4.5%	11.9%	8.0%	(1.7%)

Source: Jefferies estimates, company data

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Table 16: UCB Margin Analysis

		2018E					
	2017A	1H18A	2H18E	2018E	2019E	2020E	2021E	2022E
Gross Margin	73.5%	74.7%	73.4%	74.1%	76.4%	77.4%	77.7%	78.4%
Sales & Marketing Expenses	20.8%	19.5%	22.7%	21.1%	20.9%	20.8%	20.7%	20.5%
R&D Expenses	23.3%	22.0%	27.1%	24.6%	27.1%	26.9%	26.4%	25.9%
General & Admin. Expenses	4.2%	3.9%	4.6%	4.2%	4.1%	4.1%	4.1%	4.1%
Operating Income	24.0%	29.8%	18.7%	24.1%	24.1%	25.5%	26.3%	27.7%
Adjusted Operating Income	28.5%	32.4%	22.0%	27.1%	25.3%	26.7%	27.4%	28.9%
Pretax Profit	21.8%	27.7%	17.5%	22.4%	23.0%	24.8%	26.1%	28.2%
Net Income	16.6%	24.3%	11.4%	17.5%	18.2%	19.7%	20.9%	22.6%

Source: Jefferies estimates, company data

Table 17: UCB Cash Flow Model

(EUR millions Dec YE)	2017A	2018E	2019E	2020E	2021E	2022E
Net Income from Continuing Operations	752.0	818.1	902.5	1,017.6	1,105.0	1,088.9
Depreciation and Amortisation	234.0	259.4	161.9	171.8	182.8	193.4
Equity Share-Based Payments	8.0	95.0	99.8	104.7	110.0	115.5
Net Interest Income/(Expense)	55.0	55.5	45.0	30.0	5.0	(25.0)
Other Financial Income/(Expense)	44.0	24.0	8.0	5.0	3.0	0.0
Income Tax Expense	218.0	205.0	239.4	262.1	276.2	272.2
Minority Interest	18.0	21.0	(2.0)	(1.0)	0.0	0.0
Other Adjustments and Exceptionals	(155.0)	0.0	0.0	0.0	0.0	0.0
Adjustments for Non-Cash Items	188.0	400.5	390.1	400.9	394.2	362.7
EBITDA	**1,321.0**	**1,384.0**	**1,354.8**	**1,485.5**	**1,572.0**	**1,529.5**
Pre-exceptionals EBITDA	*1,364.0*	*1,365.0*	*1,354.8*	*1,485.5*	*1,572.0*	*1,529.5*
Recurring EBITDA (UCB)	*1,375.0*	*1,380.0*	*1,354.8*	*1,485.5*	*1,572.0*	*1,529.5*
Decrease/(Increase) in Inventories	(14.0)	0.4	(9.1)	7.4	(5.2)	75.6
Decrease/(Increase) in Receivables	95.0	(0.7)	(28.8)	(16.7)	(9.2)	62.2
Increase/(Decrease) in Payables	(160.0)	3.7	30.3	7.2	5.5	(41.0)
Change in WC	*(79.0)*	*3.4*	*(7.7)*	*(2.0)*	*(8.9)*	*96.8*
Interest Received	16.0	4.5	10.0	15.0	25.0	45.0
Interest Paid	(53.0)	(60.0)	(55.0)	(45.0)	(30.0)	(20.0)
Taxation Paid	(184.0)	(208.3)	(230.8)	(256.4)	(272.7)	(273.2)
Net Cash Flow from Operating Activities	**874.0**	**1,217.7**	**1,171.1**	**1,301.8**	**1,395.4**	**1,493.5**
Purchase of Tangible Fixed Assets	(100.0)	(130.7)	(148.8)	(180.4)	(185.1)	(168.8)
Proceeds from Sale of PP&E	0.0	0.0	0.0	0.0	0.0	0.0
Purchase of Intangible Assets	(109.0)	(246.0)	(85.0)	(89.3)	(93.7)	(98.4)
(Purchase)/Sale of Investments	0.0	(10.0)	0.0	0.0	0.0	0.0
(Acquisitions)/Disposals of Subsidiaries	(19.0)	(12.0)	0.0	0.0	0.0	0.0
Dividends Received from Associates	0.0	0.0	0.0	0.0	0.0	0.0
Net Cash Flow from Investing Activities	**(228.0)**	**(398.7)**	**(233.8)**	**(269.6)**	**(278.9)**	**(267.2)**
Management of Financial & Other Assets	0.0	0.0	0.0	0.0	0.0	0.0
Capital Changes	(105.0)	(51.0)	0.0	0.0	0.0	0.0
Debt Changes	(27.0)	51.0	(276.0)	(401.0)	(398.0)	(350.0)
Equity Dividends Paid	(217.0)	(222.0)	(255.0)	(294.0)	(363.0)	(432.0)
Other Financing Cash Flows	0.0	1.0	0.0	0.0	0.0	0.0
Net Cash Flow from Financing Activities	**(349.0)**	**(221.0)**	**(531.0)**	**(695.0)**	**(761.0)**	**(782.0)**
Effect of FX on Cash and Cash Equivalents	(31.0)	0.0	0.0	0.0	0.0	0.0
Increase in Cash	**266.0**	**597.9**	**406.3**	**337.1**	**355.5**	**444.3**
Change in Net Debt	**(324.0)**	**(546.9)**	**(682.3)**	**(738.1)**	**(753.5)**	**(794.3)**
(Cash Burn)	**646.0**	**818.9**	**937.3**	**1,032.1**	**1,116.5**	**1,226.3**

Source: Jefferies estimates, company data

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Please see important disclosure information on pages 20 - 24 of this report.

Table 18: UCB Balance Sheet Model

(EUR millions Dec YE)	2017A	2018E	2019E	2020E	2021E	2022E
Non-current Assets	**7,240.0**	**7,378.4**	**7,450.2**	**7,548.0**	**7,644.1**	**7,717.9**
Intangible Assets	5,655.0	5,755.0	5,780.0	5,809.3	5,843.0	5,881.4
Property, Plant and Equipment	673.0	702.4	749.2	817.7	880.1	915.5
Deferred Income Tax Assets	715.0	715.0	715.0	715.0	715.0	715.0
Financial and Other Assets	197.0	206.0	206.0	206.0	206.0	206.0
Current Assets	**2,677.0**	**3,196.2**	**3,632.5**	**3,973.9**	**4,340.8**	**4,647.3**
Inventories	597.0	596.6	605.7	598.3	603.5	527.9
Trade Receivables	575.0	575.7	604.5	621.2	630.4	568.2
Other Receivables (incl Income Tax)	246.0	222.0	214.0	209.0	206.0	206.0
Financial and Other Assets	210.0	210.0	210.0	210.0	210.0	210.0
Cash and Cash Equivalents	1,049.0	1,591.9	1,998.2	2,335.4	2,690.9	3,135.1
Total Assets	**9,917.0**	**10,574.6**	**11,082.7**	**11,521.9**	**11,984.9**	**12,365.2**
Current Liabilities	**1,949.0**	**2,126.2**	**2,290.0**	**2,300.0**	**2,261.0**	**2,045.0**
Trade Payables	281.0	288.0	315.9	321.6	326.0	288.8
Other Current Liabilities (incl Income Tax)	1,466.0	1,462.8	1,471.3	1,477.0	1,480.6	1,479.6
Provisions	37.0	38.4	40.8	42.4	43.5	39.6
Deferred Income	73.0	0.0	0.0	0.0	0.0	0.0
Short-term Debt	37.0	244.0	369.0	369.0	350.0	176.0
Other Current Financial Liabilities	53.0	53.0	53.0	53.0	53.0	53.0
Leasing Obligations	2.0	32.0	32.0	29.0	0.0	0.0
Non-current Liabilities	**2,232.0**	**2,114.3**	**1,713.3**	**1,315.3**	**965.3**	**789.3**
Long-term Debt	1,531.0	1,287.0	918.0	549.0	199.0	23.0
Other Non-Current Financial Liabilities	57.0	57.0	57.0	57.0	57.0	57.0
Leasing Obligations	3.0	61.0	29.0	0.0	0.0	0.0
Deferred Tax Liabilities	53.0	53.0	53.0	53.0	53.0	53.0
Deferred Income	0.0	68.3	68.3	68.3	68.3	68.3
Long-term Provisions	588.0	588.0	588.0	588.0	588.0	588.0
Total Shareholders' Equity	**5,813.0**	**6,390.1**	**7,137.3**	**7,965.6**	**8,817.6**	**9,589.9**
Share Capital	0.0	0.0	0.0	0.0	0.0	0.0
Share Premium Account & Treasury Shares	2,257.0	2,206.0	2,206.0	2,206.0	2,206.0	2,206.0
Other Reserves and Adjustments	(255.0)	(311.0)	(311.0)	(311.0)	(311.0)	(311.0)
Retained Earnings	3,811.0	4,495.1	5,242.3	6,070.6	6,922.6	7,694.9
Minority Interests	(77.0)	(56.0)	(58.0)	(59.0)	(59.0)	(59.0)
Total Liabilities and Shareholders' Equity	**9,917.0**	**10,574.6**	**11,082.7**	**11,521.9**	**11,984.9**	**12,365.2**

Source: Jefferies estimates, company data

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Key changes to forecasts

Table 19: Summary estimates changes for UCB

Forecasts (EURm)	2018E New	2018E Old	% Chg	2019E New	2019E Old	% Chg
Sales	4,669.4	4,577.9	+2%	4,958.5	4,767.1	+4%
Adj. EBIT	1,263.6	1,222.6	+3%	1,252.8	1,319.5	-5%
Adj. EPS	4.77	4.66	+3%	4.99	5.28	-5%
Net Cash/(Debt)	(32.1)	182.5	-118%	650.2	920.9	-29%
Drivers of Change	Cimiza and Vimpat increased but Briviact and Neupro decreased post 1H18 which together drive revenue upgrades. R&D and S&M hiked from 2019E offsetting higher revenues, for EPS cuts from 2019E.					

Source: Jefferies estimates

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Company Description

UCB

UCB is a global biopharmaceutical company established with the acquisitions of Celltech in 2004 and Schwarz Pharma in 2006. The company focuses on the two core therapeutic areas of CNS and immunology, using both small molecules and biologics. UCB's blockbuster epilepsy drug Keppra peaked in 2008 when the US patent expired. The company's key products are Vimpat (epilepsy), Cimzia (rheumatoid arthritis, Crohn's disease and other autoimmune disorders), and Neupro (Parkinson's disease).

Company Valuation/Risks

UCB

Our Price Target is based on an NPV sum-of-the-parts valuation. Risks include: (1) increased competition and/or reimbursement/pricing pressures for the core products; (2) accelerated impact on Cimzia from biosimilars; (3) pipeline setbacks notably Evenity, bimekizumab and rozanolixizumab.

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Investment Recommendation Record

(Article 3(1)e and Article 7 of MAR)

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Company Specific Disclosures

Steven DeSanctis owns shares of AbbVie Inc. common shares.

Steven DeSanctis owns shares of Eli Lilly & Company common shares.

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Buy - Describes securities that we expect to provide a total return (price appreciation plus yield) of 15% or more within a 12-month period.

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Underperform - Describes securities that we expect to provide a total return (price appreciation plus yield) of minus 10% or less within a 12-month period.

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Other Companies Mentioned in This Report

- AbbVie (ABBV: $93.82, BUY)
- Alexion Pharmaceuticals, Inc. (ALXN: $117.81, HOLD)
- Almirall (ALM SM: €16.18, HOLD)
- Bausch Health (BHC: $20.67, BUY)
- Eli Lilly & Co. (LLY: $106.42, BUY)
- Johnson & Johnson (JNJ: $137.21, BUY)
- Novartis AG (NOVN SW: CHF80.30, BUY)
- Shire (SHP LN: p4,265.00, BUY)
- Sun Pharmaceutical Industries Ltd (SUNP IN: INR638.00, HOLD)

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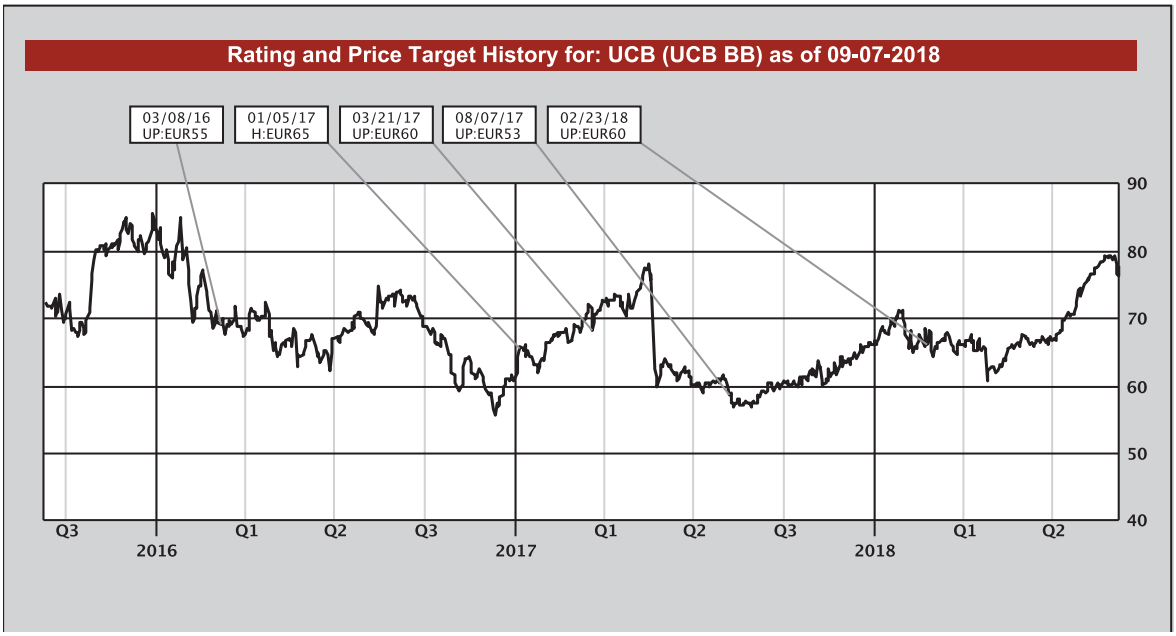

Notes: Each box in the Rating and Price Target History chart above represents actions over the past three years in which an analyst initiated on a company, made a change to a rating or price target of a company or discontinued coverage of a company.

Legend:

I: Initiating Coverage

D: Dropped Coverage

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			IB Serv./Past 12 Mos.		JIL Mkt Serv./Past 12 Mos.	
Rating	Count	Percent	Count	Percent	Count	Percent
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