

Biotechnology

Top European Biopharma/Biotech Ideas for 2020

9 January 2020

Key Takeaway

We remain positive on the biotech sector, at least into 1H 2020 driven by: (1) the promise of clinical breakthroughs and new technologies, (2) further M&A deals, (3) reasonable valuations, and (4) waning near-term US political worries. Our top picks are Genmab, UCB and Oncopeptides. We also highlight potentially compelling risk-reward from upcoming binary events for Newron, Erytech and Cassiopea. Our least preferred stocks are Lundbeck and Galapagos.

Top stock ideas for 2020:

- **Genmab:** Remain confident in an impressive Darzalex sales trajectory and anticipate multiple potential pipeline catalysts, notably a much-anticipated partnership for CD3xCD20 likely 1H20E.
- **UCB:** Increasingly confident new potential blockbuster launches Evenity, bimekizumab and zilucoplan should offset slow-to-declining legacy drugs. Hiking expectations for these key pipeline assets suggests substantial upside on NPVs and our EPS are 8%-14% above cons.
- **Oncopeptides:** Sole asset melflufen should be filed 2Q20E for potential expedited US approval around YE20E to treat multiple myeloma. We are optimistic on pivotal OCEAN trial data in 3Q20E.

Potentially compelling risk-reward from upcoming binary events:

- **Newron:** Phase III STARS data end-1Q20E of sarizotan for rare Rett syndrome.
- **Erytech:** Interim analysis of Phase III TRYbeCA1 trial 3Q20E of eryaspase in 2nd-line pancreatic cancer.
- **Cassiopea:** US FDA approval of Winlevi (clasrocotrone) for acne around the 27 August PDUFA decision date perhaps triggering deal interest.

Least preferred stocks:

- **Lundbeck:** Cautious on the recent Alder acquisition for migraine drug eptinezumab given competition.
- **Galapagos:** Few significant near-term catalysts, plus the shares are trading just above NPV.

Notable changes: We outline our [UCB upgrade to Buy](#) and [Ipsen downgrade to Hold](#) in separate reports. All models are updated, with Price Targets revised for ALK +13%, Erytech -15%, Genmab +3%, Idorsia +18%, Lonza +6%, Lundbeck -2%, Nanobiotix -24%, Oncopeptides -2%, Poxel -6% and Zealand -4%. For Lonza we slow margin expansion, with our 30.3% 2022E Core EBITDA margin now shy of management's 30.5% target, albeit just above current 30.1% cons; our CHF7.52bn 2022E Sales remain above both the CHF7.1bn outlook and CHF7.33bn cons.

Potential sector drivers: (1) The US political overhang has waned, at least for the first part of 2020, as investors seem willing to overlook increasingly unlikely draconian drug price reforms; (2) Clinical data and potential launches of breakthrough drugs, notably new technologies such as cell & gene therapies, aided by a favourable regulatory landscape with flexible risk:benefit assessments and expedited reviews; (3) Sector consolidation, particularly as this accelerated during 2019, with Alder, Medicines Co, Spark, ArQule, Synthorx, and Audentes all recently acquired for healthy

Top biotech/biopharma picks

- Genmab
- UCB
- Oncopeptides

Least preferred stocks

- Lundbeck
- Galapagos

Possible winners

- Newron
- Erytech
- Cassiopea

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premia; (4) Reasonable valuations, notably versus other growth sectors, with most stocks still trading below NPVs.

In this report, we also outline key potential upcoming events for the EU biotech and biopharma sectors and have provided detailed catalyst calendars. Ahead of the intense period of management meetings we flag our [global note with 1000+ "Burning Questions"](#).

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Summary of Changes										
Company	Ticker	Rating	Price	Price Target	EPS Estimates			P/E		
					2018	2019	2020	2018	2019	2020
AC Immune	ACIU	BUY	\$8.99	\$18.00	CHF(0.82)	CHF0.65	CHF(0.73)	--	--	--
ALK-Abello A/S	ALKB DC	HOLD	DKK1,648.00	DKK1,580.00	DKK(12.06)	DKK(0.07)	DKK(0.14)	NM	NM	NM
	<i>Previous</i>			DKK1,400.00	DKK(12.06)	DKK(0.06)	DKK4.94			
Almirall	ALM SM	BUY	€14.74	€20.00	€0.80	€1.24	€1.08	18.4x	11.9x	13.6x
Cassiopea	SKIN SW	BUY	CHF40.00	CHF70.00	€(1.27)	€(1.96)	€(4.10)	NM	NM	NM
	<i>Previous</i>				€(1.27)	€(1.96)	€(3.98)			
Compugen	CGEN	BUY	\$6.09	\$8.00	\$(0.41)	\$(0.43)	\$(0.43)	NM	NM	NM
Cosmo	COPN SW	BUY	CHF74.50	CHF150.00	€(1.20)	€(1.74)	€(0.04)	NM	NM	NM
	<i>Previous</i>				€(1.20)	€(1.75)	€(0.02)			
Erytech	ERYP FP	BUY	€5.95	€23.00	€(2.13)	€(3.20)	€(3.03)	NM	NM	NM
	<i>Previous</i>			€27.00	€(2.13)	€(3.20)	€(3.03)			
Erytech	ERYP	BUY	\$6.73	\$26.00	\$(2.52)	\$(3.58)	\$(3.39)	--	--	--
	<i>Previous</i>			\$30.00	\$(2.52)	\$(3.58)	\$(3.35)			
Galapagos	GLPG NA	HOLD	€183.40	€170.00	€(0.56)	€6.87	€(1.33)	NM	26.7x	NM
	<i>Previous</i>				€(0.56)	€6.87	€(1.29)			
Galapagos	GLPG	HOLD	\$206.26	\$190.00	\$(0.66)	\$7.69	\$(1.49)	--	--	--
	<i>Previous</i>			\$187.00	\$(0.66)	\$7.68	\$(1.42)			
Genmab	GMAB	BUY	\$21.39	\$28.00	\$0.38	\$0.62	\$0.36	56.3x	34.5x	59.4x
	<i>Previous</i>			\$27.00	\$0.38	\$0.62	\$0.36			
Genmab	GMAB DC	BUY	DKK1,419.50	DKK1,900.00	DKK24.00	DKK41.10	DKK24.30	59.1x	34.5x	58.4x
	<i>Previous</i>			DKK1,850.00	DKK24.00	DKK41.10	DKK24.50			
Idorsia	IDIA SW	HOLD	CHF28.96	CHF26.00	CHF(3.04)	CHF(3.77)	CHF(4.27)	NM	NM	NM
	<i>Previous</i>			CHF22.00	CHF(3.04)	CHF(3.84)	CHF(4.27)			
Inventiva	IVA FP	BUY	€3.96	€6.50	€(1.47)	€(1.58)	€(1.28)	--	--	--
	<i>Previous</i>				€(1.47)	€(1.73)	€(1.18)			
Ipsen	IPN FP	HOLD	€78.65	€90.00	€5.93	€7.13	€8.35	13.3x	11.0x	9.4x
	<i>Previous</i>	BUY		€135.00	€5.93	€7.12	€8.20			
Lonza Group AG**	LONN SW	BUY	CHF351.20	CHF420.00	CHF11.98	CHF12.53	CHF13.23	29.3x	28.0x	26.5x
	<i>Previous</i>			CHF395.00	CHF11.98	CHF12.53	CHF13.83			
Lundbeck	LUN DC	HOLD	DKK250.00	DKK240.00	DKK22.25	DKK17.16	DKK14.03	11.2x	14.6x	17.8x
	<i>Previous</i>			DKK245.00	DKK22.25	DKK17.03	DKK13.99			

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					2018	2019	2020	2018	2019	2020
Nanobiotix	NANO FP	BUY	€8.39	€16.00	€(1.55)	€(2.07)	€(1.84)	NM	NM	NM
	<i>Previous</i>			€21.00	€(1.55)	€(2.17)	€(1.88)			
Newron	NWRN SW	BUY	CHF6.10	CHF40.00	€(0.84)	€(1.47)	€(2.44)	NM	NM	NM
	<i>Previous</i>				€(0.84)	€(1.45)	€(2.00)			
Nordic Nanovector	NANO NO	BUY	NOK29.22	NOK60.00	NOK(6.88)	NOK(7.14)	NOK(6.71)	NM	NM	NM
	<i>Previous</i>				NOK(6.88)	NOK(7.14)	NOK(6.73)			
Oncopeptides	ONCO SS	BUY	SEK126.00	SEK220.00	SEK(9.58)	SEK(13.38)	SEK(8.23)	NM	NM	NM
	<i>Previous</i>			SEK225.00	SEK(9.58)	SEK(13.33)	SEK(8.29)			
Oryzon	ORY SM	BUY	€2.96	€4.80	€(0.03)	€(0.06)	€(0.11)	NM	NM	NM
Oxford BioMedica	OXB LN	HOLD	675.00p	700.00p	2.39p	(24.89)p	(6.71)p	--	--	--
	<i>Previous</i>				2.39p	(24.69)p	(5.23)p			
Poxel	POXEL FP	BUY	€12.56	€16.00	€0.54	€(0.70)	€(0.20)	23.3x	NM	NM
	<i>Previous</i>			€17.00	€0.54	€(0.70)	€0.00			
Protalix BioTherapeutics, Inc.	PLX	BUY	\$4.61	\$11.00	\$(1.80)	\$(1.88)	\$(2.20)	NM	NM	NM
	<i>Previous</i>			\$1.10	\$(0.18)	\$(0.19)	\$(0.22)			
UCB	UCB BB	BUY	€73.34	€95.00	€4.78	€4.69	€5.16	15.3x	15.6x	14.2x
	<i>Previous</i>	HOLD		€70.00	€4.78	€4.63	€5.24			
Zealand Pharma A/S	ZEAL DC	HOLD	DKK219.80	DKK225.00	DKK(14.98)	DKK(9.91)	DKK(12.93)	--	--	--
	<i>Previous</i>			DKK235.00	DKK(14.98)	DKK(9.91)	DKK(12.93)			
Zealand Pharma A/S	ZEAL	HOLD	\$32.83	\$34.00	\$(2.37)	\$(1.49)	\$(1.94)	NM	NM	NM
	<i>Previous</i>			\$35.00	\$(2.37)	\$(1.49)	\$(1.91)			

** Franchise Pick

EPS: Almirall: "Normalised" for exceptionals and adjusted for post-tax amortisation of intangibles

EPS: Cosmo: We exclude exceptional gains/losses such as on the sale of investments and demerger of entities.

EBIT (MM): Lonza: Our adjusted profits exclude one-offs and amortisation of acquired intangibles

EBIT (MM): Lundbeck: Adjusted operating income

EPS: As defined by UCB Core EPS

EBIT (MM): As defined by UCB Recurring EBIT

Best of Biotech into 2020

We believe recent strong performance across the global biotech sector during 4Q19 is likely to continue into at least the early part of 2020, driven by a number of factors that have renewed confidence in the sector. (1) The US political overhang has waned, with Elizabeth Warren falling out of favour in the Democratic polls (MFA) and Nancy Pelosi's pricing bill looking unlikely to pass into law; we continue to believe draconian reforms are unlikely to be enacted, with diminishing odds of changes being implemented ahead of the November Presidential election. (2) Numerous key pipeline updates have been extrapolated to bolster confidence in biotech pipelines; notably Biogen's post hoc analysis of the aducanumab Phase III Alzheimer's trials after the drug was largely written-off by the market, Sarepta persuading FDA to reverse course and approve its second DMD therapy, plus exciting clinical breakthroughs in oncology, rare disease gene therapy and cystic fibrosis. (3) M&A has accelerated with significant premiums being paid, notably as a land-grab in cell & gene therapy continues. As well capitalised large-caps continue to seek synergistic new product opportunities for their portfolios, we expect M&A to persist in 2020. Ultimately, we continue to see true clinical benefit being rewarded and expect the sector to be driven by ongoing innovation from the small-mid caps. We favour biotech stocks with innovative pipelines that embrace novel technologies, as these are likely to be well-positioned in increasingly competitive markets. We assume the capital markets remain selective but accessible for funding, albeit often at a cost, particularly for smaller companies and those lacking near-term key catalysts.

Exhibit 1 - Our stock ideas in Biotech and Biopharma

Top Picks	Possible Winners	Least Preferred
Genmab	Newron	Lundbeck
UCB	Erytech	Galapagos
Oncopeptides	Cassiopea	

Source: Jefferies research

Positive on the sector...at least in the first part of 2020

The question for many now is how long global biotech sector momentum can continue in 2020. January typically sets the tone and narrative for the sector, with biotechs outlining their key catalysts/goals for the year ahead and large-caps providing financial outlooks. We are optimistic clinical breakthroughs, a favourable regulatory landscape, plus advances from new technology platforms together can maintain positive fundamentals for the sector. Many investors are likely to be eagerly awaiting continued M&A activity during the first few months of the year, with the risk that signs of a slowdown could perhaps dampen appetite for positive fund flows. As the year progresses, with clarity on the Democrat nominee and then the November Presidential elections, we may see the potential for some profit-taking if appetite for riskier assets dwindles as US political uncertainty again takes centre-stage.

US drug pricing reform easier to swallow in the year-ahead

Heading into the Presidential primaries, we see an ever diminishing likelihood of significant legislation being enacted ahead of polling day. With a number of proposals tabled during 2019, there remains a general expectation that long-term drug price inflation will be tempered and more exorbitant product prices trimmed in the US. Even though debate on reforms is likely to persist during 2020 ahead of potential formal legislation post the US election, updated proposals could potentially end up less punitive than those already tabled, in our view.

Whilst headlines will be grabbed as election candidates outline their positions to address drug pricing, the topic already has bipartisan support, with debate being on the scope and specifics of reforms, somewhat limiting the ability of candidates to dwell on the issue during campaigns, in our view. We maintain radical reforms are unlikely to be implemented, such as Pelosi's version of an international price indexing (IPI), and modest reforms are likely to be accepted by investors.

Our 2020 Biotech/Biopharma Stock Ideas

This year we highlight three picks within our coverage universe (Genmab, UCB and Oncopeptides), plus three with compelling risk-reward from upcoming binary events (Newron, Erytech and Cassiopea). Our least preferred stocks are Lundbeck and Galapagos.

Top biopharma/biotech picks for 2020

Genmab (Buy, Price Target DKK1900, [Recent Research](#))

We remain confident in a continued impressive sales trajectory of Darzalex (daratumumab) for multiple myeloma (MM), with \$10bn WW peak sales in this indication alone. Partner Janssen's ongoing expansion of the clinical programmes justify our belief Darzalex could become a backbone therapy for MM, with a potential role treating other blood cancers. Recent first-line MM approvals are expected to drive an inflection in adoption once the convenient "game-changing" subcutaneous formulation is approved around mid-2020E. We anticipate multiple catalysts could support continued share price momentum and investors' perception as to the value of Genmab's broad early-stage pipeline. Notably, pivotal Phase II tisotumab vedotin (Tissue Factor antibody-drug conjugate) data during 1H20E, which could enable filings, plus we anticipate clinical updates during 2020E for enapotamab vedotin (AXL-ADC) and GEN1029 (HexaBody-DR5/DR5) in solid tumours as well as the nascent immunoncology DuoBody research programmes. Meanwhile, after [promising initial Phase I/II data for GEN3013 \(CD3xCD20\) presented at ASH in December 2019](#), Genmab could secure a much-anticipated partnership, likely during 1H20E. We also see upside from possible incremental strategic partnerships based around the technology platforms. We forecast sustainable profitability, even as R&D spend on the early-stage internal programmes ramps-up, with Darzalex potentially catapulting the earnings trajectory.

UCB (Buy, Price Target €95, [Recent Research](#))

We are increasingly confident that a wave of new, potentially blockbuster product launches over the next few years should offset slow-to-declining sales of key products and continued pipeline investment. We believe concerns around the near-term sustainability and growth trajectory of the business are misplaced, with recent pipeline developments helping to drive near-term revenue and EPS growth. These include, positive Phase III bimekizumab data, for initial launches in psoriasis from 2021E; a surprise but welcome European approval of Evenity in osteoporosis, expected to launch imminently; and the addition of zilucoplan for myasthenia gravis to the pipeline through the sensible acquisition of Ra Pharma, with potential launches from 2022E. These help drive our above consensus forecasts and suggest sustainable near-term growth, even with increasing biosimilar competition for Cimzia and loss of exclusivity for Neupro (2021E) and Vimpat (2022E), all well flagged. UCB currently trades at c.13x 2021E, below EU Mid-Cap BioPharma peers on c.14x, despite robust growth and superior pipeline optionality, in our view. Our updated €95 per share Price Target, based on NPVs, implies c.16x PE, a c.15-20% premium to peers, which we believe is warranted.

Multiple catalysts should support continued share price momentum and perception of the pipeline

Greater confidence business is sustainable, with our EPS 8%-14% above consensus

Oncopeptides (Buy, Price Target SEK220, [Recent Research](#))

Sole clinical asset melflufen (Ygalo) is in development to treat the later stages of relapsed-refractory multiple myeloma (RRMM). It is a novel prodrug of the long established, albeit now less typically used, alkylator melphalan, but is more potent and can overcome resistance to other therapies. Encouraging Phase II HORIZON data, recently updated at ASH in December 2019, will serve as the basis for expedited US filing for triple-class refractory disease during 2Q20E, for potential FDA accelerated approval around YE20E. Data from the Phase III OCEAN study evaluating melflufen head-to-head versus Pomalyst in 3rd+ line RRMM are anticipated during 3Q20E. Regardless of the regulatory path from HORIZON, we expect OCEAN results to be critical determinants of melflufen's price and 3rd+ line peak penetration, which, given the longer treatment duration versus salvage therapy, is a key value driver. Our base case is melflufen just demonstrates superiority versus Pomalyst on progression-free survival (PFS) for a positive OCEAN result and \$625m WW peak sales.

Small-cap biotech pick based on multiple catalysts and upside for sole asset melflufen for RRMM

Possible biotech winners - significant upside from binary events

Newron (Buy, Price Target CHF40)

The key value driver for the shares will likely be results from the pivotal Phase III STARS trial of sarizotan in Rett syndrome around end-1Q20E, delayed from 4Q19 pending a Type A meeting with US FDA to discuss the proposed statistical plan. Importantly, we do not believe the delay has any impact on the likelihood of trial success given that the study remains blinded. Sarizotan has the potential to be the first drug approved for the treatment of respiratory disturbances in Rett syndrome, a rare X-linked disorder, which Newron aims to market itself for potentially highly profitable \$450m peak sales. Commercialising sarizotan itself could propel earnings from 2021E and transform Newron into a fully integrated biopharmaceutical company, with our 50% risk-adjusted NPV for this product alone more than justifying the current share price. Royalty income from WW sales of Xadago, approved as an add-on treatment for Parkinson's disease in Europe and the US, provides a pure profit, albeit modest source of revenue to Newron that should provide a floor valuation for the shares. An efficacy study evaluating Xadago in patients with levodopa-induced dyskinesia (PD-LID) is expected to start imminently, and we assume positive data in 1H22E to expand the addressable patient population and stimulate sales. We have only a token placeholder value for evenamide as an add-on for treatment-resistant schizophrenia patients, with Newron potentially initiating two pivotal studies in early-2020E, albeit subject to regulatory clearance after FDA requested additional studies in late-May on preclinical toxicity concerns. Longer-term, if clinical data are positive, this drug could generate substantial value.

Phase III STARS data due end 1Q20E

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Erytech (Buy, Price Target €23)

Lead product eryaspase consists of the well-established therapeutic enzyme asparaginase (L-ASP) encapsulated within red blood cells, aiming to prolong its effect and improve tolerability. Positive Phase IIb data in second-line pancreatic cancer suggest eryaspase improves overall survival, representing a substantial commercial opportunity that could transform Erytech. The pivotal TRYbeCA1 Phase III global trial is ongoing, evaluating eryaspase in combination with standard chemotherapy (gemcitabine/paclitaxel or irinotecan-based) versus standard chemotherapy alone, in c.500 patients. An interim analysis at c.66% of events is planned to evaluate for superiority of overall survival, anticipated during 3Q20E, with final results potentially by early-2021E. At least a 28% reduction in the risk of death (HR=0.72) is required for TRYbeCA1 success at either the interim or final analysis, a lower bar than the -40% Phase II result in only 141 patients, albeit conducted at only 16 French sites and largely in combination with only gemcitabine chemo regimens. Our 60% risk-adjusted NPV assumes \$500m WW peak sales in second-line pancreatic cancer, and more than underpins the current share price. Proof-of-concept Phase II TRYbeCA2 data in metastatic triple negative breast cancer (TNBC) are expected around YE20E, potentially providing upside to our valuation, if positive.

Cassiopea (Buy, Price Target CHF70)

US approval of Cassiopea's lead product, Winlevi (clascoterone 1% cream), for the treatment of acne is largely expected on or before the 27 August PDUFA decision date, in our view, after the Phase III programme demonstrated encouraging efficacy of this novel topical anti-androgen. Based on our physician channel checks, we believe Winlevi could be rapidly and widely adopted, both as a monotherapy but mainly as part of combination regimens used to treat acne, forecasting \$320m US sales at 90% probability. We currently assume Cassiopea commercialises Winlevi in the US itself, however, we note that Winlevi's launch may be better leveraged by a company with existing US dermatology commercial infrastructure, hence approval could trigger interest from outside parties, in our view.

Least preferred stocks

Lundbeck (Hold, Price Target DKK240, Recent Research)

The Phase III DAYBREAK failure of antipsychotic AF35700 in October 2018, along with the failure of the Phase III trials in bipolar mania in February 2019, heightened scrutiny on the next leg of growth for Lundbeck, culminating a string of Phase III trial disappointments, including the mixed findings for Rexulti in agitation Alzheimer's disease (AD) dementia necessitating a third trial, and the all-out failure of idalopirdine in AD. Acquisitions of Abide Therapeutics and Alder during 2019 have bolstered the pipeline with AG06466 (ABX-1431), in Phase IIa for Tourette's syndrome and Phase I for neuropathic pain, and eptinezumab, filed in the US for migraine prevention, respectively. Whilst the Alder acquisition should partly allay mid-term growth concerns, our NPVs based on \$600m eptinezumab WW peak sales suggest eptinezumab is worth less than the upfront paid for Alder, with >\$1bn peak needed to justify the outlay. Eptinezumab US approval is expected around the 21 February PDUFA decision date as the fourth injectable anti-CGRP to market, however, launch is likely to be sluggish given physicians will need to use a cumbersome temporary reimbursement code until a permanent J-code is secured, plus the product cannot be imported into the US until after approval, suggesting roll-out only from April. The Alder acquisition accelerates EPS CAGR from 2021E but largely by magnifying the trough on eptinezumab launch spend, as we only forecast accretion 2025+E. Notable 1H20E catalysts are Phase IIa data for foliglurax in Parkinson's and AG06466 in Tourette's.

Pancreatic cancer Phase III interim analysis expected 3Q20E

US approval of Winlevi in acne by 27 August PDUFA decision date

Cautious on Alder acquisition which deepens the earning trough ahead of growth acceleration from 2021E

Galapagos (Hold, Price Target €170, [Recent Research](#))

Lead product filgotinib, along with cash, underpins the majority of our sum-of-the-parts valuation. Partner Gilead is well placed to maximise the drug's commercial potential, with European, Japanese and US approvals for rheumatoid arthritis (RA) expected during 2H20E. We forecast \$6bn global blockbuster potential largely comprising \$3bn in RA. The recent broad R&D collaboration with Gilead provides external endorsement of Galapagos' largely underappreciated pipeline and discovery capabilities, with Gilead gaining an opt-in for ex-EU rights for all programmes post-Phase II. The pivotal programme for GLPG1690 for lung fibrosis (IPF) is underway, and could have significant commercial potential, with GLPG1205 in Phase II and GLPG3499 preparing for Phase I for the same indication. GLPG1972 with partner Servier for osteoarthritis (OA) could also be an underappreciated Phase II asset, in our view, albeit high-risk. The Gilead collaboration funds will likely be used to accelerate development of the secretive Toledo programme for inflammatory disorders, aiming to secure Galapagos' first-mover advantage. First-gen compound GLPG3312 (pan-TOL) is due to commence Phase II in ulcerative colitis during 2020E, whilst an extensive Phase II programme across multiple inflammatory indications is also due to start 2H20E with second-gen GLPG3970 (TOL2/3). However, a lack of significant near-term stock-moving catalysts, with risk arguably skewed to the downside given high-risk readouts such as GLPG1205 in IPF, GLPG1690 in sclerosis (SSC) and GLPG1972 in OA, keeps us at Hold.

Lack of significant near-term, stock-moving catalysts suggest risk may be skewed to the downside

Key upcoming events

For investors seeking near-term catalysts we highlight the following in our biotech and biopharma sectors, for which we are on balance positive on the majority. We have largely excluded potential partnerships and out-licensing deals as the likelihood and timing of these is unpredictable.

Exhibit 2 - Key potential upcoming catalysts for biotech and biopharma stocks under coverage

AC Immune	semorinemab (anti-tau Ab) Phase II Alzheimer's disease data during 4Q20E Our view = binary: Phase I data suggest safe, but unproven target and notoriously challenging indication
Cassiopea	US FDA approval of clascoterone cream 1% (Winlevi) for acne around the 27 Aug PDUFA date Our view = +: Confident based on promising Phase III data
Erytech	eryaspase Phase III TRYbeCA1 second-line pancreatic cancer interim analysis for superiority in 3Q20E Our view = binary/+: Encouraged by impressive Phase II survival data but a notoriously challenging indication eryaspase Phase II TRYbeCA2 first-line triple negative breast cancer data in 4Q20E Our view = binary: Success challenging to predict; room for substantial upside if promising signal of efficacy
Galapagos	filgotinib Phase IIb/III SELECTION ulcerative colitis data around mid-2020E Our view = +: Optimistic on success given robust clinical benefits reported in other indications to-date filgotinib US FDA approval for rheumatoid arthritis around the 19 Aug PDUFA date Our view = +: Confident based on Phase III data; room for significant upside if secures differentiated safety label GLPG1972 Phase II ROCCELLA osteoarthritis data around YE20E Our view = binary: Success challenging to predict given novel mechanism of action; safety in focus
Genmab	Potential partnership deal for GEN3013 (CD3xCD20) during 1H20E Our view = +: Optimistic given initial Phase I data were well received showing potentially differentiated profile tisotumab vedotin Phase II second-line cervical cancer data in 1Q20E for potential filings during 2H20E Our view = +: Encouraged by data to-date and significant unmet need potentially mitigating safety profile Regulatory approvals of subcut. formulation of Darzalex during 2Q20E, potentially triggering US sales inflection Our view = +: Confident given physician checks suggesting subcut. formulation could be a game-changer Darzalex Phase III ANDROMEDA systemic amyloid light-chain amyloidosis data during 2Q20E Our view = +: Optimistic based on encouraging Phase II data
Idorsia	daridorexant Phase III insomnia data during 2Q20E and 3Q20E, for potential filings during 2021E Our view = +: Optimistic on positive headline data given promising Phase II findings clazosentan Phase III Japan acute subarachnoid haemorrhage data during 3Q20E for regulatory filings Our view = binary: Chequered development history dictates our conservative 10% probability
Inventiva	lanifibranor Phase IIb NATIVE non-alcoholic steatohepatitis data during 2Q20E Our view = binary: success is challenging to predict; significant upside if promising signal of efficacy

Source: Jefferies estimates

Key potential catalysts continued on the next page...

Exhibit 3 - Key potential upcoming catalysts for biotech and biopharma stocks under coverage

Ipsen	<p>FDA lifting of the palovarotene partial clinical trial hold without necessitating trial modifications during 1H20E</p> <p>Our view = binary: limited visibility on potential future safety monitoring and/or restricted patient subgroups</p> <p>Cabometyx Phase III CM-9ER first-line renal cell carcinoma +Opdivo data during 1Q20E</p> <p>Our view = +: Confident given efficacy data to-date for Cabometyx plus other +PD-X combinations in this setting</p>
Lundbeck	<p>AG06466 (MGLLi) Phase II Tourette syndrome proof-of-concept data during 1Q20E</p> <p>Our view = binary: success is challenging to predict; significant upside if promising signal of efficacy</p> <p>foliglurax Phase IIa Parkinson's disease levodopa-induced dyskinesia data during 2Q20E</p> <p>Our view = binary/+: Cautiously optimistic given clinical data to-date and good tolerability profile</p>
Newron	<p>Phase III STARS results for sarizotan in Rett syndrome during 1Q20E</p> <p>Our view = binary/+: 50% probability given large safety database and encouraging preclinical data</p>
Oncopeptides	<p>FDA acceptance of expedited filing for melflufen in 2Q20E and subsequent accelerated approval around YE20E</p> <p>Our view = +: Confident given efficacy to-date and precedent set by previous drug approvals</p> <p>Phase III OCEAN data for melflufen versus Pomalyst around 3Q20E</p> <p>Our view = +: Optimistic given efficacy to-date</p>
Oryzon	<p>vafidemstat Phase IIa ETHERAL & REIMAGINE-AD data in Alzheimer's showing disease-modifying effect in 2Q20E</p> <p>Our view = binary: Preclinical data promising but showing cognitive benefit in AD is notoriously challenging</p>
UCB	<p>padsevonil Phase IIb ARISE drug-resistant epilepsy during 1Q20E</p> <p>Our view = binary/+: Encouraging efficacy in Phase IIa proof-of-concept trial but challenging indication</p> <p>bimekizumab Phase IIIb psoriasis data versus Cosentyx during 1Q20E</p> <p>Our view = +: Optimistic based on encouraging efficacy to date versus comparators such as Humira</p>

Source: Jefferies estimates

2019 sector overview: Biotech rally during 4Q19

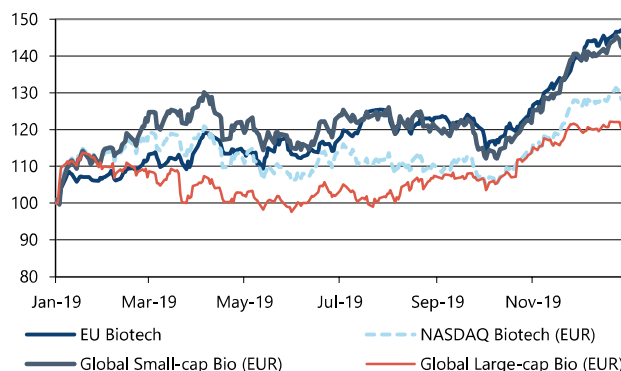
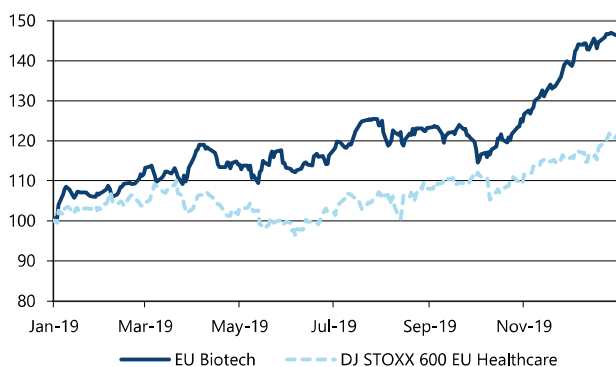
Last year our European biotech sector composite was up +38% (+46% in Euro), proving more resilient than the healthcare sector DRG, mostly in 4Q19 after a muted 3Q19 (left side of Exhibit 5). After an initial strong start in early January across the board in biotech, global large-cap biotechs receded, largely on concerns around US drug pricing reforms, with the sector overall remaining fairly muted until a rally in 4Q19 (right side of Exhibit 5). Global Large-cap Biotechs ended the year up +15% with the Global Small-cap Biotech subsector ahead at +38% in USD. We note a fairly even spread of successes versus disappointments for the European sector, with c.50% of the companies ending the year up. Approximately 21% of European biotechs rose over +50% in 2019.

Exhibit 4 - EU biotech performance

YTD 2019	% stocks
> +50%	21%
+20-50%	14%
+0-20%	13%
-0-20%	15%
-20-50%	24%
< -50%	14%

Source: Jefferies & FactSet

Exhibit 5 - European biotech sector composite versus EU healthcare (LHS) and US (RHS)



Source: Jefferies and FactSet. Data updated 02 January 2020

Exhibit 6 - The ten best and worst EU biotech stocks by 2019 stock performance

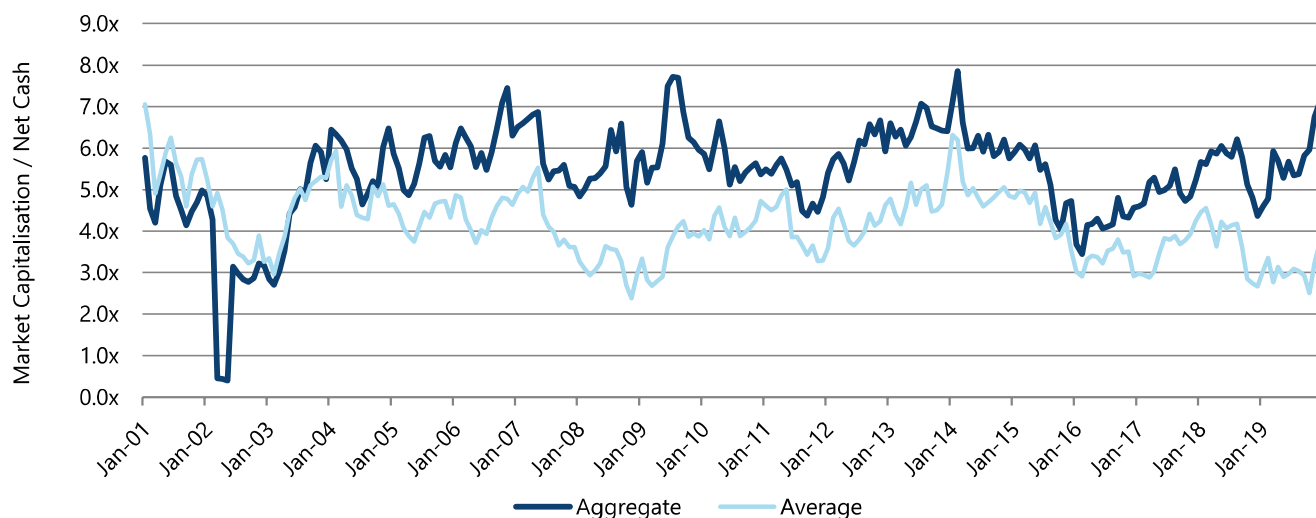
Top 10 performers		Worst 10 performers	
	2019 % change		2019 % change
Silence Therapeutics	+569%	Motif Bio	-99%
Shield Therapeutics	+487%	Mologen	-94%
Faron Pharmaceuticals	+373%	Mero Biopharma	-80%
Pharma Mar	+228%	Genkyotex	-79%
ReNeuron Group	+203%	C4X Discovery	-76%
Avadel Pharmaceuticals	+193%	Kiadis Pharma	-74%
PCI Biotech	+192%	Neovacs	-71%
Zealand Pharma	+186%	Oncimmune	-67%
Veloxis Pharmaceuticals	+175%	Circassia Pharmaceuticals	-60%
Poxel	+140%	Curetis	-59%

Source: Jefferies and FactSet as at close on 31 December 2019

It is difficult to quantify valuations for the small-cap biotech sector, particularly relative to historical levels. We believe a simple but instructive metric is the sector's Market Capitalisation to Net Cash; i.e. the Pipeline Value implied by the current share price.

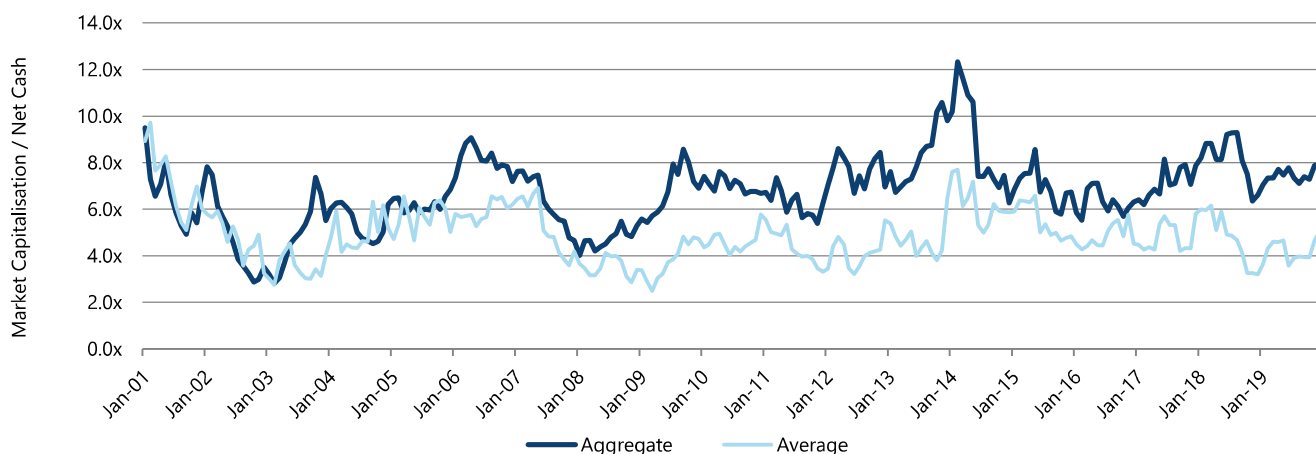
We are optimistic about the R&D output of biotech and our analysis suggests that on this metric both the Global Small-cap (Exhibit 7) and European Biotech (Exhibit 8) sectors are trading broadly around their historic average multiples. Globally around 30% of biotechs are trading below Net Cash, a proportion that has remained relatively stable during the year, and remains well above the historic c.10% floor level (Exhibit 9).

Exhibit 7 - Global Biotech sector relative to Net Cash



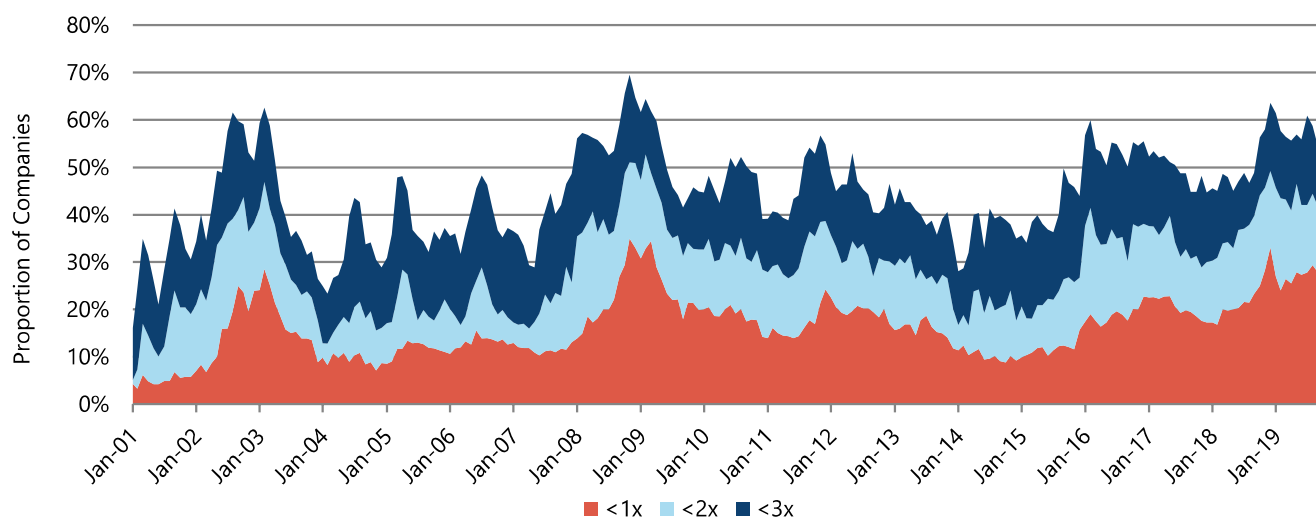
Source: Jefferies and FactSet. Data updated 1 January

Exhibit 8 - EU Biotech sector relative to Net Cash



Source: Jefferies and FactSet. Data updated 1 January

Exhibit 9 - The proportion of biotechs globally trading below 1x cash is c.30%, above the typical floor level of c.10%

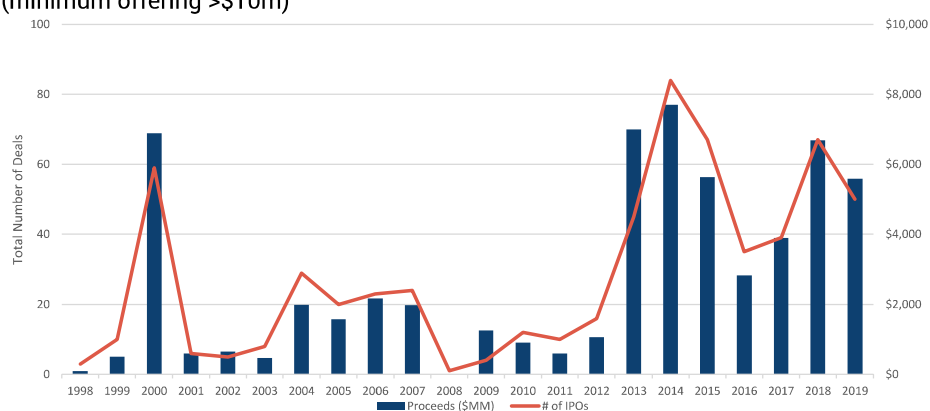


Source: Jefferies and FactSet. Data updated 1 January

US IPO market remained buoyant for Biotech

The US IPO market remained buoyant during 2019 (Exhibit) with 51 listings raising \$5.6bn collectively. Performance was generally positive with an average +49% return (median +17%) and with 65% of stocks ending the year up. Genmab led the pack with a \$506m raise in July, an already well-known European company with a Danish listing since 2000, supported by numerous antibody platform technologies with multiple upcoming pipeline catalysts, plus a significant royalty stream from partner JNJ on potential multi-blockbuster Darzalex for multiple myeloma which provides downside protection, together with a strong balance sheet. We believe the US IPO market will remain healthy at least into 1H20E, and will likely continue to selectively favour companies with strong fundamentals.

Exhibit 10 - Biotech & Biopharma US IPOs (minimum offering >\$10m)



Source: FactSet, Jefferies

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Our EU Biotech Coverage Universe

We base our stock recommendations on a number of considerations including:

- **Valuation:** Based on probability-adjusted net present values (NPVs) for marketed and late-stage products, together with adjusted net cash. We do not normally include products in our sum-of-the-parts valuation prior to the availability of proof-of-concept data.
- **Upside/Downside to NPVs over the next 12 months:** We flex our NPVs based on key news flow events anticipated over a 12-month period; including clinical trial data, out-licensing deals, sales profiles on launch, competitor products and regulatory decisions. We believe catalysts that can drive upside to a valuation are essential for a stock to outperform, whereas in periods absent of news, shares will tend to be range-bound at best.
- **Funding requirements:** We assess the risk of a company needing to raise additional funds to prevent a cash shortfall. Market risk aversion and the equity funding window are likely to determine the discount applied to fundamental valuations for biotechs with potential future cash calls, in our view.

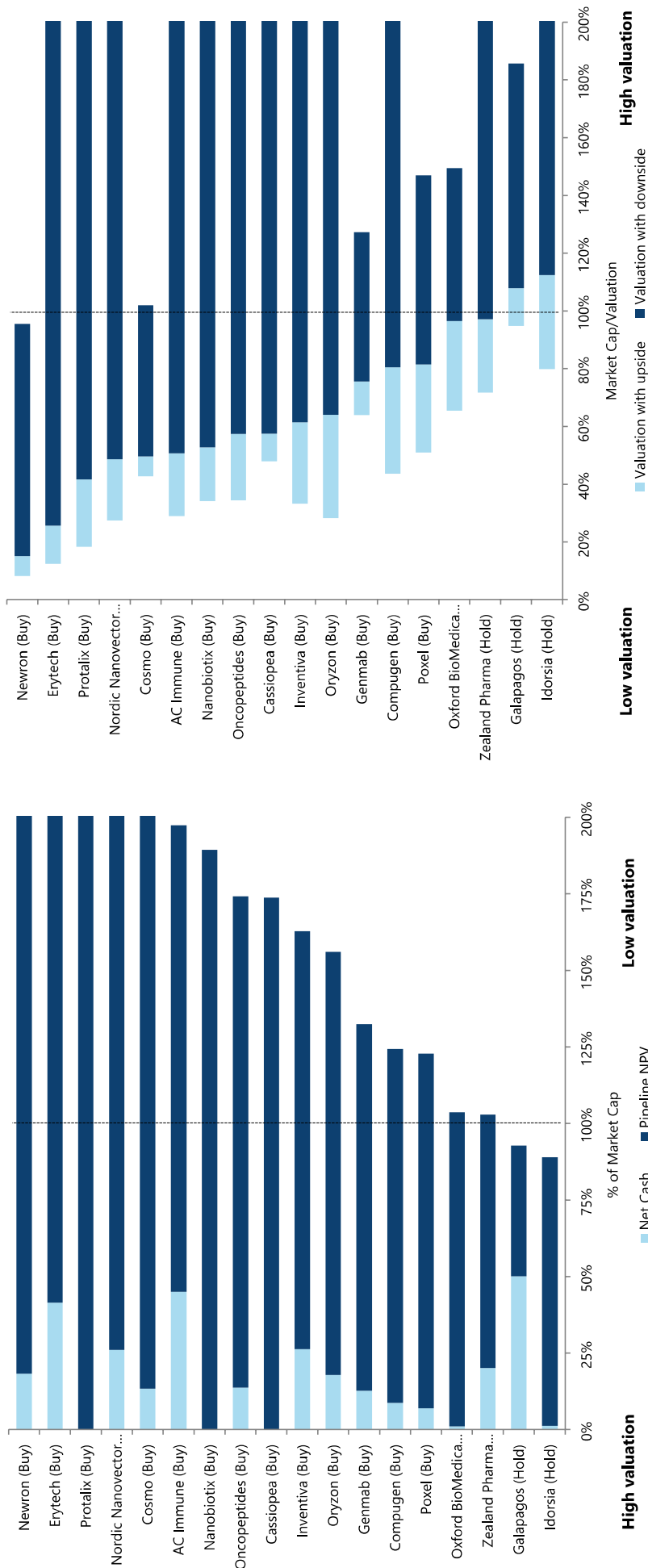
Exhibit 11 - Biotech stock coverage universe

Company	Price	Price	Mkt Cap	Mkt Cap	Rating	Price	Upside/	Performance		
	Currency	(\$m)	(m)	Target		(Downside)	1 Week	1 Month	1 Year	
AC Immune	9.0	USD	650	650	Buy	18	100%	10%	2%	-11%
Cassiopea	40.0	CHF	413	400	Buy	70	75%	-5%	-6%	4%
Compugen	6.1	USD	409	409	Buy	8.0	31%	4%	13%	142%
Cosmo	74.5	CHF	1,127	1,092	Buy	150	101%	-3%	1%	-17%
Erytech	6.0	EUR	119	107	Buy	23	287%	-1%	42%	-7%
Galapagos	183.4	EUR	13,271	11,860	Hold	170	-7%	-1%	-5%	117%
Genmab	1,420	DKK	13,831	92,373	Buy	1900	34%	-4%	-12%	33%
Idorsia	29.0	CHF	3,923	3,801	Hold	26	-10%	-3%	-4%	79%
Inventiva	4.0	EUR	119	106	Buy	6.5	64%	5%	20%	-28%
Nanobiotix	8.4	EUR	208	186	Buy	16	91%	1%	11%	-31%
Newron	6.1	CHF	112	109	Buy	40	556%	-4%	-18%	-1%
Nordic Nanovector	29.2	NOK	220	1,933	Buy	60	105%	-8%	0%	-45%
Oncopeptides	126.0	SEK	744	6,982	Buy	220	75%	-0%	-6%	-4%
Oryzon	3.0	EUR	151	135	Buy	4.8	62%	5%	-2%	13%
Oxford BioMedica	675.0	GBP	683	519	Hold	700	4%	1%	7%	5%
Poxel	12.8	EUR	370	330	Buy	16	25%	13%	70%	144%
Protalix	4.61	USD	68	68	Buy	11	139%	60%	49%	21%
Zealand Pharma	219.8	DKK	1,187	7,925	Hold	225	2%	-7%	4%	152%

Company	Market Cap /NPV	Net Cash as % Market Cap			EV/Sales				P/E			
		2019	2020	2021	2019	2020	2021	2022	2019	2020	2021	2022
AC Immune	51%	45%	36%	22%	3.0	13.5	n/a	n/a	13.4	n/a	n/a	n/a
Cassiopea	58%	-4%	-13%	-21%	n/a	9.3	4.1	1.8	n/a	n/a	n/a	7.2
Compugen	80%	9%	3%	-4%	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Cosmo	50%	11%	11%	14%	19.1	11.7	8.9	5.3	n/a	n/a	56.4	15.1
Erytech	26%	47%	-6%	-56%	10.3	32.0	65.6	5.1	n/a	n/a	n/a	n/a
Galapagos	108%	50%	46%	42%	6.5	9.9	11.5	8.5	26.7	n/a	n/a	212.7
Genmab	76%	12%	15%	18%	15.6	15.2	10.1	7.5	34.6	58.4	34.0	24.0
Idorsia	112%	-5%	-12%	-26%	113.0	155.0	299.6	191.5	n/a	n/a	n/a	n/a
Inventiva	61%	27%	-5%	-33%	12.9	55.8	88.2	133.7	n/a	n/a	n/a	n/a
Nanobiotix	53%	1%	-18%	-40%	47.9	24.7	25.0	16.3	n/a	n/a	n/a	n/a
Newron	15%	18%	-22%	20%	9.7	11.3	0.7	(0.2)	n/a	n/a	2.0	0.7
Nordic Nanovector	49%	26%	4%	-26%	n/a	n/a	n/a	14.0	n/a	n/a	n/a	n/a
Oncopeptides	57%	14%	6%	12%	n/a	24.9	5.2	3.5	n/a	n/a	18.1	9.8
Oryzon	64%	18%	8%	-3%	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Oxford BioMedica	96%	1%	0%	-3%	7.4	5.8	6.5	5.1	n/a	n/a	n/a	n/a
Poxel	81%	7%	5%	0%	8.1	10.2	19.0	2.3	n/a	n/a	n/a	4.5
Protalix	42%	-69%	-128%	37%	2.5	5.7	0.3	(0.1)	n/a	n/a	0.6	1.1
Zealand Pharma	97%	20%	13%	7%	30.1	58.6	56.1	27.0	n/a	n/a	n/a	n/a
Average	65%	13%	-3%	-2%	22.0	29.6	42.9	28.1	24.9	58.4	22.2	34.4
Median	59%	13%	4%	-1%	10.3	13.5	10.8	5.3	26.7	58.4	18.1	8.5

Source: Jefferies and FactSet. Stock prices as of close on 06 January 2020. All values are estimates

Exhibit 12 - Sum-of-the-parts valuation as a proportion of market capitalisation (left) and potential upside and downside risk to our valuations (right)



Source: Jefferies estimates

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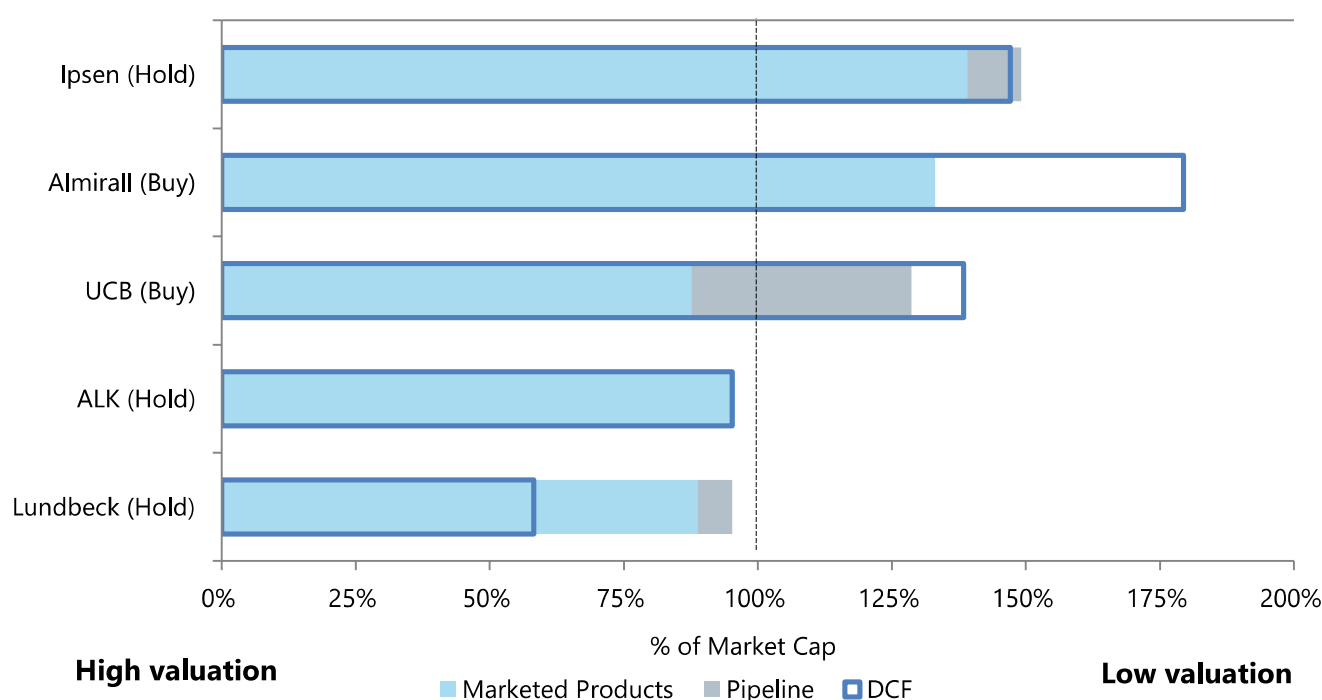
Our EU Biopharma Coverage Universe

Exhibit 13 - European Biopharma comps

Company	FactSet Ticker	Mkt Cap (\$m)	Rating	Price Currency	Price	PE				CAGR 2020-23E		3 Yr PEG 2020
						2019E	2020E	2021E	2022E	EPS	Sales	
Almirall	ALM-ES	2,879	Buy	EUR	14.7	12.7	14.6	11.6	9.2	20%	9%	0.7
Ipsen	IPN-FR	7,376	Hold	EUR	78.7	11.1	9.5	8.7	8.7	4%	4%	2.5
Lundbeck	LUN-DK	7,454	Hold	DKK	250.0	14.6	17.8	21.4	17.8	13%	4%	1.4
UCB	UCB-BE	15,962	Buy	EUR	73.3	15.6	14.2	12.6	12.4	8%	2%	1.8
EU Biopharma Mid Cap						13.5	14.0	13.6	12.0	11%	5%	1.6
ALK	ALK.B-DK	2,499	Hold	DKK	1,648			85.5	40.8	n/a	11%	
Swedish Orphan Biovitrum	SOBI-OME	4,882	Buy	SEK	153	13.4	10.5	8.8	6.6	24%	14%	0.4

Source: Jefferies and FactSet. Stock prices as of close on 06 January 2020. All values are estimates

Exhibit 14 - Price/NPV for our European Biopharma universe



Source: Jefferies and FactSet. Stock prices as of close on 06 January 2020. All values are estimates

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Changes to Price Targets & Estimates

We have rolled-on our models and updated for FX, with any additional notable changes outlined below. Separate notes with full details have been published outlining our [UCB upgrade to Buy](#) and [Ipsen downgrade to Hold](#).

ALK Abello - Maintain Hold, PT +13% to DKK1580

Adjusted our NPV based assumptions to better reflect the likely longevity of the allergy business, already better reflected in our DCF, with our updated NPV-based Price Target DKK1580 per share, largely in-line with our DKK1565 DCF valuation. Our updated forecasts include higher 2020E R&D spend given ongoing Phase III clinical trials.

Erytech - Maintain Buy, PT -15% to €23 (\$26/ADS)

Rolling on for an additional year's cash burn cuts our Price Target 15% to €23 per share.

Genmab - Maintain Buy, PT +3% to DKK1900 (\$28/ADS)

Our Price Target is tweaked to DKK1900 per share primarily on updating FX rates.

Idorsia - Maintain Hold, PT +18% to CHF26

Model updated to include the JPY1bn (c.CHF9m) upfront revenue from Mochida on the license agreement for insomnia drug daridorexant in Japan, driving higher 2019 Revenues. We also increase daridorexant probability of success to 60%, from 30%, but lower our peak sales assumption to c.\$1bn, from \$2bn, given that we now expect Idorsia to market daridorexant alone for a greater share of the economics, versus our prior out-licensing expectation. These changes, along with the inclusion of selatogrel in our valuation at 40% probability, boost our Price Target +18% to CHF26 per share.

Inventiva - Maintain Buy and €6.5 PT

Odiparcil probability of success increased to 20% (from 15%) following recent positive proof-of-concept data treating rare disease MPS VI. Model updated for the €3.5m milestone payment received from partner AbbVie in December 2019 on the inclusion of the first psoriasis patient in the ongoing ABBV-157 Phase I study; this had previously been expected during 2020.

Lonza - Maintain Buy, PT +6% to CHF420

We slow the margin expansion, with our 2022E Core EBITDA margin of 30.3% now shy of management's 30.5% target, albeit just above current 30.1% consensus. We now exceed the 30.5% aim one year later in 2023E. Our CHF7.52bn 2022E Sales remain above both management's CHF7.1bn outlook and the higher CHF7.33bn consensus. The slowed margin ramp trims our earnings by c.4%. Our Price Target increases to CHF420 per share based on the average of 2021E, from 2020E, EV/EBITDA multiples for the two divisions and an updated DCF valuation.

Lundbeck - Maintain Hold, PT -2% to DKK240

Our Price Target is trimmed to DKK240 per share primarily on updating FX rates.

Nanobiotix - Maintain Buy, PT -24% to €16

Our Price Target is cut 24% to €16 per share reflecting the potential future dilution at a lower share price to ensure sufficient funds until YE2022E. Delaying European launch of NBTXR3 treating soft tissue sarcoma into 2021E, as the company focuses on the Head & Neck indication, leads to cuts to near-term revenue estimates.

Newron - Maintain Buy and CHF40 PT

Near-term revenue and EPS estimates are cut to reflect delayed sarlzotan launch for Rett syndrome into 1Q21E, given Phase III data are not now expected until 1Q20E.

Oncopeptides - Maintain Buy, PT -2% to SEK220

Our Price Target is trimmed to SEK220 per share primarily on updating FX rates.

Poxel - Maintain Buy, PT -6% to €16

Our Price Target is trimmed on delaying the launch of PXL065 a few years to 2027E given the need to conduct a Phase III trial, but increased the probability to 30% given the defined regulatory pathway using 505(b)(2). We have also increased our probability on imeglimin in Asia following successful completion of the TIMES Phase III programme.

Protalix - Maintain Buy, PT adjusted to \$11

Model updated for the December 2019 1-for-10 reverse stock split, hence the adjusted \$11 per share Price Target with no changes to underlying forecasts.

Zealand Pharma - Maintain Hold, PT -4% to DKK225 (\$34/ADS)

Our Price Target is trimmed to DKK225 per share primarily on updating FX rates.

Notable recent US list price rises

A number of companies in our coverage universe have recently increased US list prices on key products. We note that discounts and rebates likely mitigate the true effect of these price rises.

Exhibit 15 - Notable US list price rises in recent weeks

Company	Effective	Product	% increase
Almirall	28/12/2019	Seysara	+6.0%
Cosmo	01/01/2020	Aemcolo*	+9.1%
Ipsen	01/01/2020	Increlex	+9.9%
	01/01/2020	Onivyde	+9.9%
	01/01/2020	Somatuline	+9.9%
Lundbeck	02/01/2020	Northera	+7.9%
	02/01/2020	Onfi	+9.5%
	02/01/2020	Sabril	+9.5%
	02/01/2020	Xenazine	+9.5%
	03/01/2020	Trintellix**	+5.0%
UCB	01/01/2020	Briviact	+3.0%
	01/01/2020	Cimzia	+7.0%
	01/01/2020	Keppra	+3.0%
	01/01/2020	Neupro	+4.9%
	01/01/2020	Vimpat	+3.0%

Source: Jefferies and PriceRx as of 6 January 2020. Note: *price set by RedHill; **price set by Takeda

2020 Catalyst Calendars

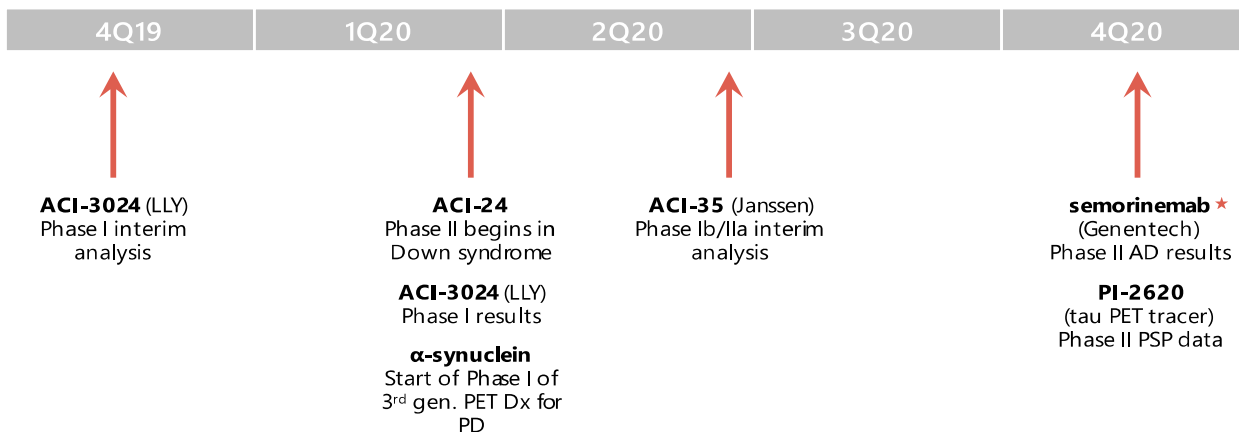
Our catalyst charts highlight potential upcoming share price triggers for the stocks under coverage. We have included both biotech and the larger biopharma companies.

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Exhibit 16 - AC Immune Catalysts

AC Immune

Near-term catalysts

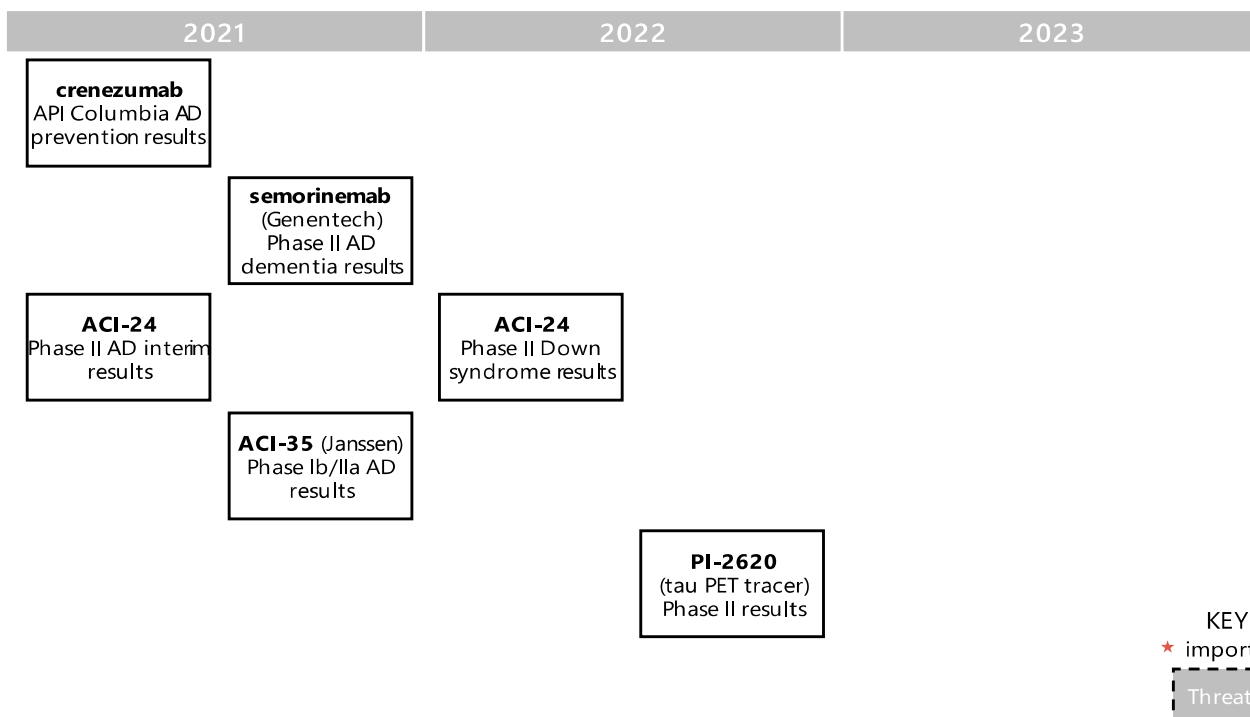


Morphomer and SupraAntigen platforms * important
Potential collaborations and out-licensing deals for therapeutics and/or diagnostics

KEY
* important
Threats

AC Immune

Mid-term catalysts



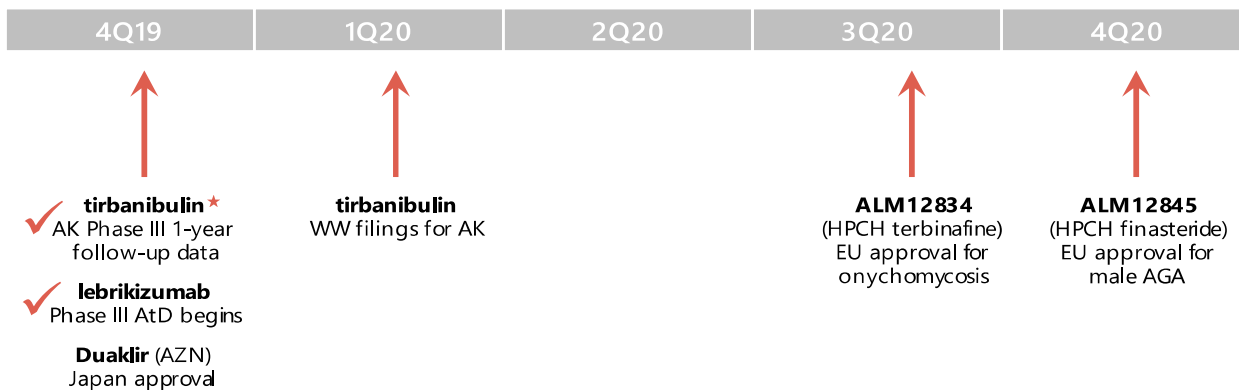
Jefferies

Source: Jefferies research

Exhibit 17 - Almirall Catalysts

Almirall

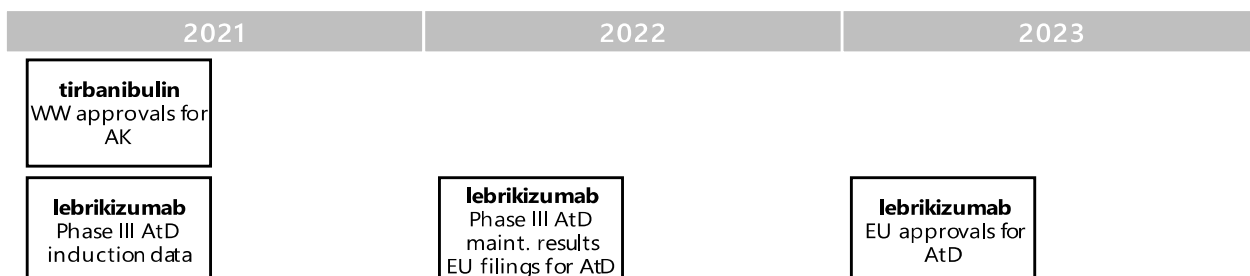
Near-term catalysts



Potential acquisitions of dermatology assets KEY
* important
Threats

Almirall

Mid-term catalysts

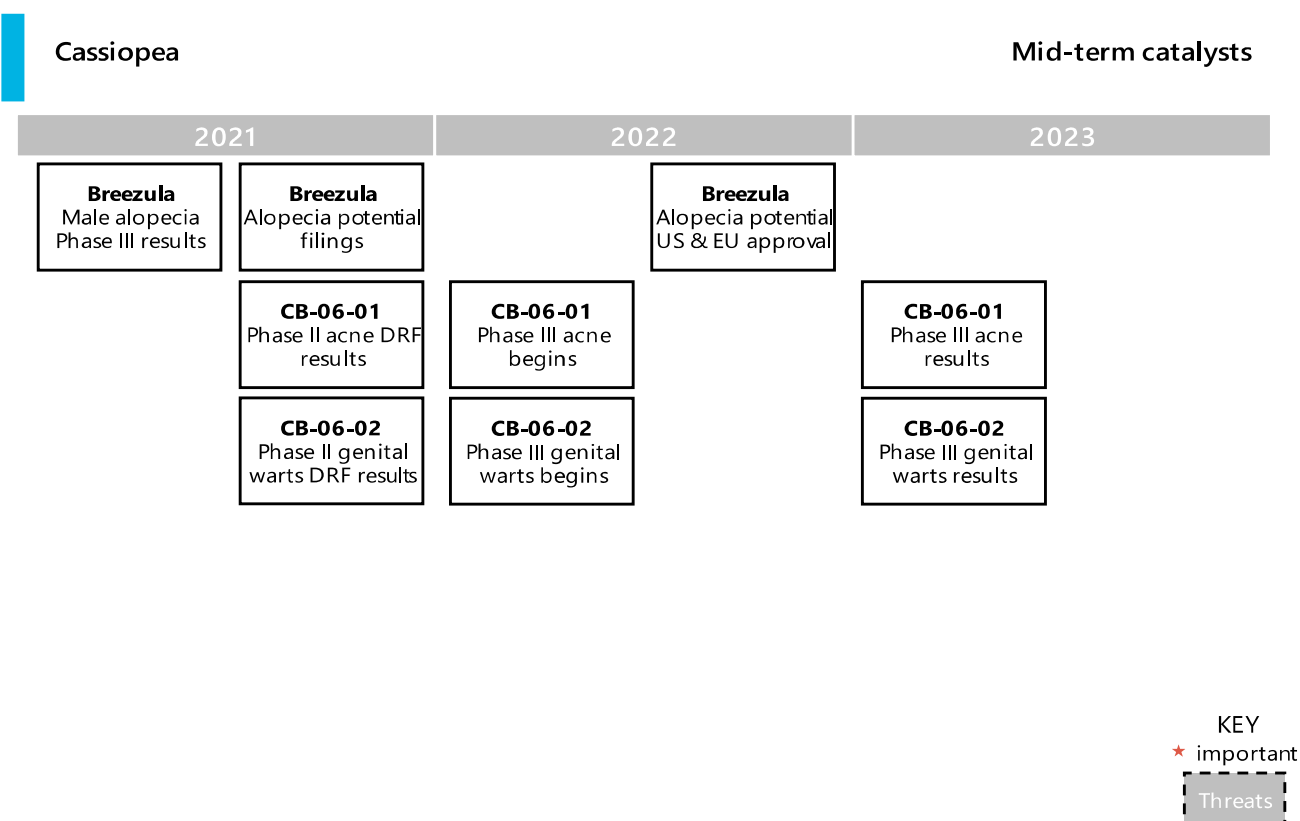
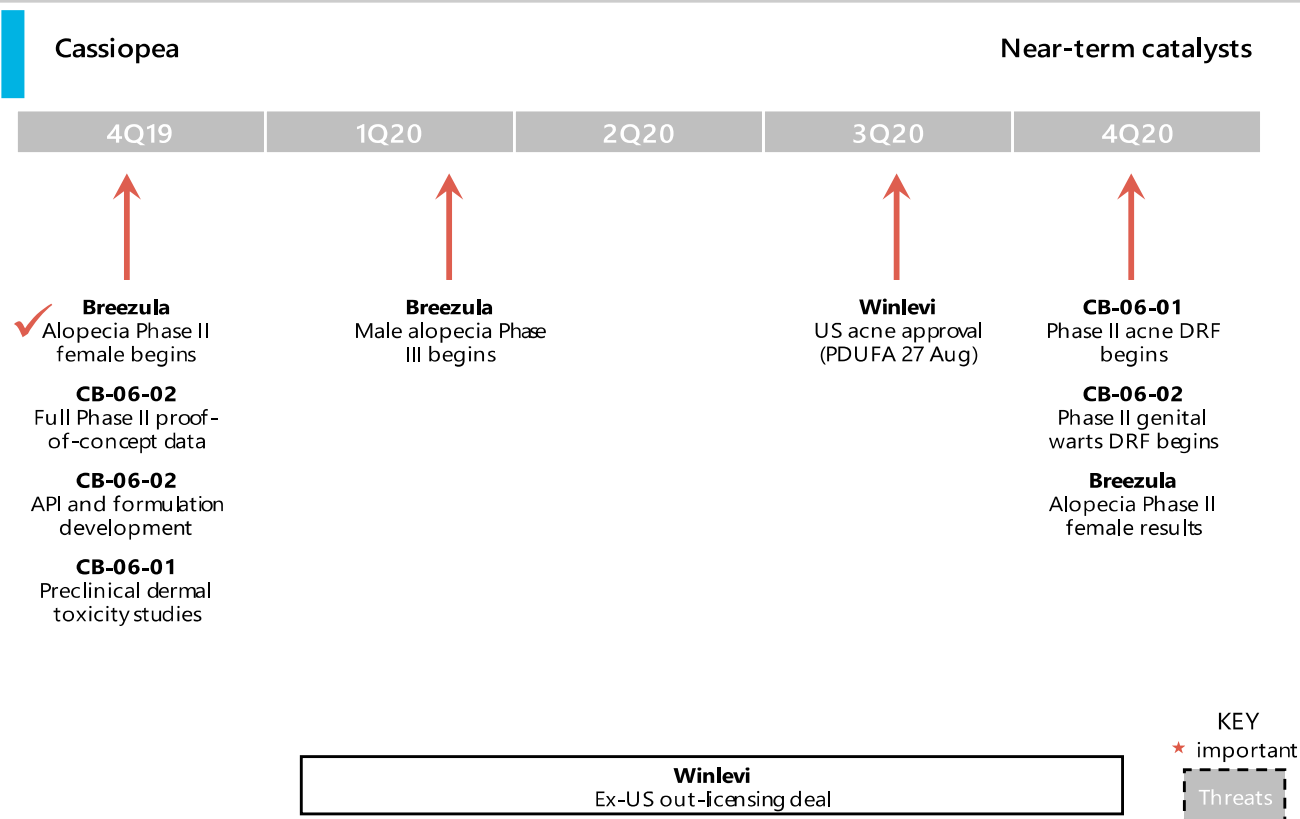


KEY
* important
Threats

Jefferies

Source: Jefferies

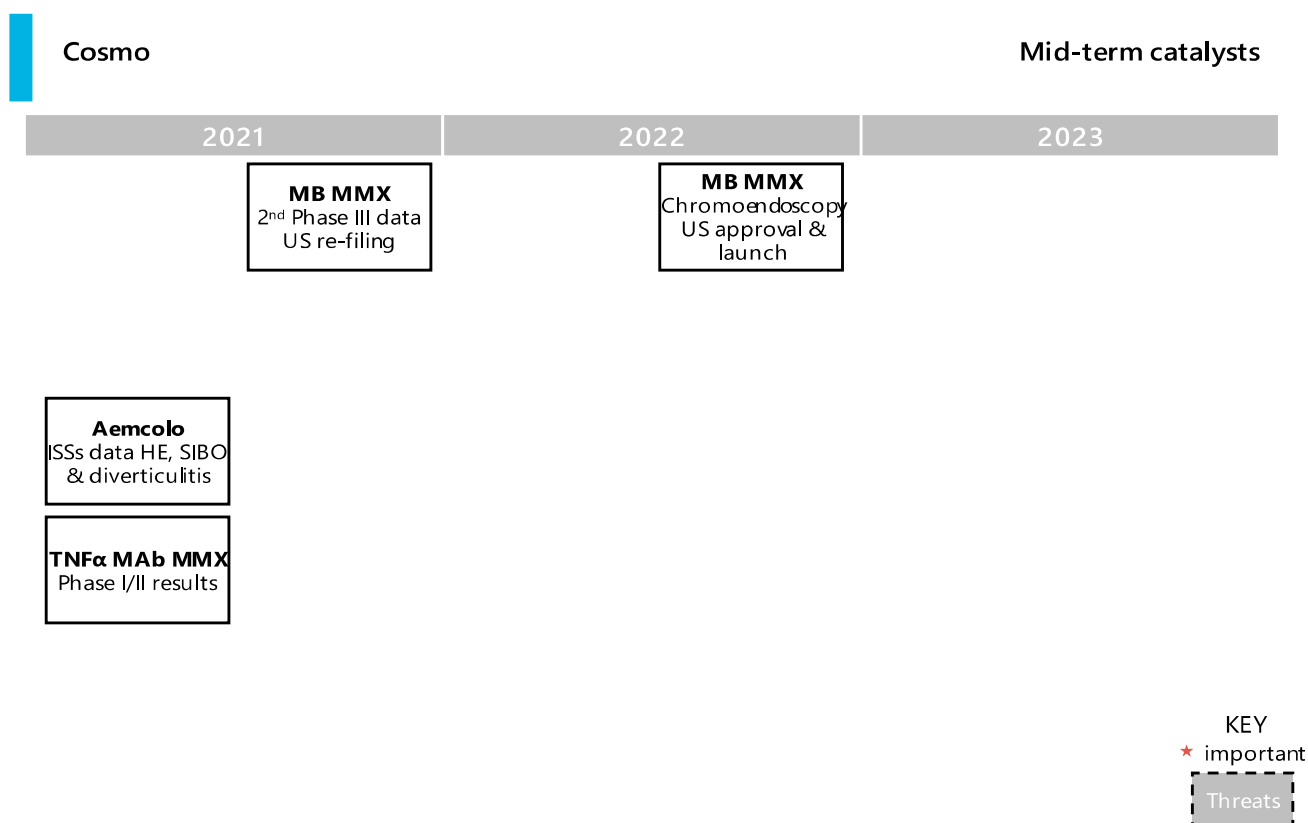
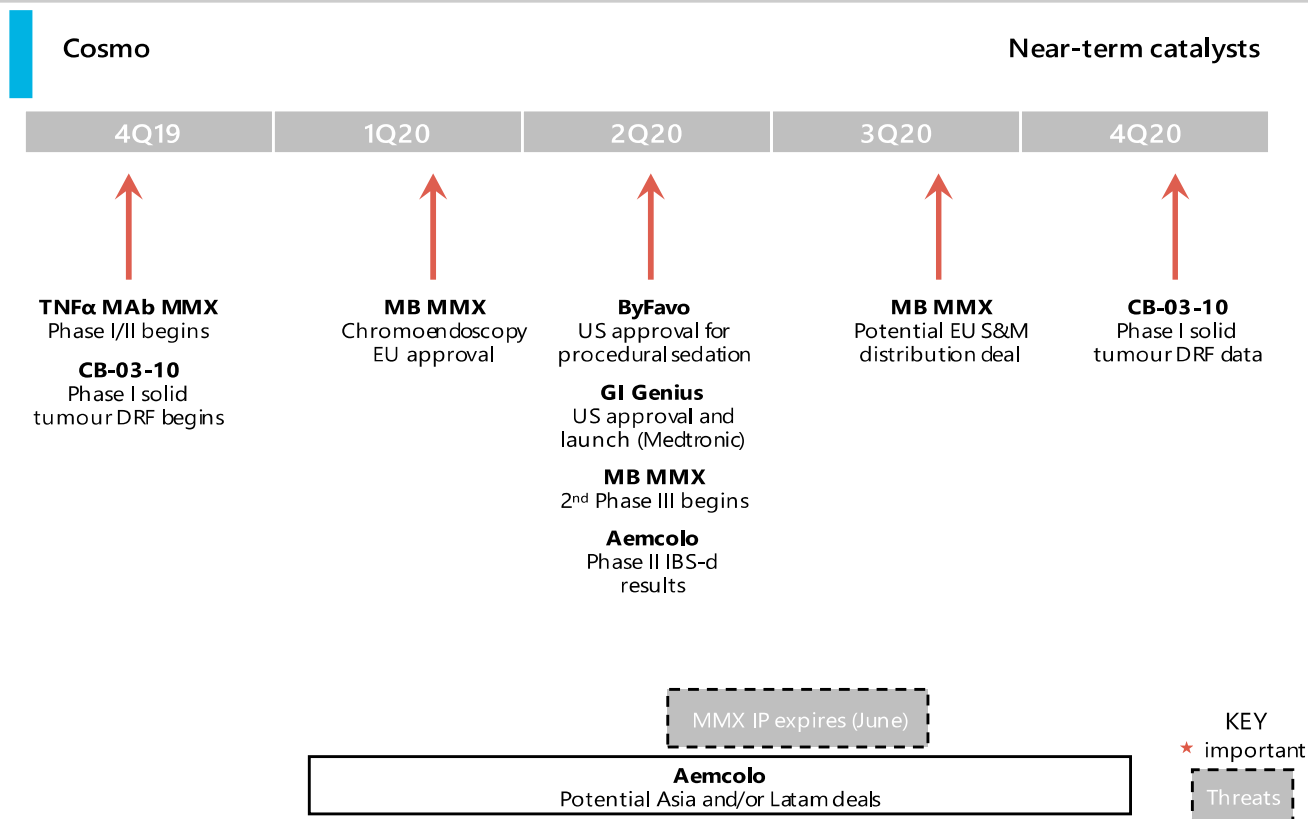
Exhibit 18 - Cassiopea catalysts



Jefferies

Source: Jefferies research

Exhibit 19 - Cosmo catalysts



Jefferies

Source: Jefferies

Exhibit 20 - Erytech catalysts

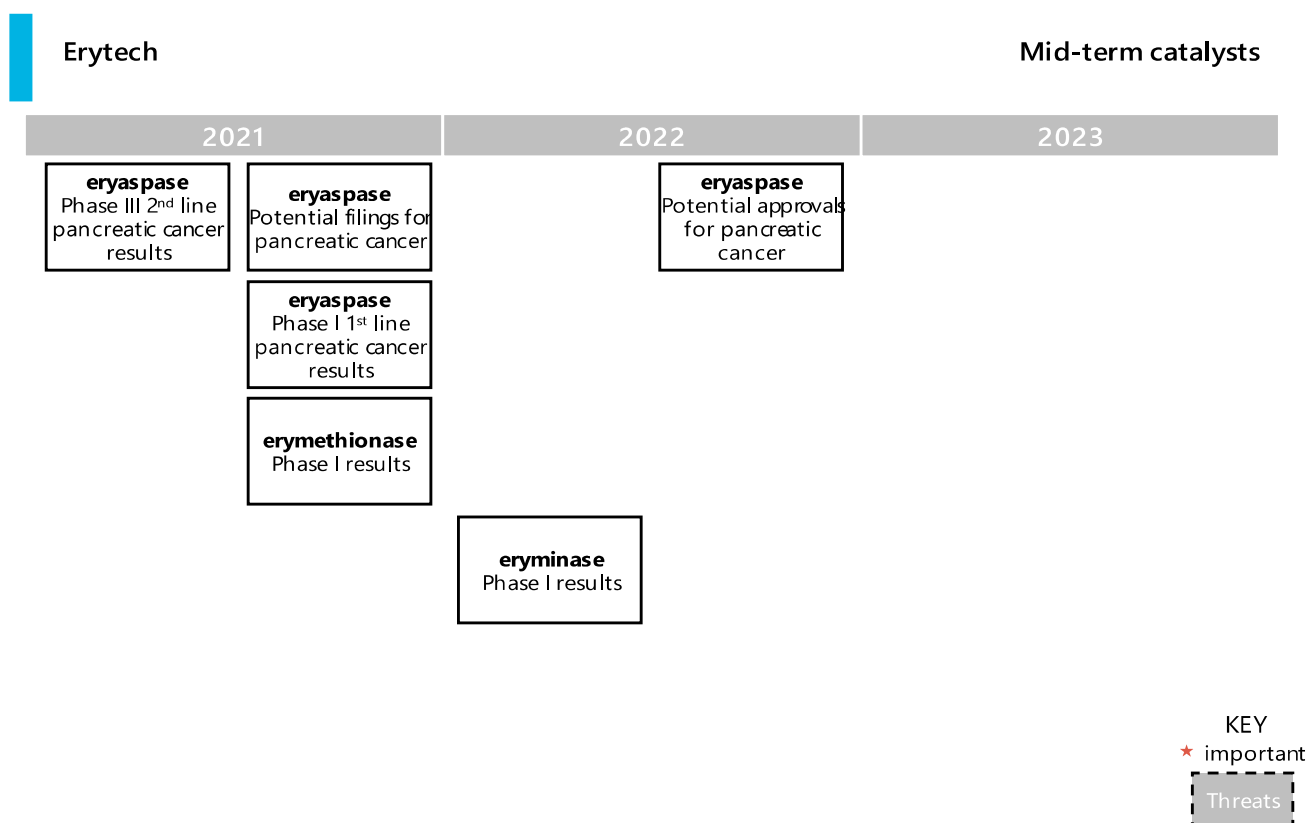
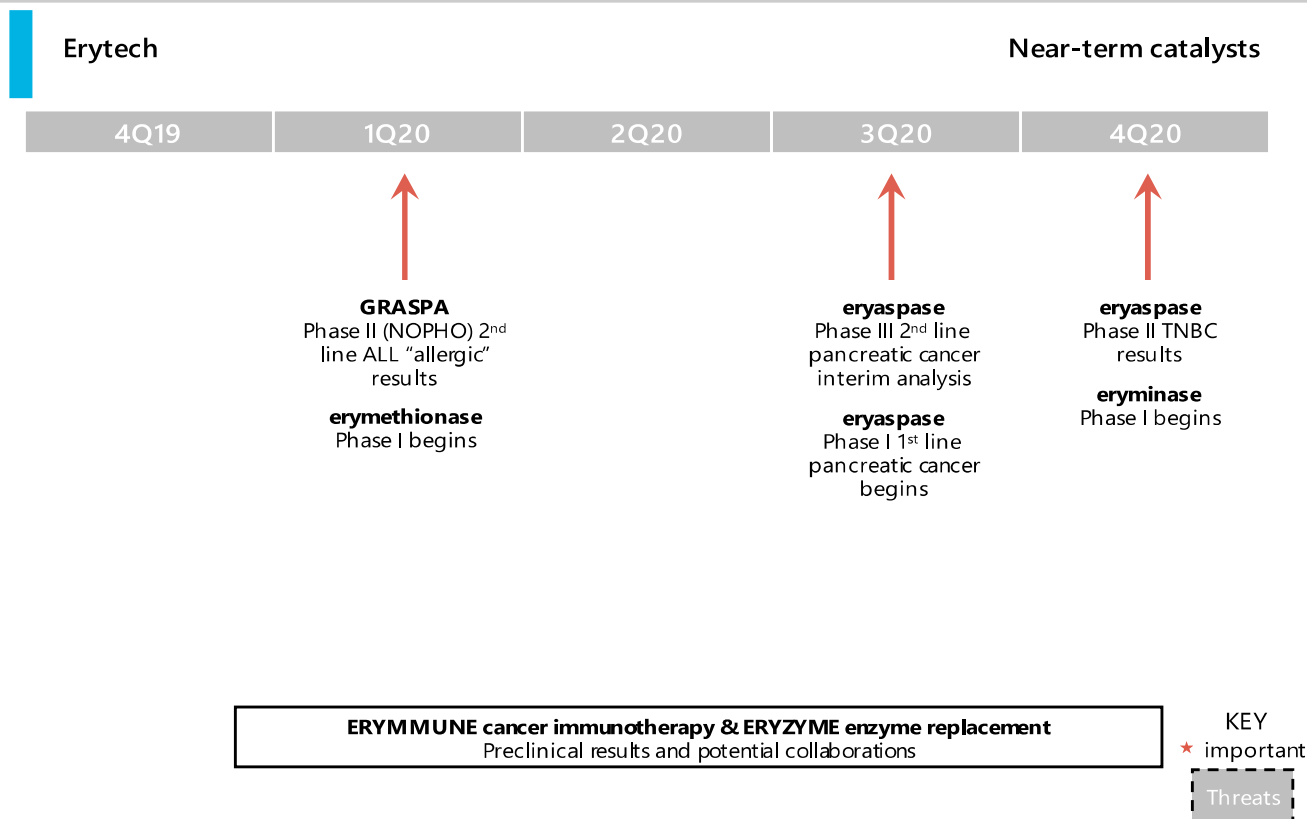


Exhibit 21 - Galapagos catalysts

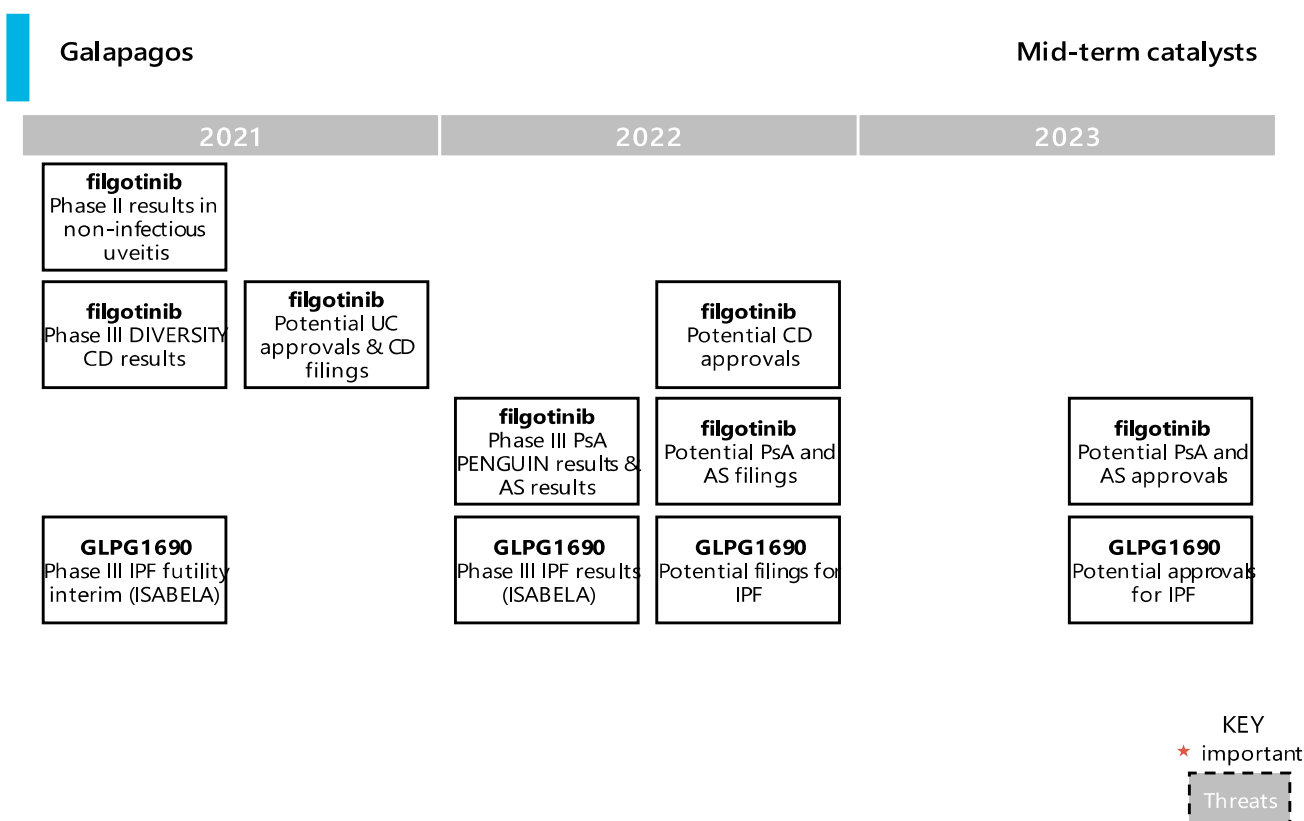
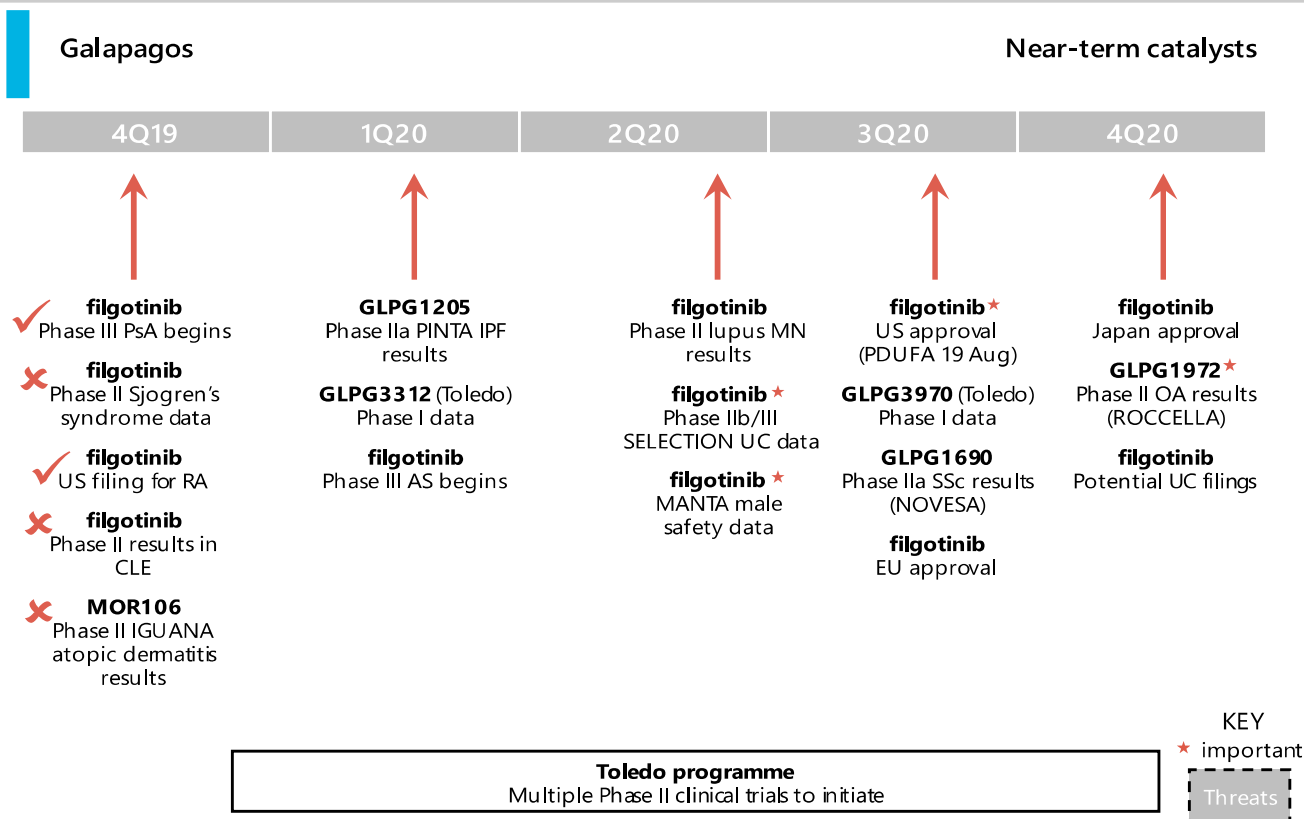
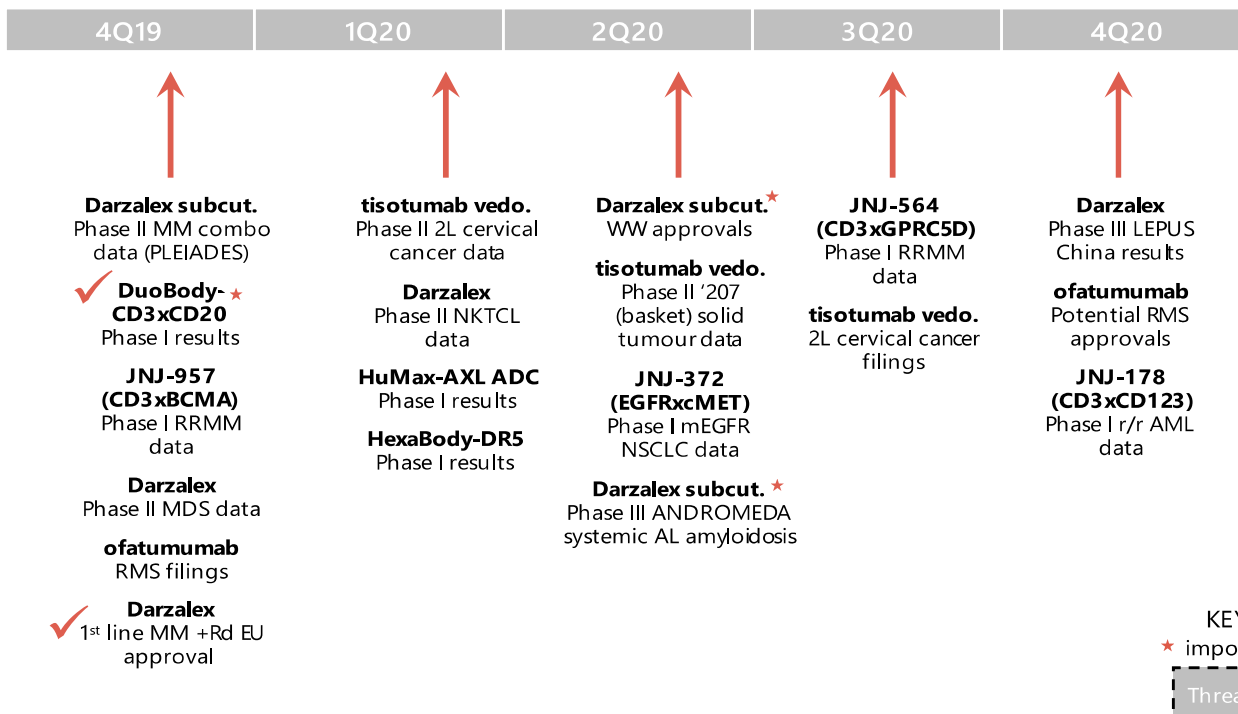


Exhibit 22 - Genmab Catalysts

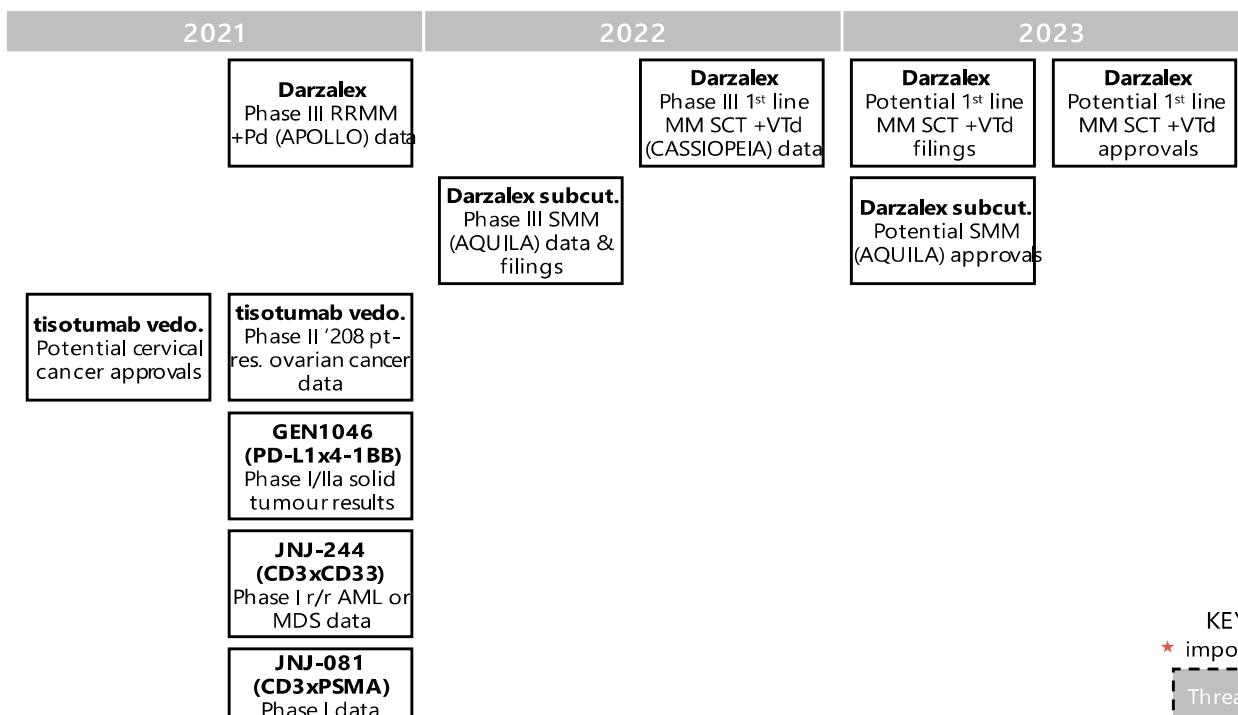
Genmab

Near-term catalysts



Genmab

Mid-term catalysts



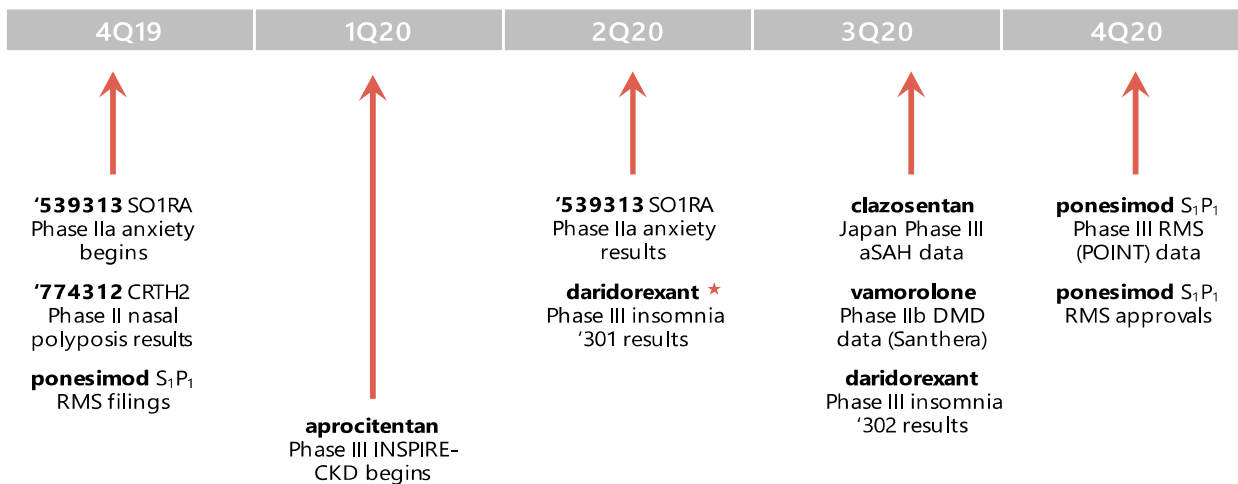
Jefferies

Source: Jefferies

Exhibit 23 - Idorsia catalysts

Idorsia

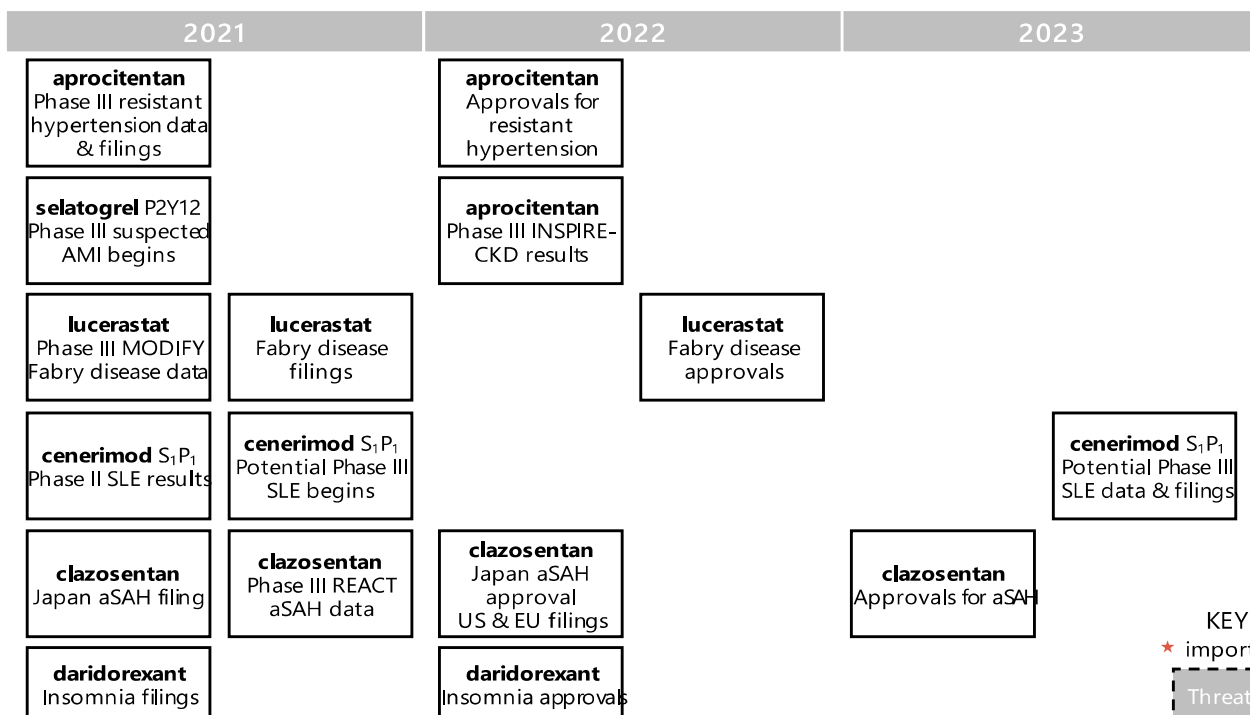
Near-term catalysts



KEY
* important
Threats

Idorsia

Mid-term catalysts

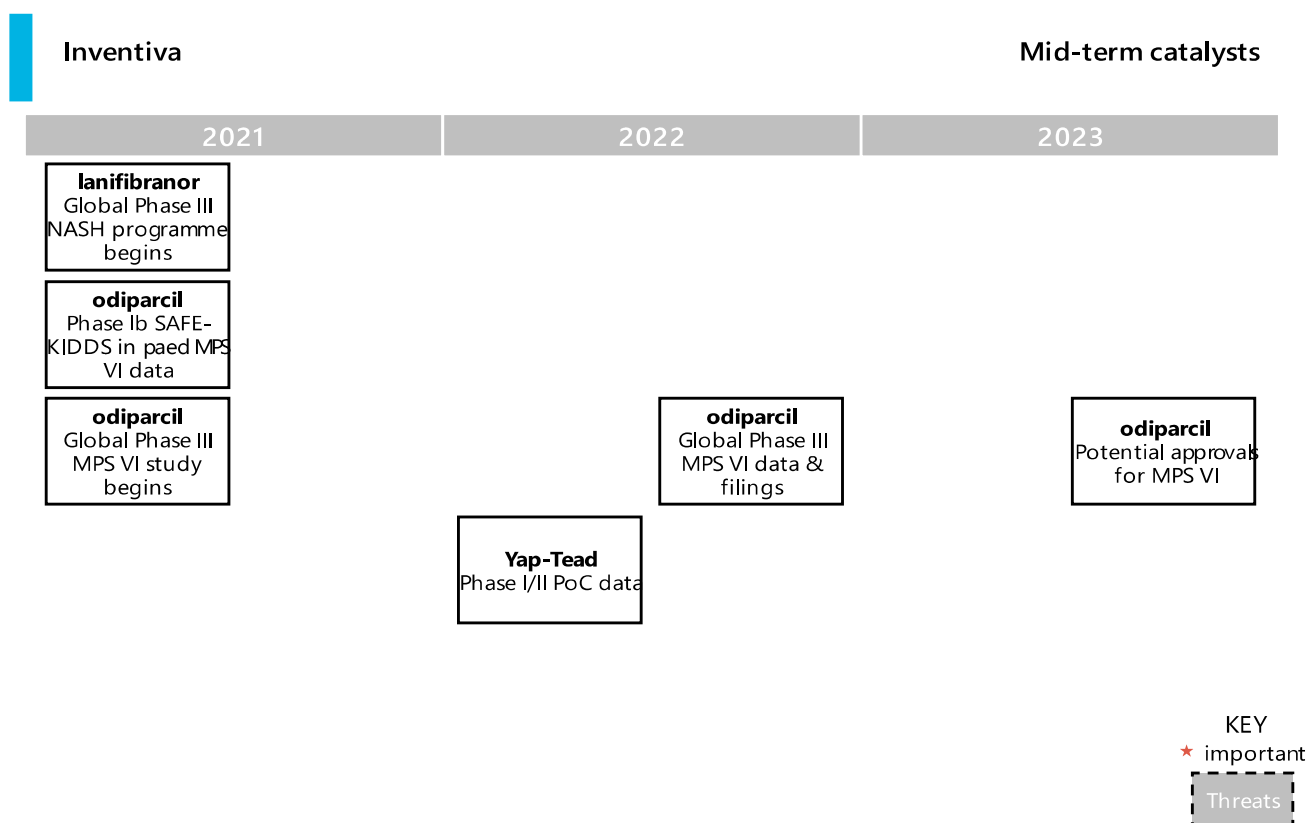
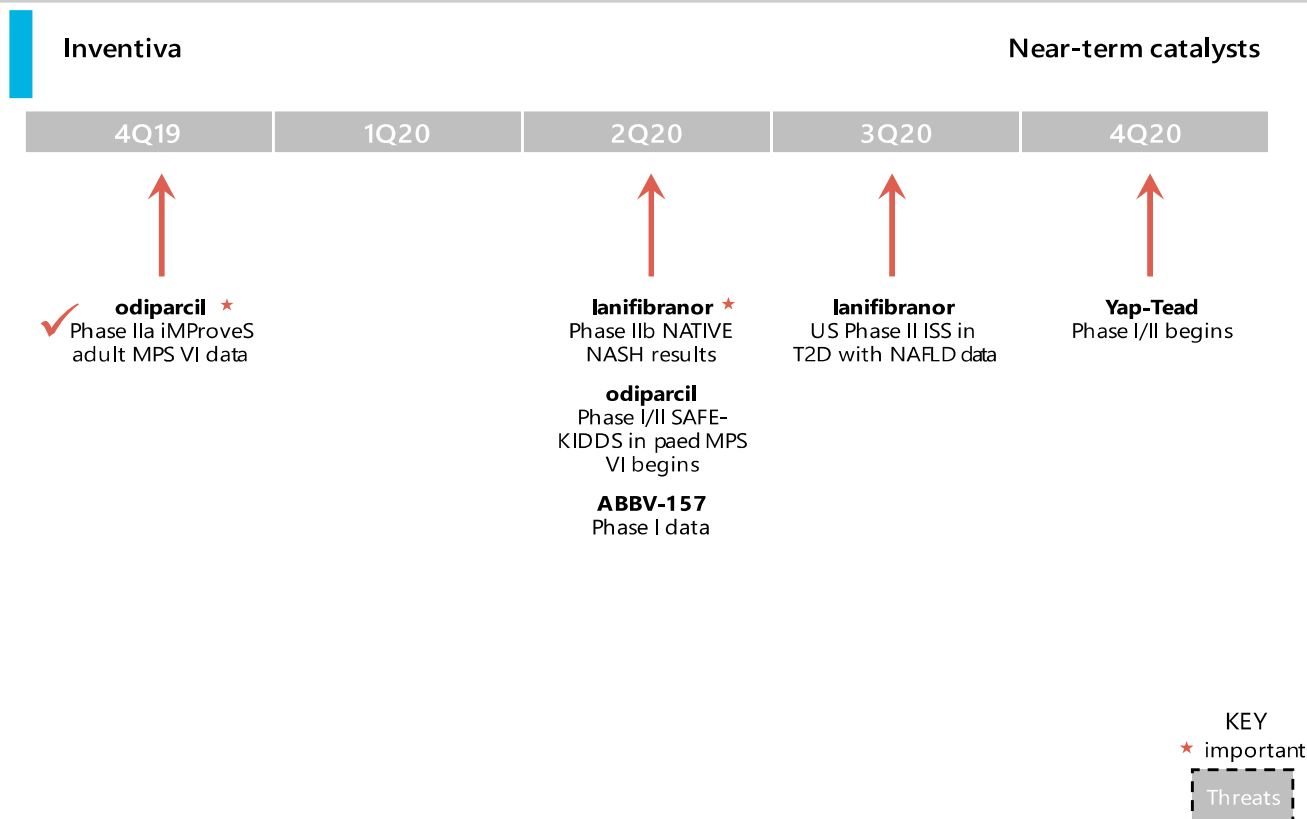


KEY
* important
Threats

Jefferies

Source: Jefferies research

Exhibit 24 - Inventiva Catalysts



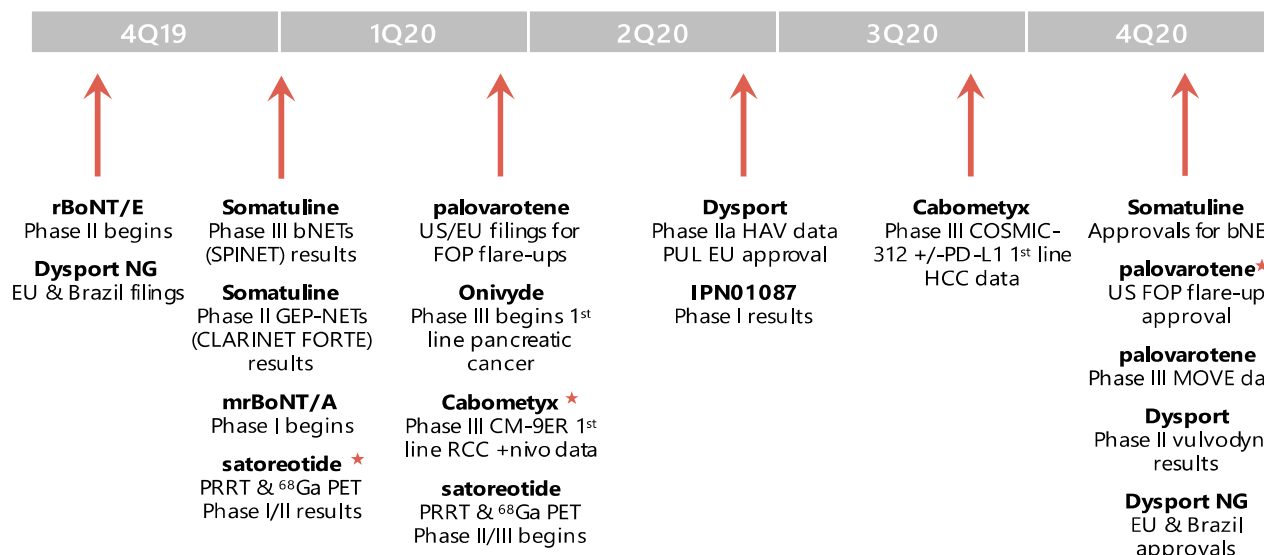
Jefferies

Source: Jefferies

Exhibit 25 - Ipsen Catalysts

Ipsen

Near-term catalysts



KEY

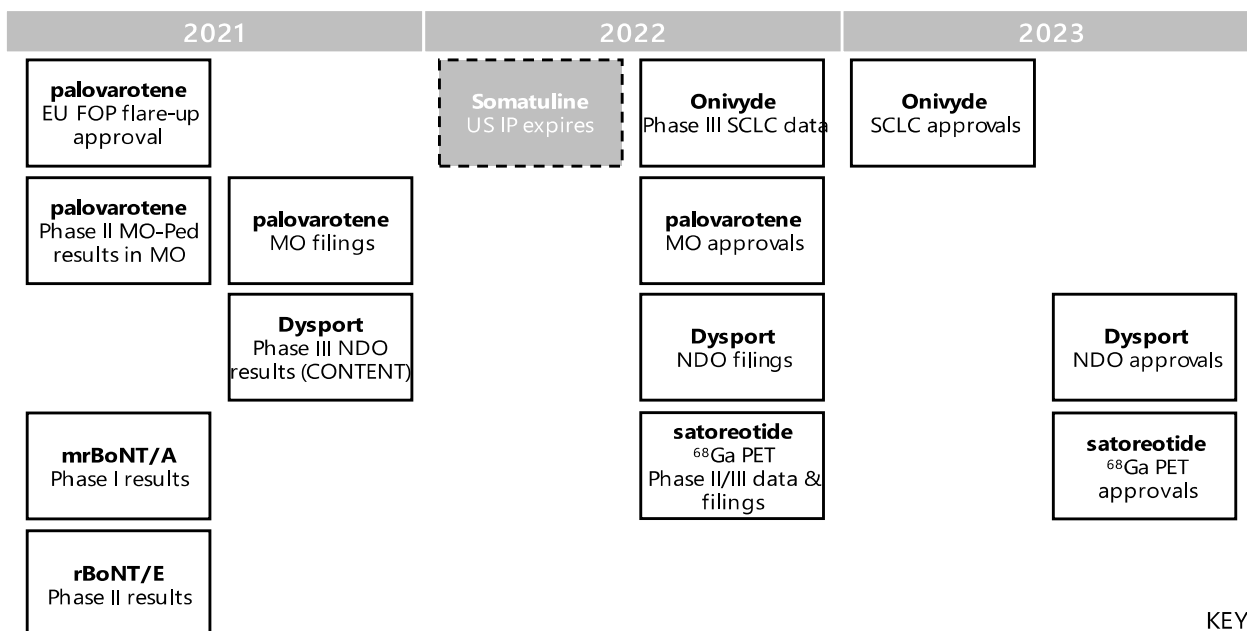
★ important

Potential Sandostatin LAR WW generics

Threats

Ipsen

Mid-term catalysts



KEY

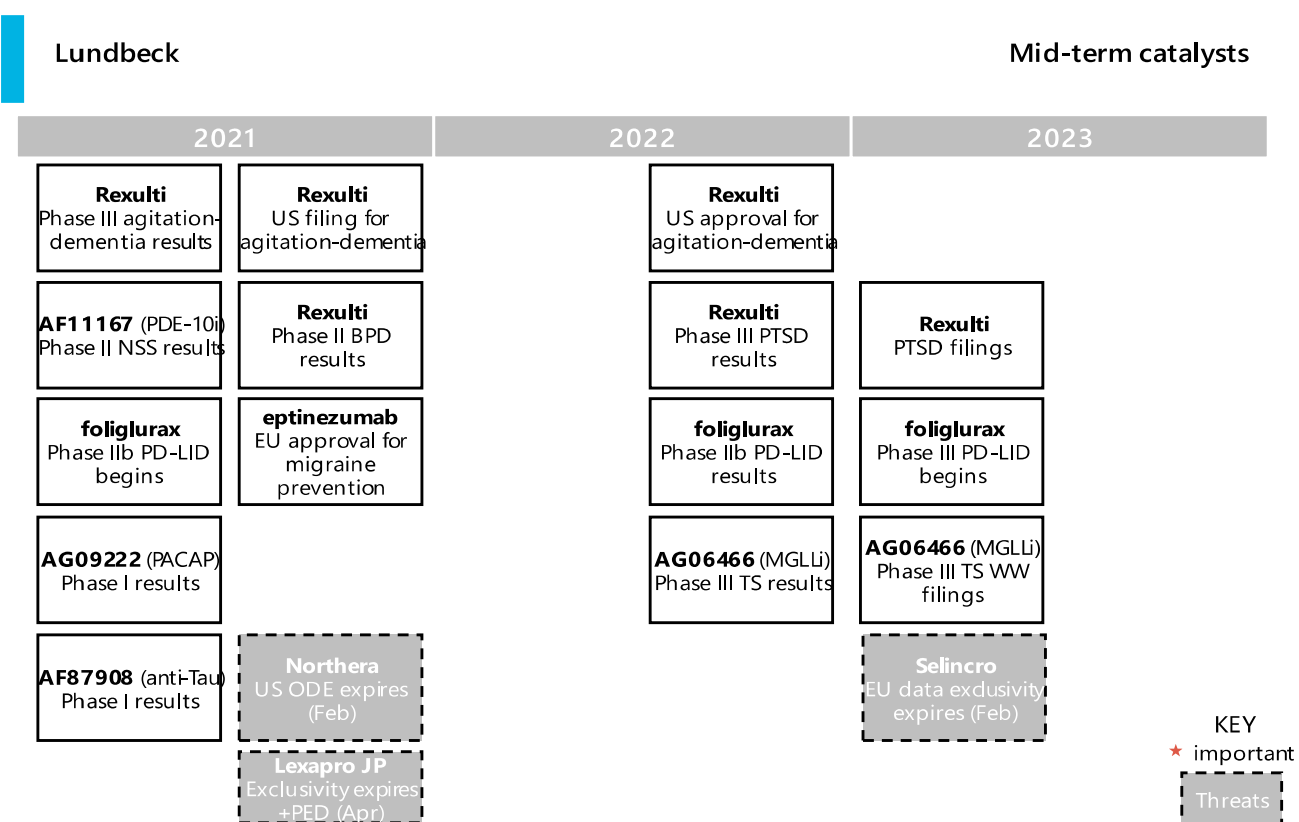
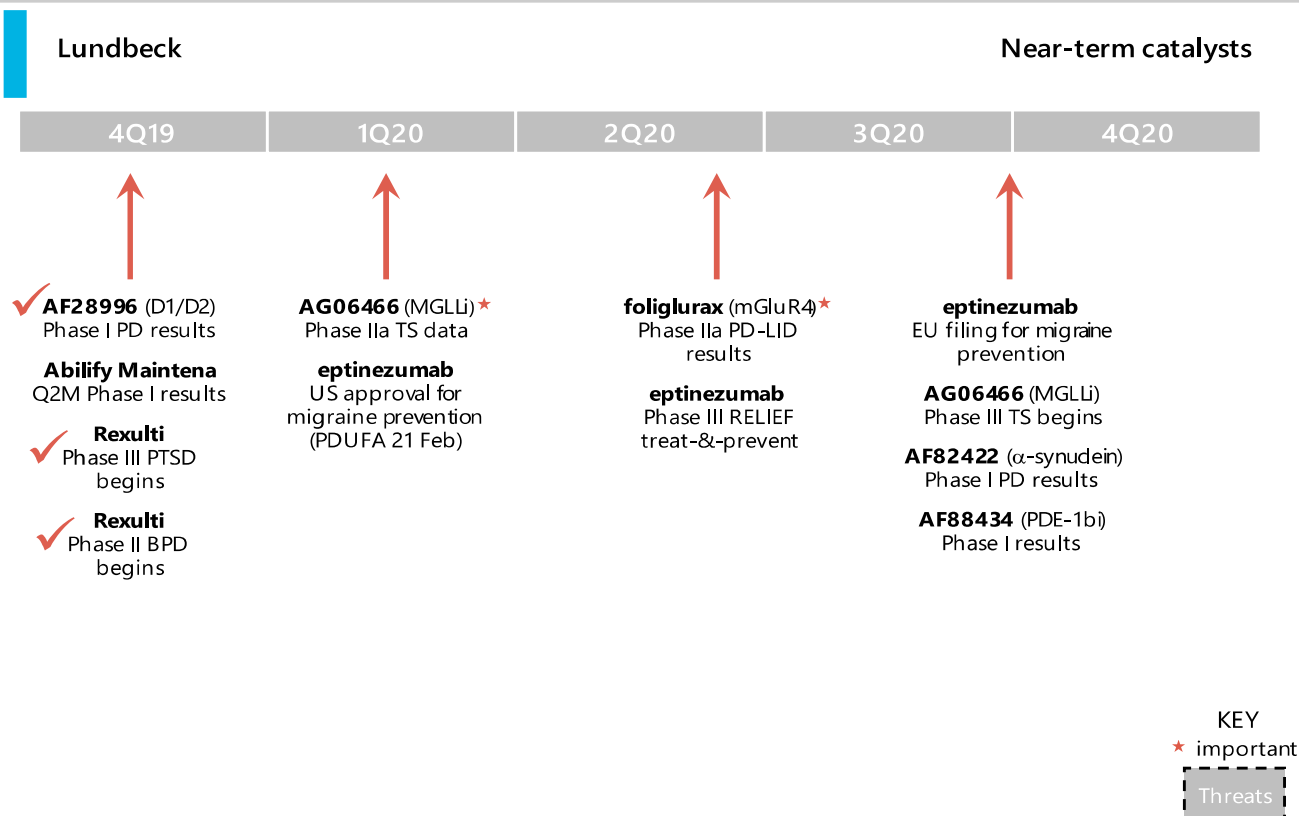
★ important

Threats

Jefferies

Source: Jefferies

Exhibit 26 - Lundbeck Catalysts



Jefferies

Source: Jefferies

Exhibit 27 - Nanobiotix Catalysts

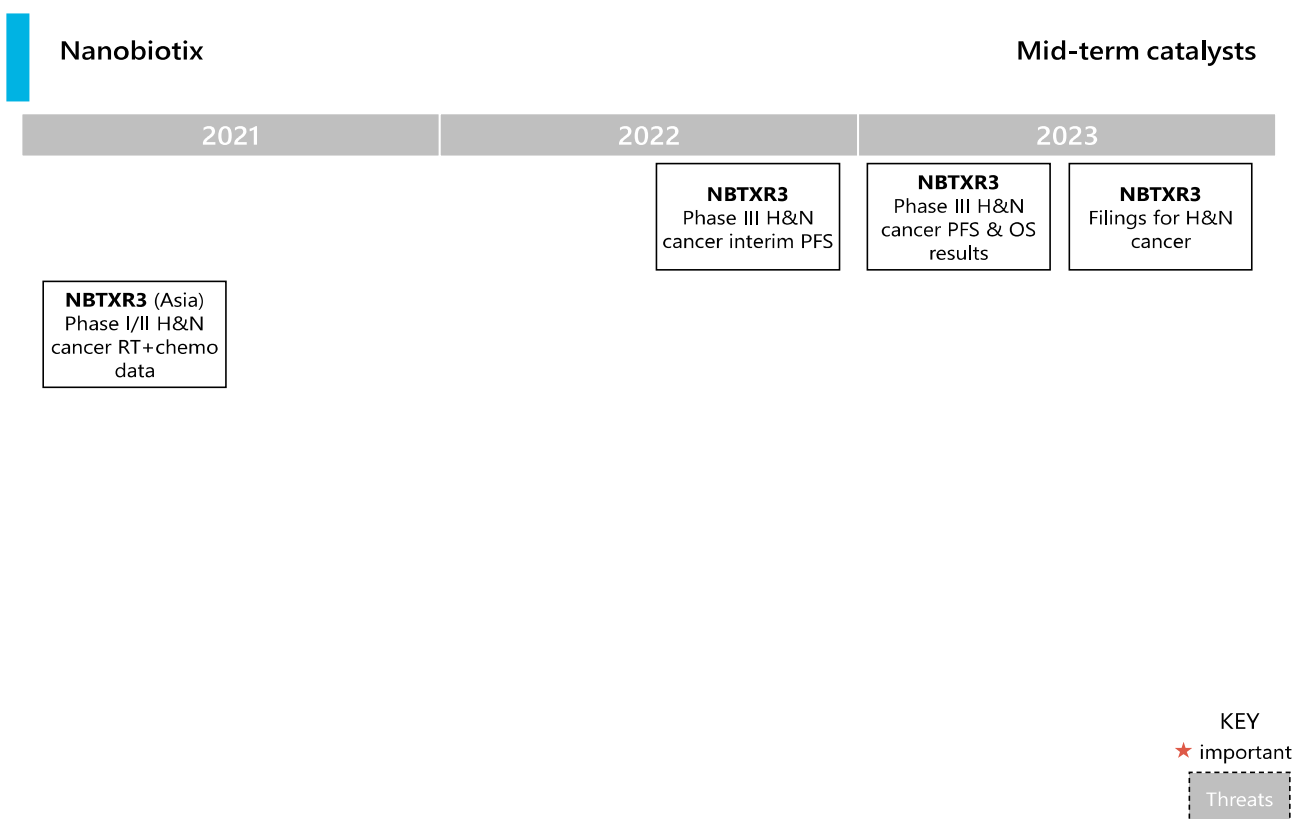
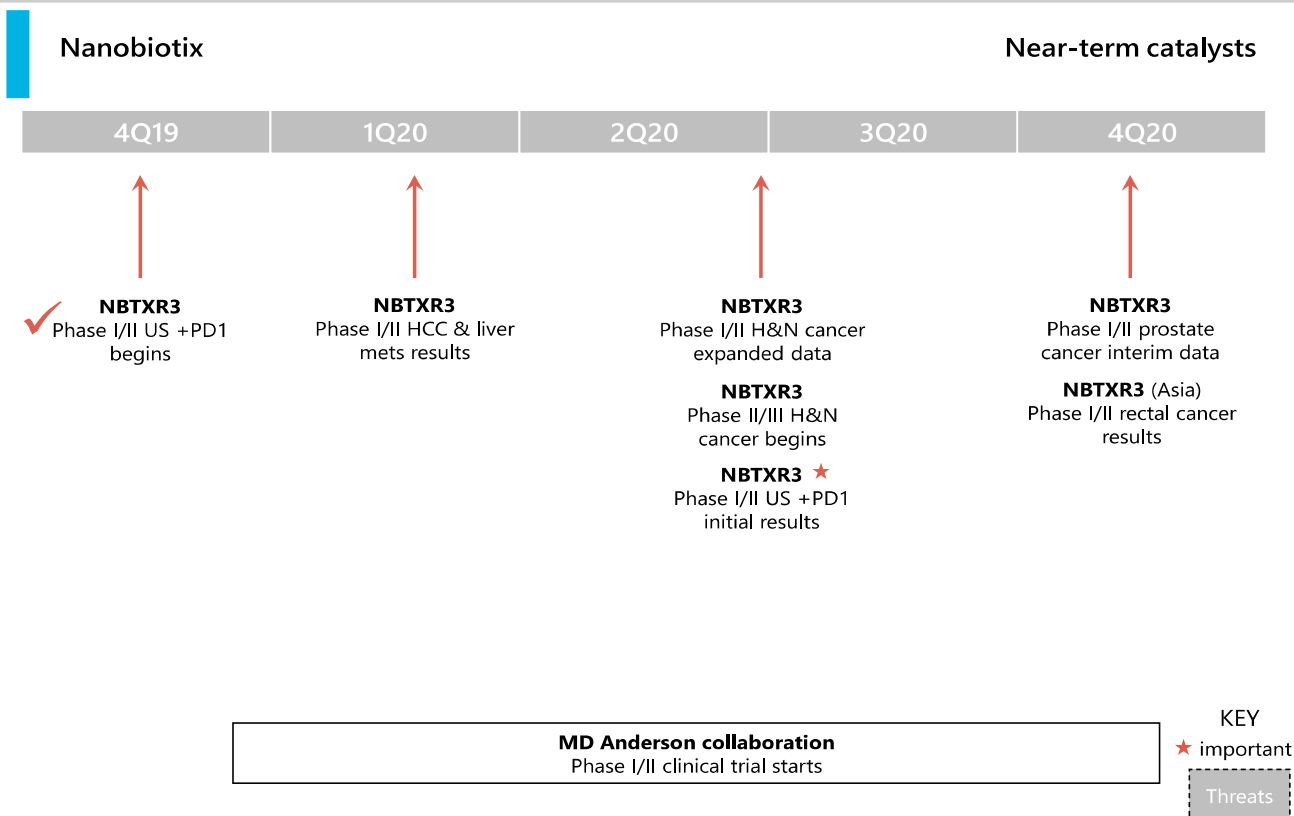
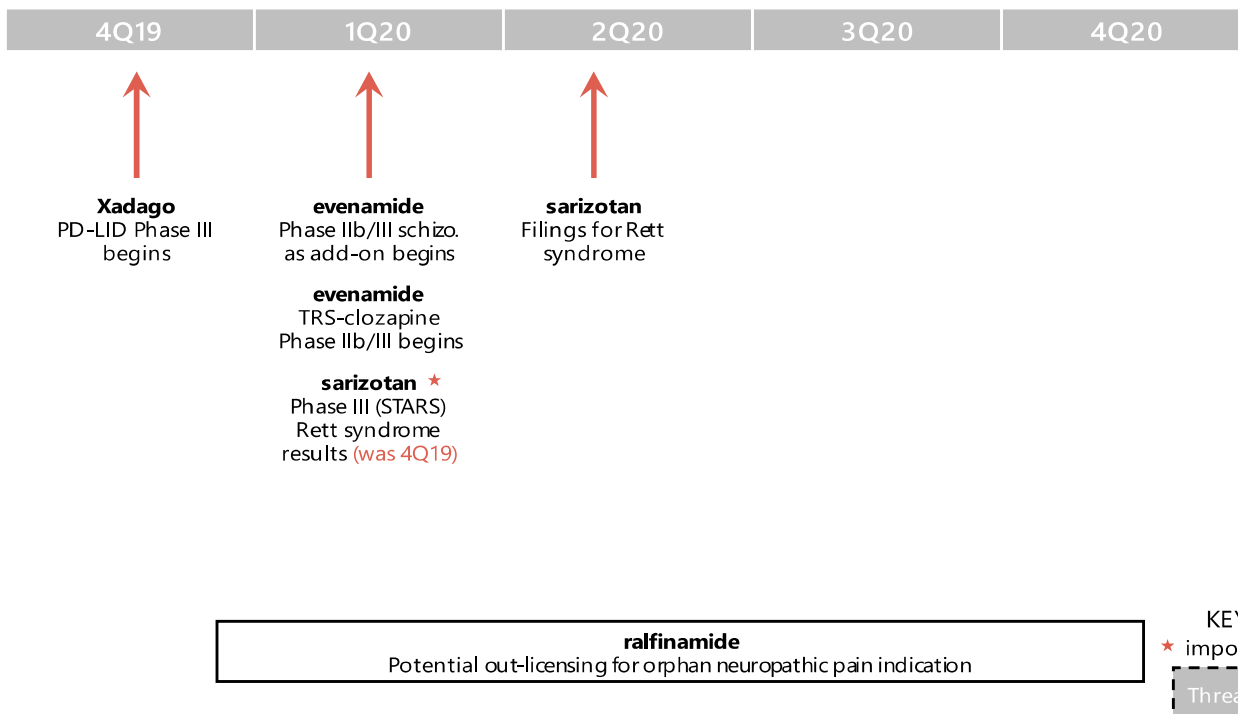


Exhibit 28 - Newron catalysts

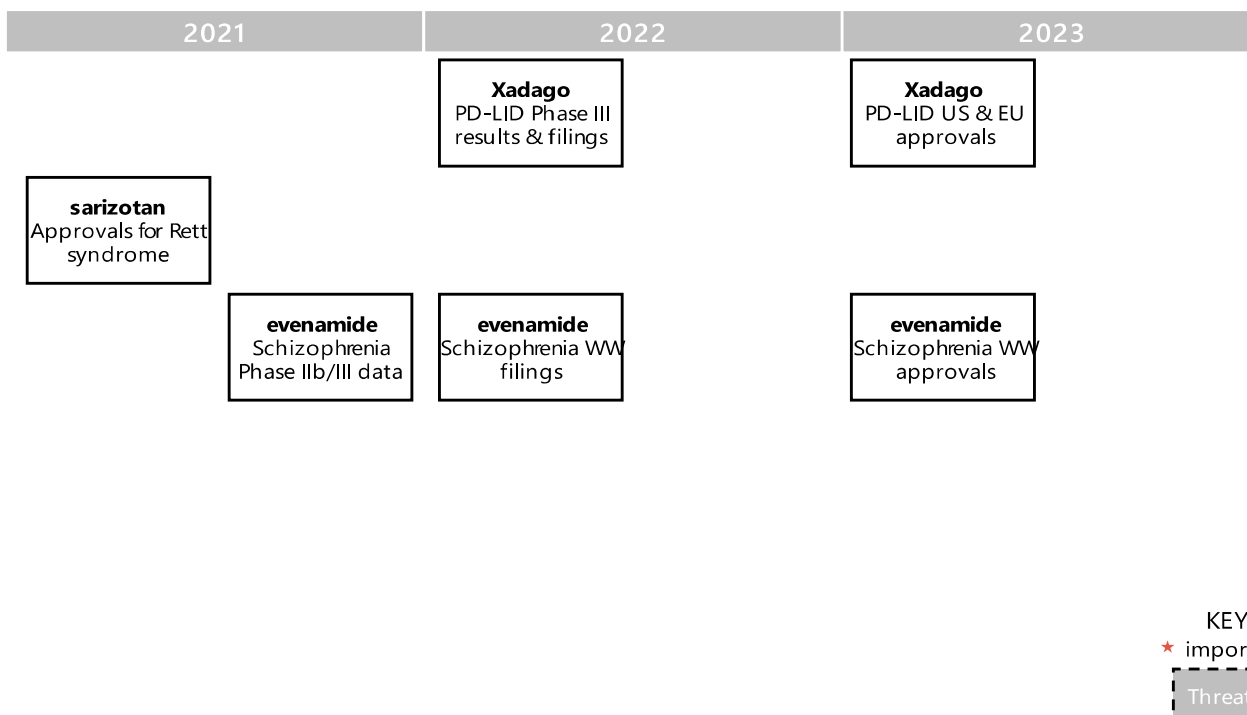
Newron

Near-term catalysts



Newron

Mid-term catalysts



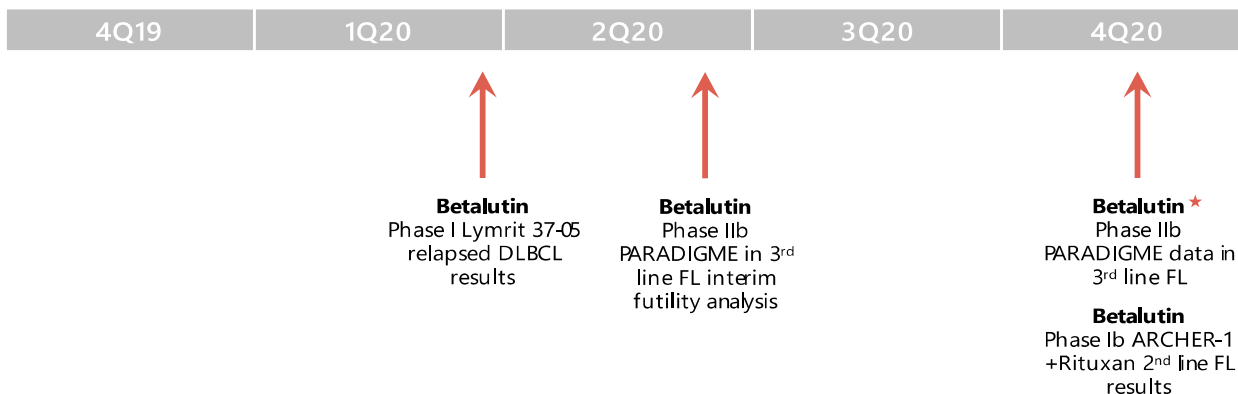
Jefferies

Source: Jefferies research

Exhibit 29 - Nordic Nanovector Catalysts

Nordic NanoVector

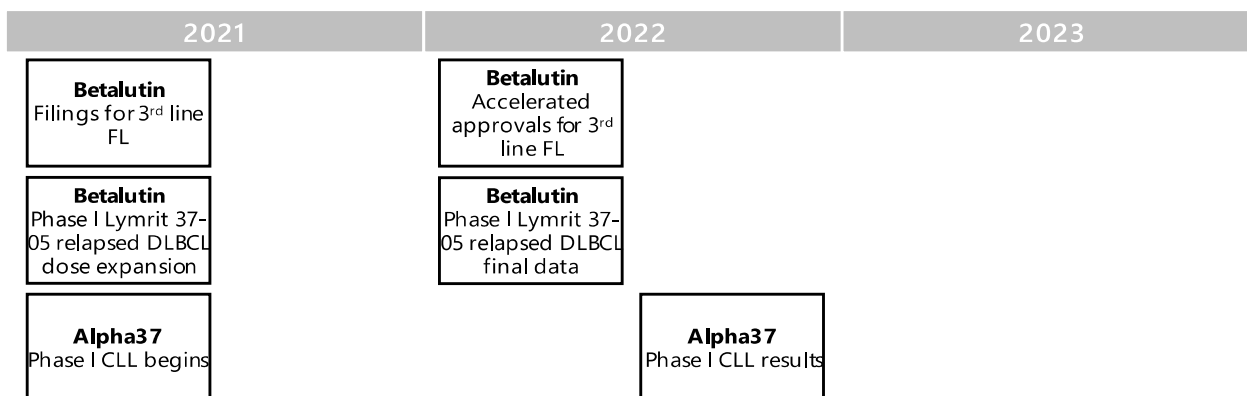
Near-term catalysts



KEY
* important
Threats

Nordic NanoVector

Mid-term catalysts



KEY
* important
Threats

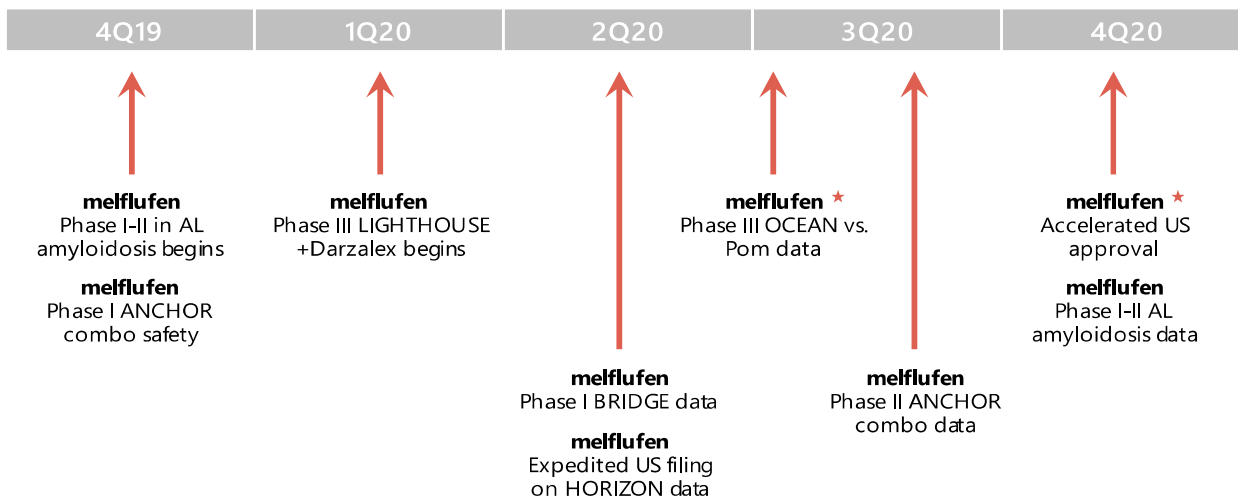
Jefferies

Source: Jefferies

Exhibit 30 - Oncopeptides Catalysts

Oncopeptides

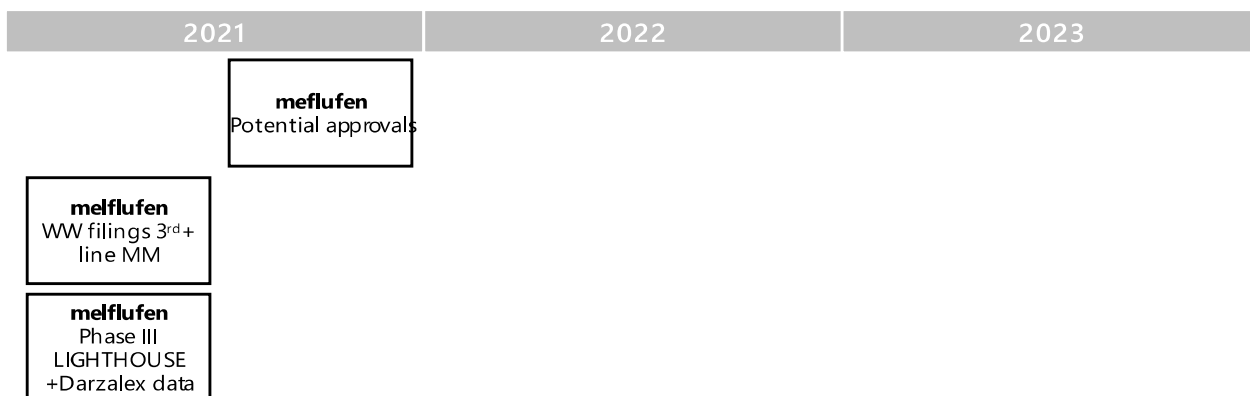
Near-term catalysts



KEY
* important
Threats

Oncopeptides

Mid-term catalysts



KEY
* important
Threats

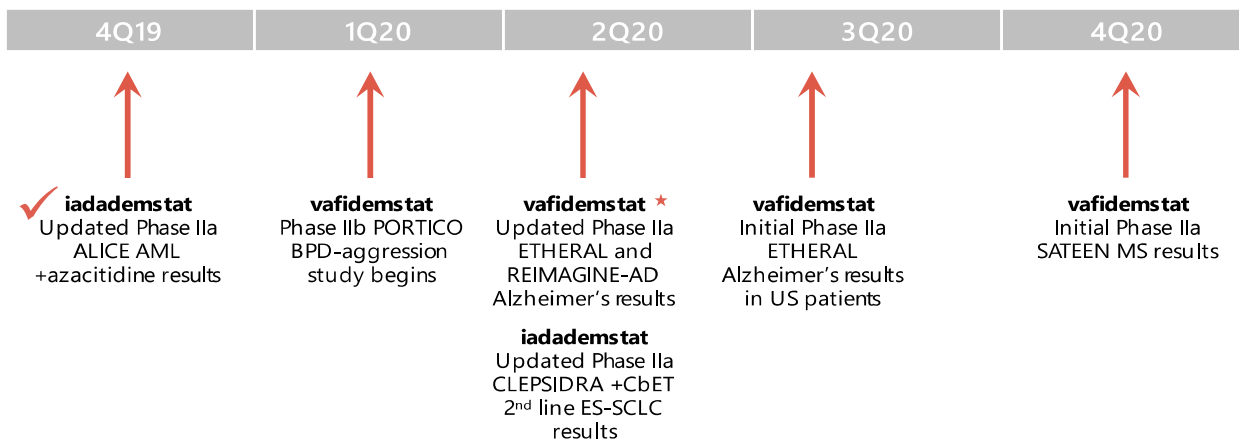
Jefferies

Source: Jefferies research

Exhibit 31 - Oryzon Catalysts

Oryzon

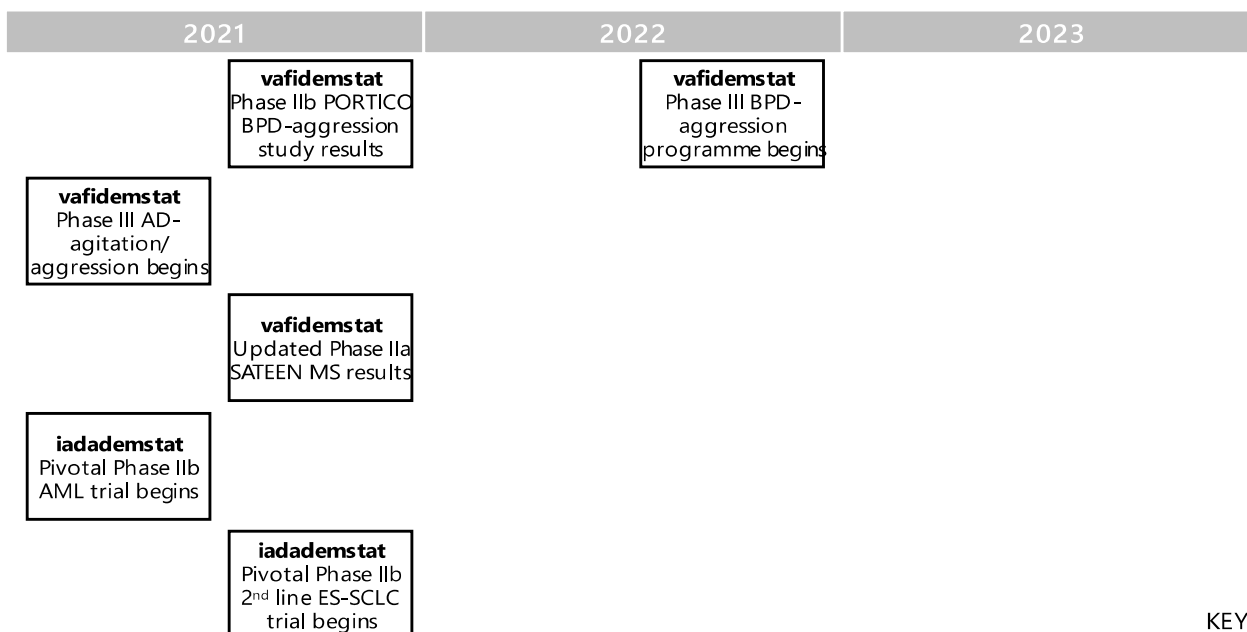
Near-term catalysts



KEY
* important
Threats

Oryzon

Mid-term catalysts



KEY
* important
Threats

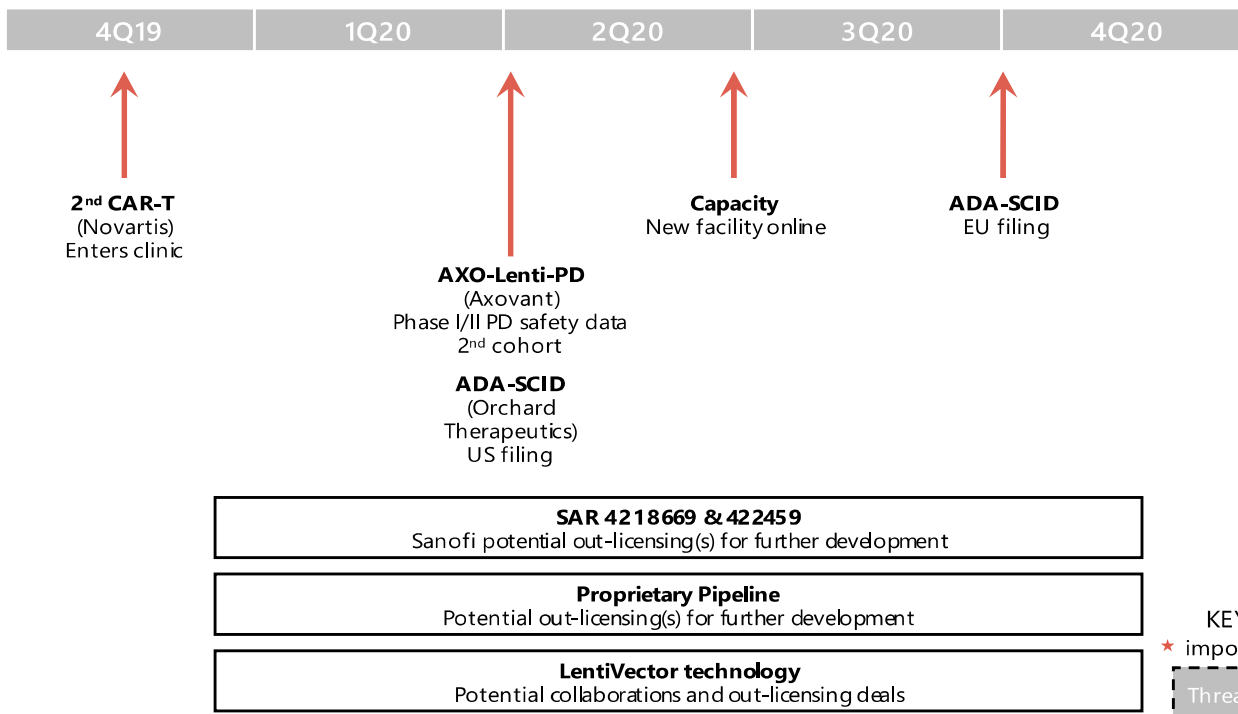
Jefferies

Source: Jefferies research

Exhibit 32 - Oxford Biomedica Catalysts

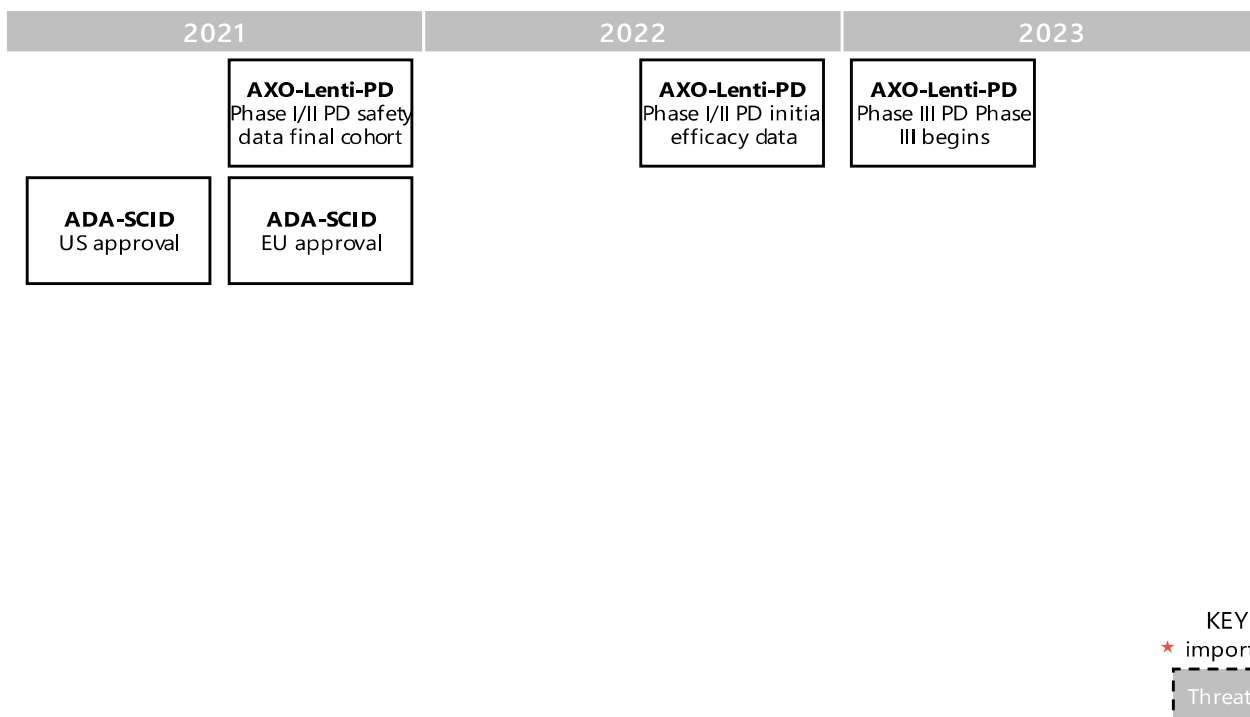
Oxford Biomedica

Near-term catalysts



Oxford Biomedica

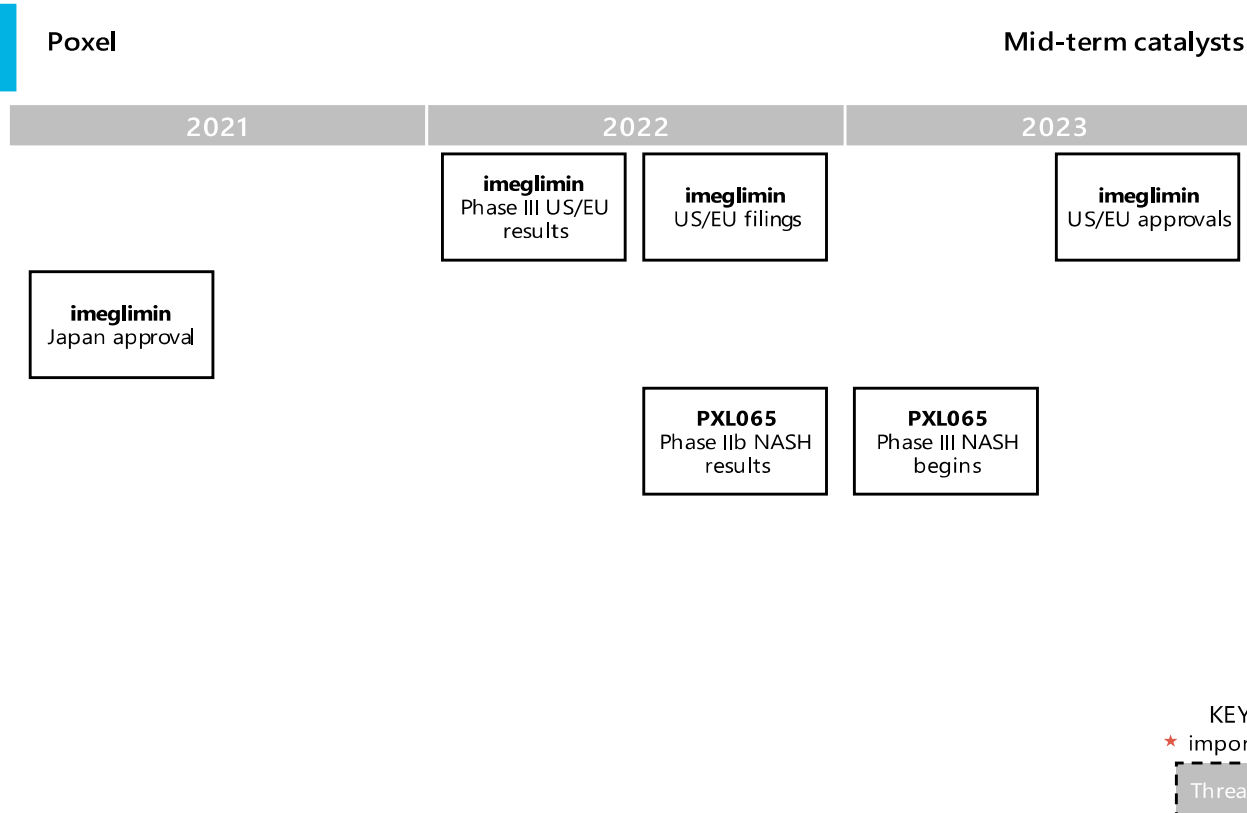
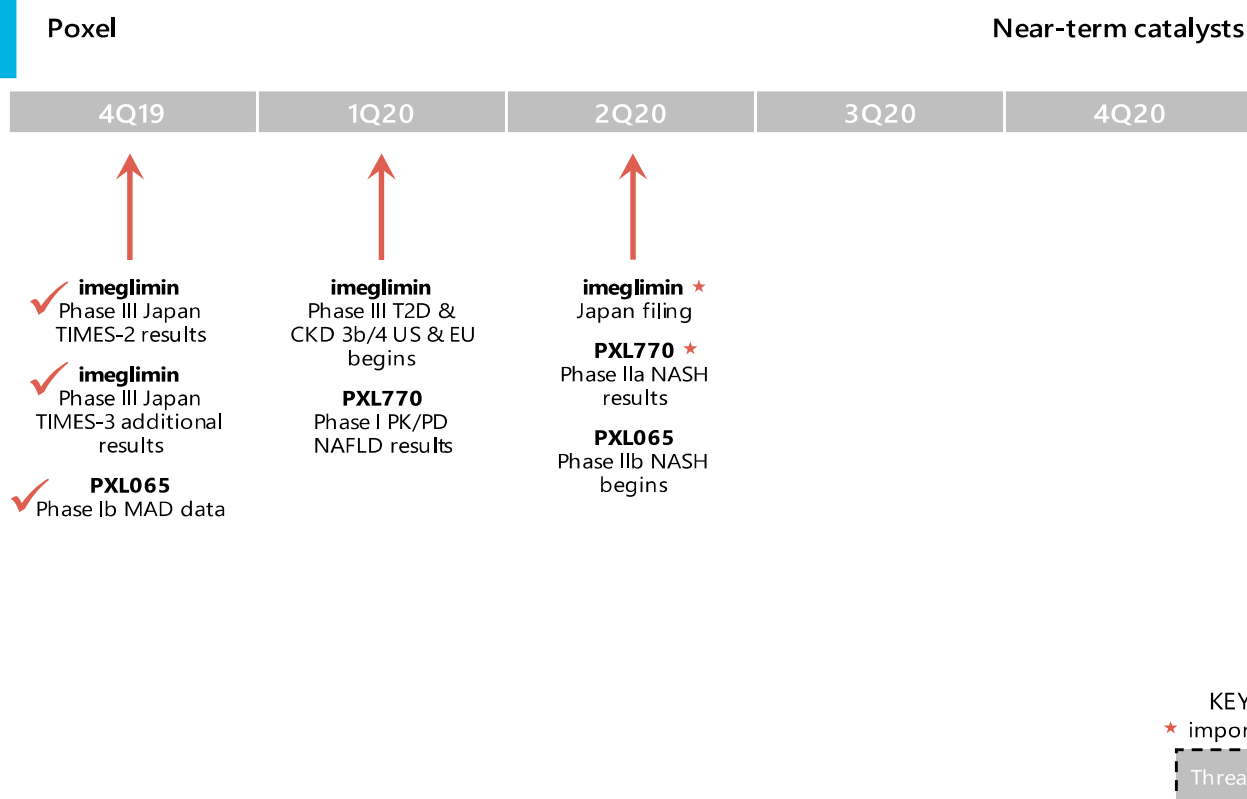
Mid-term catalysts



Jefferies

Source: Jefferies

Exhibit 33 - Poxel Catalysts



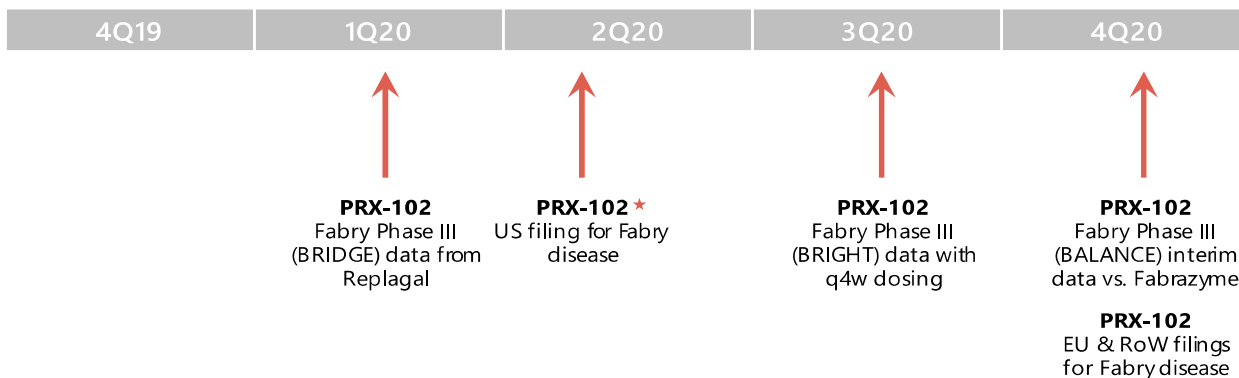
Jefferies

Source: Jefferies

Exhibit 34 - Protalix Catalysts

Protalix

Near-term catalysts

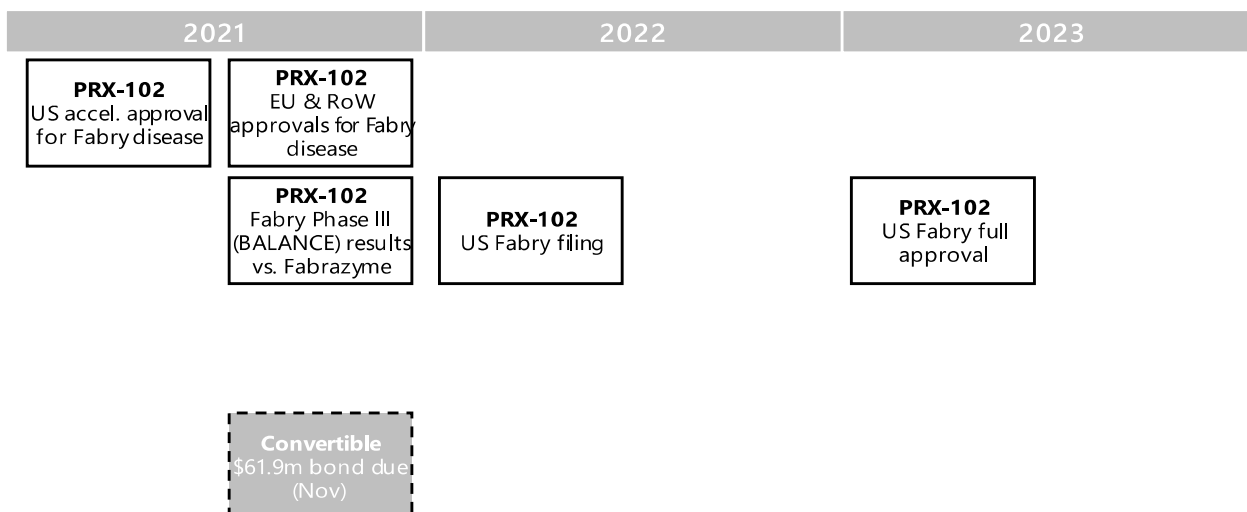


OPRX-106 & PRX-110
Potential out-licensing deals

KEY
* important
Threats

Protalix

Mid-term catalysts



KEY
* important
Threats

Jefferies

Source: Jefferies

Exhibit 35 - UCB Catalysts

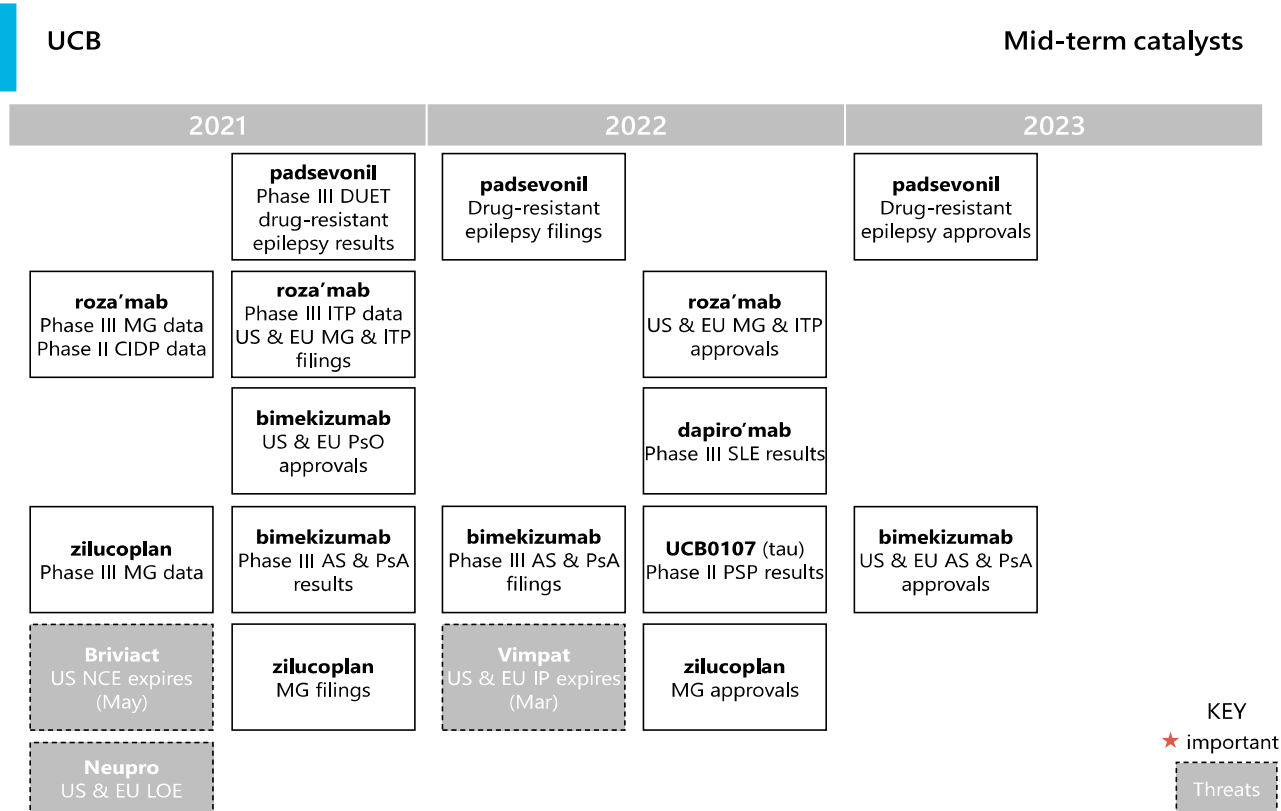
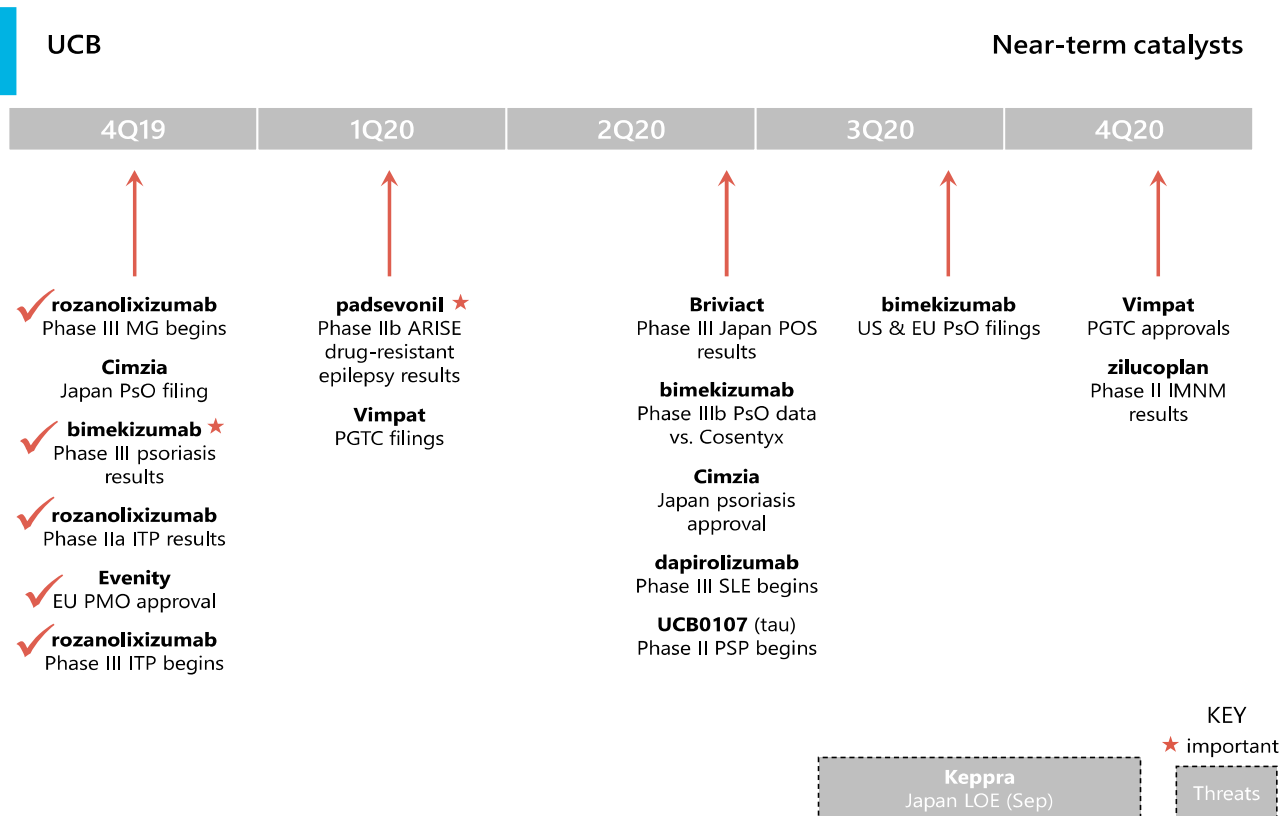
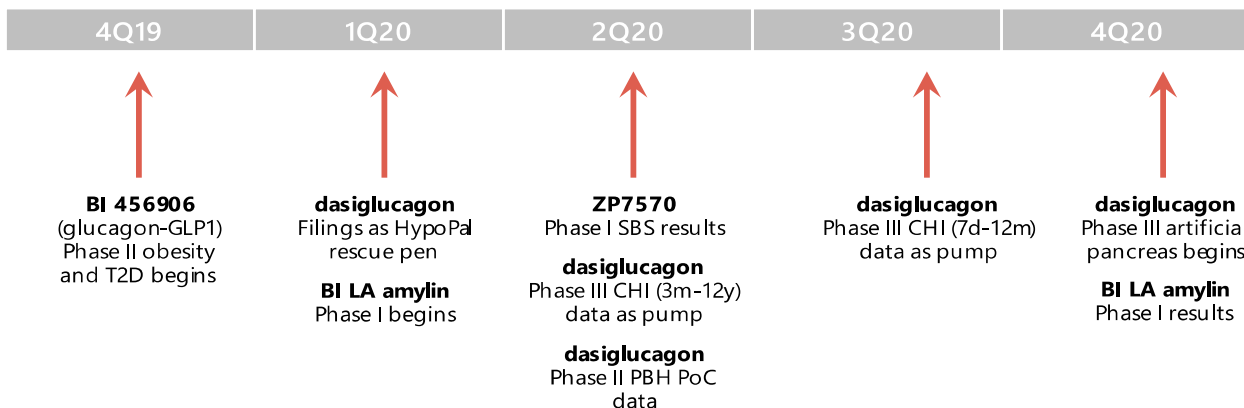


Exhibit 36 - Zealand catalysts

Zealand Pharma

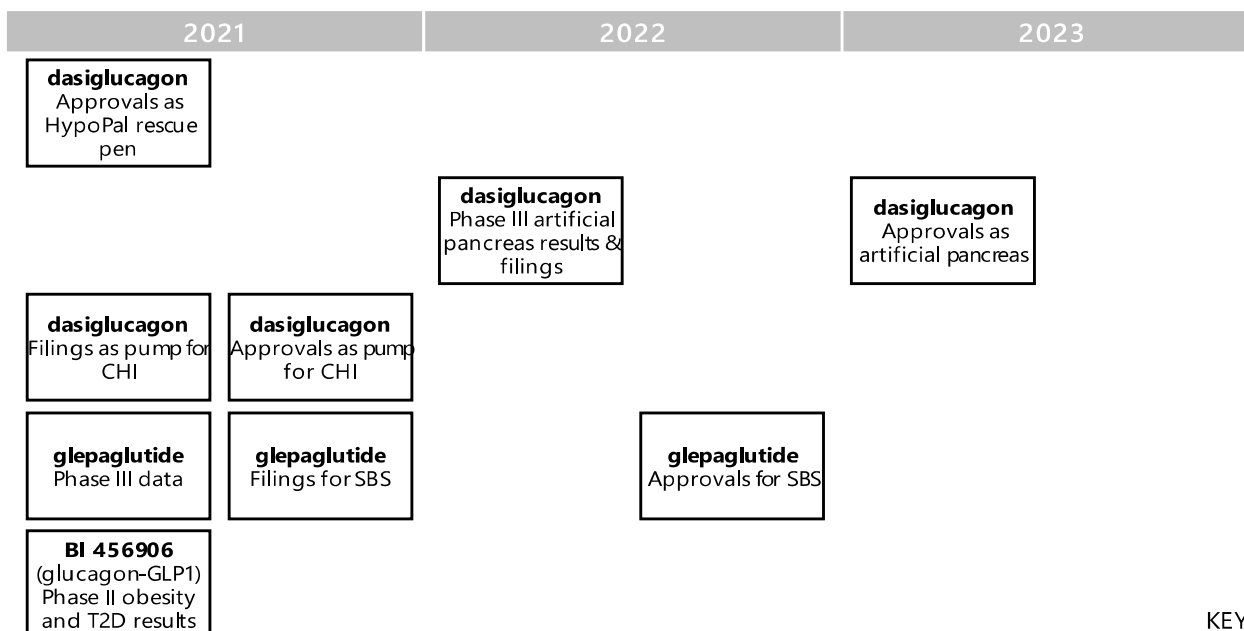
Near-term catalysts



KEY
★ important
Threats

Zealand Pharma

Mid-term catalysts



KEY
★ important
Threats

Jefferies

Source: Jefferies

Exhibit 37 - AC Immune Profit and Loss Model

(CHF millions except EPS Dec YE)	2019E									
	2018A	1Q19A	2Q19A	3Q19A	4Q19E	2019E	2020E	2021E	2022E	2023E
Product Royalties	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Contract Revenues	7.2	75.0	1.5	33.4	5.0	114.9	30.0	0.0	0.0	0.0
Revenue	7.2	75.0	1.5	33.4	5.0	114.9	30.0	0.0	0.0	0.0
Cost of Sales	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Gross Profit	7.2	75.0	1.5	33.4	5.0	114.9	30.0	0.0	0.0	0.0
Total Operating Expenses	(56.7)	(14.9)	(16.3)	(15.4)	(19.2)	(65.8)	(83.3)	(94.6)	(103.4)	(109.6)
R&D Expenses	(44.3)	(11.6)	(12.7)	(11.5)	(15.2)	(51.0)	(67.0)	(77.1)	(84.8)	(89.8)
General & Admin. Expenses	(12.5)	(3.3)	(3.6)	(4.0)	(4.0)	(14.8)	(16.3)	(17.6)	(18.6)	(19.8)
Sales & Marketing Expenses	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
o/w Acquisition-related Amortisation/Write-down	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Other Operating Income	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Operating Exceptionals	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Operating Income	(49.6)	60.2	(14.8)	18.0	(14.2)	49.1	(53.3)	(94.6)	(103.4)	(109.6)
Adjusted Operating Income	(49.6)	60.2	(14.8)	18.0	(14.2)	49.1	(53.3)	(94.6)	(103.4)	(109.6)
Net Financial Income	(1.4)	(1.1)	(2.2)	0.2	(0.4)	(3.5)	0.9	0.9	0.4	(3.2)
Exceptionals	0.0	4.5	0.0	0.0	0.0	4.5	0.0	0.0	0.0	0.0
Income from Associates & JVs	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Pretax Profit	(51.0)	63.6	(16.9)	18.2	(14.7)	50.2	(52.4)	(93.7)	(103.0)	(112.8)
Adjusted Pretax Profit	(51.0)	59.1	(16.9)	18.2	(14.7)	45.7	(52.4)	(93.7)	(103.0)	(112.8)
Taxation	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Minority Interests	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Net Income from Continuing Operations	(51.0)	63.6	(16.9)	18.2	(14.7)	50.2	(52.4)	(93.7)	(103.0)	(112.8)
Net Income from Discontinued Operations	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Net Income	(51.0)	63.6	(16.9)	18.2	(14.7)	50.2	(52.4)	(93.7)	(103.0)	(112.8)
Adjusted Net Income	(51.0)	59.1	(16.9)	18.2	(14.7)	45.7	(52.4)	(93.7)	(103.0)	(112.8)
WA Basic Shares (mn)	61.8	67.9	70.8	71.8	71.8	70.0	72.0	72.6	73.2	73.8
WA Shares Diluted (mn)	61.8	71.3	70.8	71.8	71.8	74.0	72.0	72.6	73.2	73.8
EPS (CHF)	(0.8)	0.9	(0.2)	0.3	(0.2)	0.7	(0.7)	(1.3)	(1.4)	(1.5)
Adjusted EPS (CHF)	(0.8)	0.9	(0.2)	0.3	(0.2)	0.7	(0.7)	(1.3)	(1.4)	(1.5)
Diluted EPS (CHF)	(0.8)	0.9	(0.2)	0.3	(0.2)	0.7	(0.7)	(1.3)	(1.4)	(1.5)
Diluted Adjusted EPS (CHF)	(0.8)	0.8	(0.2)	0.3	(0.2)	0.6	(0.7)	(1.3)	(1.4)	(1.5)
% Change Year over Year										
Revenue	(64.5%)	5046.9%	(25.5%)	1349.5%	253.9%	1497.6%	(73.9%)	(100.0%)	n/a	n/a
Cost of Sales	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Gross Profit	(64.5%)	5046.9%	(25.5%)	1349.5%	253.9%	1497.6%	(73.9%)	(100.0%)	n/a	n/a
Total Operating Expenses	32.6%	16.5%	19.8%	6.6%	20.8%	16.0%	26.6%	13.6%	9.3%	6.0%
R&D Expenses	35.6%	15.1%	20.6%	(0.6%)	25.6%	15.2%	31.4%	15.0%	10.0%	6.0%
General & Admin. Expenses	23.1%	21.5%	17.0%	35.0%	5.4%	18.7%	10.0%	8.0%	6.0%	6.0%
Sales & Marketing Expenses	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Operating Income	(119.8%)	631.3%	(27.7%)	247.7%	1.8%	199.1%	(208.5%)	(77.6%)	(9.3%)	(6.0%)
Adjusted Operating Income	(119.8%)	631.3%	(27.7%)	247.7%	1.8%	199.1%	(208.5%)	(77.6%)	(9.3%)	(6.0%)
Net Financial Income	63.8%	(272.3%)	(606.1%)	117.5%	(129.3%)	(146.3%)	126.1%	0.0%	(55.6%)	(900.0%)
Pretax Profit	(92.9%)	647.4%	(51.7%)	234.8%	0.1%	198.6%	(204.3%)	(78.9%)	(9.9%)	(9.5%)
Adjusted Pretax Profit	(92.9%)	608.6%	(52.0%)	234.8%	0.1%	189.7%	(214.7%)	(78.9%)	(9.9%)	(9.5%)
Net Income	(92.9%)	647.4%	(51.7%)	234.8%	0.1%	198.6%	(204.3%)	(78.9%)	(9.9%)	(9.5%)
Adjusted Net Income	(92.9%)	608.6%	(52.0%)	234.8%	0.1%	189.7%	(214.7%)	(78.9%)	(9.9%)	(9.5%)
EPS (CHF)	(78.1%)	562.3%	(23.1%)	221.7%	6.0%	187.0%	(201.5%)	(77.5%)	(9.0%)	(8.6%)
Adjusted EPS (CHF)	(78.1%)	529.6%	(23.3%)	221.7%	6.0%	179.2%	(211.6%)	(77.5%)	(9.0%)	(8.6%)

Source: Jefferies estimates; company data

Exhibit 38 - ALK Profit and Loss Model

(DKK millions except EPS Dec YE)	2019E									
	2018A	1Q19A	2Q19A	3Q19A	4Q19E	2019E	2020E	2021E	2022E	2023E
Revenue	2,915	867	785	739	882	3,273	3,513	3,909	4,352	4,806
Cost of Sales	(1,282)	(335)	(386)	(293)	(385)	(1,399)	(1,397)	(1,432)	(1,518)	(1,564)
Gross Profit	1,633	532	399	446	497	1,874	2,115	2,476	2,834	3,242
Total Operating Expenses	(1,717)	(456)	(461)	(466)	(502)	(1,885)	(2,082)	(2,090)	(2,096)	(2,129)
Sales & Marketing Expenses	(1,137)	(296)	(303)	(286)	(310)	(1,195)	(1,240)	(1,291)	(1,330)	(1,369)
General & Admin. Expenses	(227)	(61)	(64)	(56)	(59)	(240)	(247)	(255)	(262)	(270)
R&D Expenses	(353)	(99)	(94)	(124)	(133)	(450)	(595)	(544)	(504)	(490)
o/w Acquisition-related Amortisation/Write-down	0	0	0	0	0	0	0	0	0	0
Other Operating Income	27	0	0	2	0	2	0	0	0	0
Operating Exceptionals	(39)	0	0	0	0	0	0	0	0	0
Operating Income	(96)	76	(62)	(18)	(5)	(9)	34	386	738	1,114
Adjusted Operating Income	(57)	76	(32)	(18)	(5)	21	34	386	738	1,114
EBITDA	97	133	24	36	48	241	269	642	1,014	1,410
Adjusted EBITDA	136	133	54	36	48	271	269	642	1,014	1,410
Net Financial Income	(7)	(2)	(18)	7	(5)	(18)	(35)	(50)	(35)	(15)
Exceptionals	0	0	0	0	0	0	0	0	0	0
Income from Associates & JVs	0	0	0	0	0	0	0	0	0	0
Pretax Profit	(103)	74	(80)	(11)	(10)	(27)	(1)	336	703	1,099
Adjusted Pretax Profit	(64)	74	(50)	(11)	(10)	3	(1)	336	703	1,099
Taxation	(67)	15	(16)	(3)	0	(4)	0	(126)	(264)	(412)
Minority Interests	0	0	0	0	0	0	0	0	0	0
Net Income from Continuing Operations	(170)	89	(96)	(14)	(10)	(31)	(1)	210	439	687
Net Income from Discontinued Operations	0	0	0	0	0	0	0	0	0	0
Net Income	(170)	89	(96)	(14)	(10)	(31)	(1)	210	439	687
Adjusted Net Income	(131)	89	(66)	(14)	(10)	(1)	(1)	210	439	687
WA Basic Shares (mn)	10.9	10.9	10.9	10.9	10.9	10.9	10.9	10.9	10.9	10.9
WA Shares Diluted (mn)	10.9	10.9	10.9	10.9	10.9	10.9	10.9	10.9	10.9	10.9
EPS (DKK)	(15.6)	8.2	(8.8)	(1.3)	(0.9)	(2.8)	(0.1)	19.3	40.4	63.1
Adjusted EPS (DKK)	(12.1)	8.2	(6.1)	(1.3)	(0.9)	(0.1)	(0.1)	19.3	40.4	63.1
<i>Diluted EPS (DKK)</i>	<i>(15.6)</i>	<i>8.1</i>	<i>(8.8)</i>	<i>(1.3)</i>	<i>(0.9)</i>	<i>(2.8)</i>	<i>(0.1)</i>	<i>19.2</i>	<i>40.2</i>	<i>62.8</i>
Diluted Adjusted EPS (DKK)	(12.1)	8.1	(6.1)	(1.3)	(0.9)	(0.1)	(0.1)	19.2	40.2	62.8
Dividends per Share Interim/Final (DKK)	0.0					0.0	1.0	4.0	5.0	5.0
% Change Year over Year										
Revenue	0.2%	15.3%	9.8%	11.8%	12.1%	12.3%	7.3%	11.3%	11.3%	10.4%
Cost of Sales	11.3%	7.4%	17.3%	1.7%	9.1%	9.1%	(0.1%)	2.5%	6.0%	3.0%
Gross Profit	(7.1%)	20.9%	3.4%	19.6%	14.6%	14.8%	12.9%	17.1%	14.5%	14.4%
Total Operating Expenses	1.7%	16.0%	9.0%	17.1%	(0.2%)	9.8%	10.4%	0.4%	0.3%	1.6%
Sales & Marketing Expenses	6.6%	13.8%	9.8%	8.3%	(8.0%)	5.1%	3.8%	4.1%	3.0%	2.9%
General & Admin. Expenses	(1.7%)	19.6%	4.9%	12.0%	(9.2%)	5.7%	3.0%	3.0%	3.0%	3.0%
R&D Expenses	(9.5%)	20.7%	9.3%	47.6%	31.7%	27.5%	32.1%	(8.4%)	(7.4%)	(2.8%)
Operating Income	(20.0%)	61.7%	(67.6%)	28.0%	94.1%	90.9%	482.0%	1051.6%	91.3%	50.9%
Adjusted Operating Income	(179.2%)	61.7%	13.5%	28.0%	88.6%	137.2%	57.8%	1051.6%	91.3%	50.9%
Net Financial Income	83.3%	90.5%	(200.0%)	450.0%	(150.0%)	(157.1%)	(94.4%)	(42.9%)	30.0%	57.1%
Pretax Profit	15.6%	184.6%	(321.1%)	59.3%	88.2%	74.0%	94.4%	22620.9%	109.3%	56.2%
Adjusted Pretax Profit	(313.3%)	184.6%	(163.2%)	59.3%	77.8%	105.0%	(146.2%)	22620.9%	109.3%	56.2%
Net Income	(7.6%)	270.8%	(464.7%)	54.8%	93.3%	81.9%	95.2%	14175.6%	109.3%	56.2%
Adjusted Net Income	(263.9%)	270.8%	(288.2%)	54.8%	90.9%	99.4%	(93.4%)	14175.6%	109.3%	56.2%
EPS (DKK)	1.8%	270.3%	(463.9%)	54.9%	93.3%	81.9%	95.2%	14175.6%	109.3%	56.2%
Adjusted EPS (DKK)	(232.2%)	270.3%	(287.7%)	54.9%	90.9%	99.4%	(93.4%)	14175.6%	109.3%	56.2%

Source: Jefferies estimates; company data

Exhibit 39 - Almirall Profit and Loss Model

(EUR millions except EPS Dec YE)	2019E									
	2018A	1Q19A	2Q19A	3Q19A	4Q19E	2019E	2020E	2021E	2022E	2023E
Net Sales	756.9	224.4	205.9	207.4	213.5	851.1	875.6	986.8	1,054.7	1,146.1
Other Income	54.0	7.8	30.9	6.8	21.0	66.6	20.8	14.8	31.3	4.8
Total Revenues	811.0	232.2	236.8	214.2	234.5	917.7	896.4	1,001.6	1,086.0	1,150.9
Cost of Sales	(227.7)	(60.2)	(61.2)	(59.3)	(59.4)	(240.1)	(241.2)	(259.4)	(274.3)	(292.4)
Gross Profit	583.3	172.0	175.6	154.9	175.1	677.6	655.2	742.1	811.7	858.5
Total Operating Expenses	(459.6)	(121.3)	(124.7)	(117.2)	(135.6)	(498.8)	(512.2)	(547.7)	(567.3)	(589.6)
SG&A Expenses	(372.0)	(99.6)	(102.5)	(94.7)	(106.6)	(403.4)	(407.1)	(424.3)	(435.5)	(446.4)
R&D Expenses	(87.6)	(21.7)	(22.2)	(22.5)	(28.9)	(95.3)	(105.1)	(123.3)	(131.8)	(143.3)
o/w Acquisition-related Amortisation/Write-down	(71.6)	(28.6)	(28.5)	(28.2)	(28.7)	(114.0)	(120.1)	(128.0)	(128.6)	(128.6)
Other Operating Income	(4.4)	(3.1)	2.5	0.3	(2.0)	(2.3)	(5.5)	(5.6)	(5.7)	(5.8)
Operating Exceptionals	(46.4)	0.0	(7.5)	0.0	0.0	(7.5)	0.0	0.0	0.0	0.0
Operating Income	72.9	47.6	45.9	38.0	37.5	169.0	137.5	188.9	238.7	263.0
Pre-exceptionals Operating Income	119.3	47.6	53.4	38.0	37.5	176.5	137.5	188.9	238.7	263.0
Adjusted Operating Income	190.9	76.2	81.9	66.2	66.2	290.5	257.6	316.9	367.3	391.6
EBITDA	163.0	80.2	78.5	70.3	70.9	299.8	275.5	335.5	386.8	412.1
Adjusted EBITDA	209.5	80.2	86.0	70.3	70.9	307.3	275.5	335.5	386.8	412.1
Net Financial Income	(4.6)	(6.0)	2.0	(5.2)	(4.8)	(14.0)	(6.5)	(5.0)	0.5	6.0
Other Financial Income	(7.4)	0.1	(5.8)	14.3	0.0	8.6	0.0	0.0	0.0	0.0
Exceptionals	14.1	0.7	(7.8)	(1.1)	0.1	(8.1)	0.0	0.0	0.0	0.0
Income from Associates & JVs	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Pretax Profit	75.0	42.4	34.3	46.0	32.8	155.5	131.0	183.9	239.2	269.0
Pre-exceptionals PTP	107.3	41.7	49.6	47.1	32.7	171.1	131.0	183.9	239.2	269.0
Adjusted Pretax Profit	178.9	70.3	78.1	75.3	61.4	285.1	251.1	311.9	367.8	397.6
Taxation	2.7	(9.3)	(2.4)	(10.6)	(8.0)	(30.2)	(26.8)	(37.7)	(49.0)	(55.1)
Minority Interests	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Net Income from Continuing Operations	77.7	33.1	32.0	35.4	24.8	125.3	104.1	146.2	190.2	213.9
Net Income from Discontinued Operations	0.0	(3.2)	0.0	0.0	0.0	(3.2)	0.0	0.0	0.0	0.0
Net Income	77.7	29.9	32.0	35.4	24.8	122.1	104.1	146.2	190.2	213.9
Pre-exceptionals "Normalised" Net Income	88.2	32.6	43.4	36.2	24.7	136.9	104.1	146.2	190.2	213.9
Adjusted Net Income	138.3	52.6	63.3	56.0	44.9	216.7	188.2	235.8	280.2	303.9
WA Basic Shares (mn)	173.4	173.8	173.8	174.2	174.2	174.2	174.6	174.6	174.6	174.6
WA Shares Diluted (mn)	173.4	187.6	187.6	188.0	188.0	188.0	188.3	187.6	174.6	174.6
EPS (EUR)	0.45	0.17	0.18	0.20	0.14	0.70	0.60	0.84	1.09	1.23
Pre-exceptionals EPS (EUR)	0.51	0.19	0.25	0.21	0.14	0.79	0.60	0.84	1.09	1.23
Adjusted EPS (EUR)	0.80	0.30	0.36	0.32	0.26	1.24	1.08	1.35	1.61	1.74
Diluted EPS (EUR)	0.45	0.16	0.17	0.19	0.13	0.66	0.56	0.79	1.09	1.23
Diluted Adjusted EPS (EUR)	0.80	0.28	0.34	0.30	0.24	1.16	1.01	1.27	1.61	1.74
Dividends Paid and Proposed	(22.7)					(24.1)	(37.2)	(39.1)	(41.0)	(43.1)
Dividends per Share Interim/Final (EUR)	0.19					0.20	0.21	0.22	0.23	0.25
% Change Year over Year										
Total Revenues	7.3%	15.0%	20.6%	15.4%	3.3%	13.2%	(2.3%)	11.7%	8.4%	6.0%
Cost of Sales	(0.2%)	2.7%	8.9%	9.4%	1.3%	5.5%	0.4%	7.6%	5.7%	6.6%
Gross Profit	10.5%	19.9%	25.3%	17.9%	4.0%	16.2%	(3.3%)	13.3%	9.4%	5.8%
Total Operating Expenses	(4.4%)	17.2%	12.2%	9.1%	(1.4%)	8.5%	2.7%	6.9%	3.6%	3.9%
SG&A Expenses	(5.4%)	17.3%	12.0%	7.3%	(0.6%)	8.5%	0.9%	4.2%	2.6%	2.5%
R&D Expenses	(0.3%)	16.7%	13.0%	17.4%	(4.2%)	8.8%	10.2%	17.4%	6.9%	8.7%
Operating Income	124.5%	25.3%	66.5%	74.8%	359.8%	131.9%	(18.7%)	37.4%	26.4%	10.2%
Adjusted Operating Income	54.7%	42.2%	89.3%	70.9%	19.7%	52.2%	(11.3%)	23.0%	15.9%	6.6%
EBITDA	184.2%	38.3%	64.9%	60.1%	423.4%	83.9%	(8.1%)	21.8%	15.3%	6.5%
Adjusted EBITDA	47.4%	38.3%	80.6%	60.1%	18.2%	46.7%	(10.4%)	21.8%	15.3%	6.5%
Net Financial Income	78.0%	(400.0%)	536.0%	(449.7%)	(143.1%)	(205.5%)	53.6%	23.1%	110.0%	1100.0%
Pretax Profit	123.4%	14.4%	54.6%	5.6%	217.7%	107.4%	(15.8%)	40.4%	30.1%	12.5%
Adjusted Pretax Profit	59.3%	33.4%	103.1%	83.5%	31.5%	59.4%	(11.9%)	24.2%	17.9%	8.1%
Net Income	125.6%	(3.1%)	51.3%	(14.1%)	259.6%	57.1%	(14.7%)	40.4%	30.1%	12.5%
Pre-exceptionals "Normalised" Net Income	224.9%	5.3%	104.0%	37.1%	157.7%	55.2%	(23.9%)	40.4%	30.1%	12.5%
Adjusted Net Income	59.1%	25.7%	96.3%	46.0%	73.1%	56.7%	(13.1%)	25.3%	18.8%	8.5%
EPS (EUR)	125.5%	(4.2%)	50.6%	(14.7%)	258.9%	56.5%	(14.9%)	40.4%	30.1%	12.5%
Pre-exceptionals EPS (EUR)	224.0%	4.1%	103.1%	36.1%	156.6%	54.5%	(24.1%)	40.4%	30.1%	12.5%
Adjusted EPS (EUR)	58.6%	24.2%	95.4%	45.0%	72.3%	56.0%	(13.3%)	25.3%	18.8%	8.5%

Source: Jefferies estimates; company data

Exhibit 40 - Cassiopea Profit and Loss model

(EUR millions except EPS Dec YE)	2019E							
	2018A	1H19A	2H19E	2019E	2020E	2021E	2022E	2023E
US Dermatology Sales	0.0	0.0	0.0	0.0	15.0	106.6	182.0	256.1
Royalties from Ex-US Partners	0.0	0.0	0.0	0.0	0.0	3.0	7.6	13.4
License Fee Income	0.0	0.0	0.0	0.0	30.0	0.0	30.0	10.0
Revenue	0.0	0.0	0.0	0.0	45.0	109.6	219.5	279.5
Cost of Sales	0.0	0.0	0.0	0.0	(1.8)	(12.8)	(22.1)	(33.8)
Gross Profit	0.0	0.0	0.0	0.0	43.2	96.8	197.5	245.7
Total Operating Expenses	(14.1)	(6.3)	(14.9)	(21.2)	(81.7)	(122.7)	(142.3)	(173.0)
R&D Expenses	(12.2)	(4.7)	(11.5)	(16.2)	(28.9)	(32.6)	(30.4)	(32.5)
Selling, General & Admin. Expenses	(1.9)	(1.6)	(3.4)	(5.0)	(52.8)	(90.1)	(112.0)	(140.5)
o/w Acquisition-related Amortisation/Write-down	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Other Operating Income	0.9	0.0	2.0	2.0	0.0	0.0	0.0	0.0
Operating Exceptionals	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Operating Income	(13.2)	(6.3)	(12.9)	(19.2)	(38.5)	(25.9)	55.1	72.7
Adjusted Operating Income	(13.2)	(6.3)	(12.9)	(19.2)	(38.5)	(25.9)	55.1	72.7
Net Financial Income	0.6	(0.2)	(0.2)	(0.4)	(2.5)	(4.5)	(4.0)	(1.5)
Exceptionals	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Income from Associates & JVs	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Pretax Profit	(12.7)	(6.5)	(13.1)	(19.6)	(41.0)	(30.4)	51.1	71.2
Adjusted Pretax Profit	(12.7)	(6.5)	(13.1)	(19.6)	(41.0)	(30.4)	51.1	71.2
Taxation	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Minority Interests	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Net Income from Continuing Operations	(12.7)	(6.5)	(13.1)	(19.6)	(41.0)	(30.4)	51.1	71.2
Net Income from Discontinued Operations	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Net Income	(12.7)	(6.5)	(13.1)	(19.6)	(41.0)	(30.4)	51.1	71.2
Adjusted Net Income	(12.7)	(6.5)	(13.1)	(19.6)	(41.0)	(30.4)	51.1	71.2
WA Basic Shares (mn)	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
WA Shares Diluted (mn)	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
EPS (EUR)	(1.3)	(0.6)	(1.3)	(2.0)	(4.1)	(3.0)	5.1	7.1
Adjusted EPS (EUR)	(1.3)	(0.6)	(1.3)	(2.0)	(4.1)	(3.0)	5.1	7.1
Diluted EPS (EUR)	(1.3)	(0.6)	(1.3)	(2.0)	(4.1)	(3.0)	5.1	7.1
Diluted Adjusted EPS (EUR)	(1.3)	(0.6)	(1.3)	(2.0)	(4.1)	(3.0)	5.1	7.1
EPS (CHF)	(1.5)	(0.7)	(1.4)	(2.2)	(4.4)	(3.3)	5.5	7.7
Adjusted EPS (CHF)	(1.5)	(0.7)	(1.4)	(2.2)	(4.4)	(3.3)	5.5	7.7
% Change Year over Year								
Revenue	n/a	n/a	n/a	n/a	n/a	143.5%	100.3%	27.3%
Cost of Sales	n/a	n/a	n/a	n/a	n/a	610.6%	72.4%	53.3%
Gross Profit	n/a	n/a	n/a	n/a	n/a	124.0%	104.0%	24.4%
Total Operating Expenses	(2.9%)	(11.3%)	111.3%	49.8%	285.8%	50.2%	16.0%	21.5%
R&D Expenses	(6.3%)	(27.0%)	97.3%	32.1%	78.8%	12.7%	(6.7%)	7.1%
Selling, General & Admin. Expenses	27.4%	140.7%	177.4%	164.6%	955.5%	70.7%	24.3%	25.5%
Operating Income	(23.2%)	11.3%	(110.2%)	(45.1%)	(100.7%)	32.8%	313.2%	31.8%
Adjusted Operating Income	(23.2%)	11.3%	(110.2%)	(45.1%)	(100.7%)	32.8%	313.2%	31.8%
Net Financial Income	119.0%	(148.5%)	(212.9%)	(171.7%)	(525.0%)	(80.0%)	11.1%	62.5%
Pretax Profit	7.3%	4.0%	(121.2%)	(54.6%)	(109.4%)	25.9%	268.4%	39.2%
Adjusted Pretax Profit	7.3%	4.0%	(121.2%)	(54.6%)	(109.4%)	25.9%	268.4%	39.2%
Net Income	7.3%	4.0%	(121.2%)	(54.6%)	(109.4%)	25.9%	268.4%	39.2%
Adjusted Net Income	7.3%	4.0%	(121.2%)	(54.6%)	(109.4%)	25.9%	268.4%	39.2%
EPS (EUR)	7.3%	4.0%	(121.2%)	(54.6%)	(109.4%)	25.9%	268.4%	39.2%
Adjusted EPS (EUR)	7.3%	4.0%	(121.2%)	(54.6%)	(109.4%)	25.9%	268.4%	39.2%
EPS (CHF)	3.7%	7.3%	(112.6%)	(48.9%)	(104.0%)	25.9%	268.4%	39.2%
Adjusted EPS (CHF)	3.7%	7.3%	(112.6%)	(48.9%)	(104.0%)	25.9%	268.4%	39.2%

Source: Company data; Jefferies estimates

Exhibit 41 - Compugen Profit and Loss Model

(USD millions except EPS Dec YE)	2019E									
	2018A	1Q19A	2Q19A	3Q19A	4Q19E	2019E	2020E	2021E	2022E	2023E
License Revenue	17.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Other Revenues	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Revenue	17.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cost of Sales	(1.0)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Gross Profit	16.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Operating Expenses	(40.0)	(8.1)	(5.9)	(6.7)	(8.0)	(28.7)	(29.1)	(31.9)	(35.1)	(38.6)
Sales & Marketing Expenses	(1.6)	(0.2)	(0.2)	(0.1)	(0.2)	(0.7)	(0.6)	(0.7)	(0.7)	(0.7)
General & Admin. Expenses	(8.0)	(2.0)	(2.0)	(2.3)	(2.3)	(8.5)	(7.0)	(7.7)	(8.5)	(9.3)
R&D Expenses	(30.3)	(5.9)	(3.8)	(4.3)	(5.5)	(19.5)	(21.5)	(23.6)	(26.0)	(28.5)
<i>o/w Acquisition-related Amortisation/Write-down:</i>	<i>0.0</i>	<i>0.0</i>	<i>0.0</i>	<i>0.0</i>	<i>0.0</i>	<i>0.0</i>	<i>0.0</i>	<i>0.0</i>	<i>0.0</i>	<i>0.0</i>
Other Operating Income	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Operating Exceptionals	0.0	(0.4)	(1.1)	0.0	0.0	(1.5)	0.0	0.0	0.0	0.0
Operating Income	(23.2)	(8.5)	(7.0)	(6.7)	(8.0)	(30.2)	(29.1)	(31.9)	(35.1)	(38.6)
Adjusted Operating Income	(23.2)	(8.1)	(5.9)	(6.7)	(8.0)	(28.7)	(29.1)	(31.9)	(35.1)	(38.6)
Net Financial Income	0.6	0.1	0.3	0.2	0.3	0.9	0.3	(0.8)	(2.9)	(5.9)
Exceptionals	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Income from Associates & JVs	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Pretax Profit	(22.6)	(8.4)	(6.7)	(6.5)	(7.7)	(29.3)	(28.8)	(32.7)	(38.0)	(44.5)
Adjusted Pretax Profit	(22.6)	(8.0)	(5.6)	(6.5)	(7.7)	(27.8)	(28.8)	(32.7)	(38.0)	(44.5)
Taxation	0.0	0.0	0.7	0.0	0.0	0.7	0.0	0.0	0.0	0.0
Minority Interests	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Net Income from Continuing Operations	(22.6)	(8.4)	(6.0)	(6.5)	(7.7)	(28.5)	(28.8)	(32.7)	(38.0)	(44.5)
Net Income from Discontinued Operations	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Net Income	(22.6)	(8.4)	(6.0)	(6.5)	(7.7)	(28.5)	(28.8)	(32.7)	(38.0)	(44.5)
Adjusted Net Income	(22.6)	(8.0)	(4.9)	(6.5)	(7.7)	(27.0)	(28.8)	(32.7)	(38.0)	(44.5)
WA Basic Shares (mn)	55.3	60.0	61.5	65.4	66.5	63.5	67.1	67.4	67.6	67.9
WA Shares Diluted (mn)	55.3	60.0	61.5	65.4	66.5	63.5	67.1	67.4	67.6	67.9
EPS (USD)	(0.41)	(0.14)	(0.10)	(0.10)	(0.12)	(0.45)	(0.43)	(0.49)	(0.56)	(0.66)
Adjusted EPS (USD)	(0.41)	(0.13)	(0.08)	(0.10)	(0.12)	(0.43)	(0.43)	(0.49)	(0.56)	(0.66)
Diluted EPS (USD)	(0.41)	(0.14)	(0.10)	(0.10)	(0.12)	(0.45)	(0.43)	(0.49)	(0.56)	(0.66)
Diluted Adjusted EPS (USD)	(0.41)	(0.13)	(0.08)	(0.10)	(0.12)	(0.43)	(0.43)	(0.49)	(0.56)	(0.66)
% Change Year over Year										
Revenue	n/a					(100.0%)	n/a	n/a	n/a	n/a
Cost of Sales	n/a					(100.0%)	n/a	n/a	n/a	n/a
Gross Profit	n/a					(100.0%)	n/a	n/a	n/a	n/a
Total Operating Expenses	6.9%					(28.4%)	1.5%	9.9%	9.9%	9.9%
Sales & Marketing Expenses	37.4%					(60.0%)	(5.0%)	5.0%	5.0%	5.0%
General & Admin. Expenses	5.3%					5.7%	(17.6%)	10.0%	10.0%	10.0%
R&D Expenses	6.1%					(35.7%)	10.0%	10.0%	10.0%	10.0%
Operating Income	37.9%					(29.8%)	3.6%	(9.9%)	(9.9%)	(9.9%)
Adjusted Operating Income	37.9%					(23.4%)	(1.5%)	(9.9%)	(9.9%)	(9.9%)
Net Financial Income	85.3%					43.3%	(66.7%)	(366.7%)	(262.5%)	(103.4%)
Pretax Profit	39.0%					(29.4%)	1.6%	(13.8%)	(16.1%)	(17.0%)
Adjusted Pretax Profit	39.0%					(22.8%)	(3.7%)	(13.8%)	(16.1%)	(17.0%)
Net Income	39.0%					(26.3%)	(0.8%)	(13.8%)	(16.1%)	(17.0%)
Adjusted Net Income	39.0%					(19.6%)	(6.4%)	(13.8%)	(16.1%)	(17.0%)
EPS (USD)	43.6%					(10.0%)	4.6%	(13.4%)	(15.6%)	(16.6%)
Adjusted EPS (USD)	43.6%					(4.2%)	(0.7%)	(13.4%)	(15.6%)	(16.6%)

Source: Jefferies estimates; company data

Exhibit 42 - Cosmo Profit and Loss Model

	2019E							
(EUR millions except EPS Dec YE)	2018A	1H19A	2H19E	2019E	2020E	2021E	2022E	2023E
Revenue	65.6	21.5	25.2	46.7	76.8	96.5	151.1	240.5
Cost of Sales	(22.1)	(11.0)	(8.3)	(19.3)	(24.3)	(29.4)	(36.8)	(46.9)
Gross Profit	43.6	10.5	16.9	27.4	52.5	67.2	114.3	193.6
Total Operating Expenses	(61.1)	(25.0)	(20.0)	(45.0)	(41.6)	(38.3)	(36.9)	(51.1)
<i>Selling, General & Admin. Expenses</i>	<i>(50.6)</i>	<i>(17.3)</i>	<i>(11.6)</i>	<i>(28.9)</i>	<i>(16.6)</i>	<i>(18.9)</i>	<i>(23.3)</i>	<i>(37.0)</i>
<i>R&D Expenses</i>	<i>(10.4)</i>	<i>(7.7)</i>	<i>(8.4)</i>	<i>(16.1)</i>	<i>(25.0)</i>	<i>(19.3)</i>	<i>(13.6)</i>	<i>(14.1)</i>
Of which Personnel Expenses	(38.6)	(18.0)	(12.0)	(30.0)	(26.0)	(28.1)	(32.0)	(44.3)
Of which Depreciation and Amortisation	(4.5)	(2.6)	(2.7)	(5.3)	(6.4)	(7.6)	(7.8)	(8.2)
Of which Other Operating Expenses	(33.9)	(12.1)	(10.3)	(22.4)	(25.2)	(22.0)	(21.4)	(29.5)
Other Operating Income	0.9	0.3	0.0	0.3	0.0	0.0	0.0	0.0
Operating Exceptionals	0.0	(3.0)	0.0	(3.0)	0.0	0.0	0.0	0.0
Operating Income	(16.6)	(17.2)	(3.0)	(20.2)	10.9	28.9	77.4	142.5
Adjusted Operating Income	(16.6)	(14.2)	(3.0)	(17.2)	10.9	28.9	77.4	142.5
Net Financial Income	4.6	(2.6)	0.6	(2.0)	(1.0)	0.0	1.0	2.7
Exceptionals	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Income from Associates & JVs	(5.5)	(2.8)	(5.6)	(8.4)	(10.5)	(11.0)	(11.6)	(12.2)
Pretax Profit	(17.5)	(22.6)	(8.0)	(30.6)	(0.6)	17.9	66.8	133.0
Adjusted Pretax Profit	(17.5)	(19.6)	(8.0)	(27.6)	(0.6)	17.9	66.8	133.0
Taxation	(0.6)	1.8	0.0	1.8	0.0	0.0	0.0	(15.4)
Minority Interests	0.1	0.1	0.0	0.1	0.0	0.0	0.0	0.0
Net Income from Continuing Operations	(18.0)	(20.7)	(8.0)	(28.7)	(0.6)	17.9	66.8	117.6
Net Income from Discontinued Operations	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Net Income	(18.0)	(20.7)	(8.0)	(28.7)	(0.6)	17.9	66.8	117.6
Adjusted Net Income	(18.0)	(17.7)	(8.0)	(25.7)	(0.6)	17.9	66.8	117.6
WA Basic Shares (mn)	15.0	14.7	14.7	14.7	14.6	14.7	14.7	15.4
WA Shares Diluted (mn)	15.0	14.7	14.7	14.7	14.6	15.0	16.4	15.7
EPS (EUR)	(1.2)	(1.4)	(0.5)	(1.9)	(0.0)	1.2	4.5	7.6
Adjusted EPS (EUR)	(1.2)	(1.2)	(0.5)	(1.7)	(0.0)	1.2	4.5	7.6
Adjusted EPS (CHF)	(1.4)	(1.4)	(0.6)	(1.9)	(0.0)	1.3	4.9	8.3
Dividends per Share Interim/Final (EUR)	0.0			0.0	0.0	1.5	1.8	2.2
% Change Year over Year								
Revenue	(2.4%)	(41.3%)	(12.9%)	(28.8%)	64.4%	25.7%	56.5%	59.2%
Cost of Sales	0.3%	2.9%	(27.0%)	(12.5%)	25.9%	20.7%	25.4%	27.5%
Gross Profit	(3.7%)	(59.6%)	(3.8%)	(37.1%)	91.6%	27.9%	70.1%	69.4%
Total Operating Expenses	10.4%	(25.3%)	(27.7%)	(26.4%)	(7.5%)	(7.9%)	(3.6%)	38.4%
<i>Selling, General & Admin. Expenses (incl. D&A)</i>	<i>9.4%</i>	<i>(40.3%)</i>	<i>(46.6%)</i>	<i>(43.0%)</i>	<i>(42.4%)</i>	<i>13.9%</i>	<i>22.9%</i>	<i>58.8%</i>
<i>R&D Expenses</i>	<i>15.2%</i>	<i>71.9%</i>	<i>41.0%</i>	<i>54.2%</i>	<i>55.1%</i>	<i>(22.5%)</i>	<i>(29.6%)</i>	<i>3.5%</i>
Of which Personnel Expenses	7.2%	(9.0%)	(36.2%)	(22.2%)	(13.3%)	8.0%	13.9%	38.5%
Of which Other Operating Expenses	10.8%	(36.9%)	(29.7%)	(33.8%)	12.4%	(12.6%)	(2.8%)	38.1%
Operating Income	(73.1%)	(138.5%)	67.7%	(21.8%)	154.1%	164.2%	167.6%	84.2%
Adjusted Operating Income	(73.1%)	(96.9%)	67.7%	(3.7%)	163.5%	164.2%	167.6%	84.2%
Pretax Profit	46.2%	(328.1%)	34.1%	(75.5%)	98.2%	3295.2%	273.5%	99.2%
Net Income	44.5%	(165.8%)	21.7%	(59.4%)	98.0%	3295.2%	273.5%	76.1%
Adjusted Net Income	44.5%	(127.3%)	21.7%	(42.7%)	97.8%	3295.2%	273.5%	76.1%
EPS (EUR)	45.2%	(171.6%)	20.3%	(62.4%)	98.0%	3288.7%	272.7%	67.6%
Adjusted EPS (EUR)	45.2%	(132.2%)	20.3%	(45.4%)	97.8%	3288.7%	272.7%	67.6%

Source: Jefferies estimates, company data

Exhibit 43 - Erytech Profit and Loss Model

(EUR millions except EPS Dec YE)	2019E							
	2018A	1H19A	2H19E	2019E	2020E	2021E	2022E	2023E
eryaspase US Sales	0.0	0.0	0.0	0.0	0.0	0.0	32.8	82.6
eryaspase Ex-US Revenue	0.0	0.0	0.0	0.0	0.0	0.0	8.3	16.1
Other Revenue	4.4	3.0	2.6	5.5	3.5	2.5	1.5	1.5
Revenue	4.4	3.0	2.6	5.5	3.5	2.5	42.6	100.1
Cost of Sales	0.0	0.0	0.0	0.0	0.0	0.0	(11.1)	(14.6)
Gross Profit	4.4	3.0	2.6	5.5	3.5	2.5	31.5	85.5
Total Operating Expenses	(48.1)	(33.2)	(31.0)	(64.2)	(58.1)	(56.0)	(81.7)	(87.9)
R&D Expenses	(33.5)	(22.7)	(23.5)	(46.2)	(42.1)	(39.2)	(35.1)	(35.4)
General & Admin. Expenses	(14.6)	(10.5)	(7.5)	(18.0)	(16.0)	(16.8)	(17.6)	(18.5)
Sales & Marketing Expenses	0.0	0.0	0.0	0.0	0.0	0.0	(29.0)	(34.0)
o/w Acquisition-related Amortisation/Write-down	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Other Operating Income	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Operating Exceptionals	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Operating Income	(43.6)	(30.2)	(28.4)	(58.7)	(54.6)	(53.5)	(50.2)	(2.4)
Adjusted Operating Income	(43.6)	(30.2)	(28.4)	(58.7)	(54.6)	(53.5)	(50.2)	(2.4)
EBITDA	(42.8)	(29.2)	(27.1)	(56.3)	(51.2)	(50.0)	(46.6)	1.4
Adjusted EBITDA	(42.8)	(29.2)	(27.1)	(56.3)	(51.2)	(50.0)	(46.6)	1.4
Net Financial Income	5.4	1.0	0.2	1.2	0.0	(2.4)	(7.0)	(9.0)
Exceptionals	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Income from Associates & JVs	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Pretax Profit	(38.2)	(29.3)	(28.2)	(57.5)	(54.6)	(55.9)	(57.2)	(11.4)
Adjusted Pretax Profit	(38.2)	(29.3)	(28.2)	(57.5)	(54.6)	(55.9)	(57.2)	(11.4)
Taxation	(0.0)	(0.0)	0.0	0.0	0.0	0.0	0.0	0.0
Minority Interests	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Net Income from Continuing Operations	(38.2)	(29.3)	(28.2)	(57.5)	(54.6)	(55.9)	(57.2)	(11.4)
Net Income from Discontinued Operations	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Net Income	(38.2)	(29.3)	(28.2)	(57.5)	(54.6)	(55.9)	(57.2)	(11.4)
Adjusted Net Income	(38.2)	(29.3)	(28.2)	(57.5)	(54.6)	(55.9)	(57.2)	(11.4)
WA Basic Shares (mn)	17.9	17.9	18.0	18.0	18.0	18.1	18.2	18.3
WA Shares Diluted (mn)	17.9	17.9	18.0	18.0	18.0	18.1	18.2	18.3
EPS (EUR)	(2.1)	(1.6)	(1.6)	(3.2)	(3.0)	(3.1)	(3.1)	(0.6)
Adjusted EPS (EUR)	(2.1)	(1.6)	(1.6)	(3.2)	(3.0)	(3.1)	(3.1)	(0.6)
Diluted EPS (EUR)	(2.1)	(1.6)	(1.6)	(3.2)	(3.0)	(3.1)	(3.1)	(0.6)
Diluted Adjusted EPS (EUR)	(2.1)	(1.6)	(1.6)	(3.2)	(3.0)	(3.1)	(3.1)	(0.6)
% Change Year over Year								
Revenue	32.2%	30.9%	18.2%	24.7%	(36.1%)	(28.3%)	1576.4%	135.0%
Cost of Sales	n/a	n/a	n/a	n/a	n/a	n/a	n/a	31.4%
Gross Profit	32.2%	30.9%	18.2%	24.7%	(36.1%)	(28.3%)	1139.4%	171.5%
Total Operating Expenses	40.3%	37.5%	29.6%	33.6%	(9.5%)	(3.6%)	45.9%	7.6%
R&D Expenses	31.4%	35.6%	40.5%	38.1%	(8.9%)	(6.9%)	(10.5%)	0.9%
General & Admin. Expenses	66.1%	41.9%	4.2%	23.3%	(11.1%)	5.0%	5.0%	5.0%
Sales & Marketing Expenses	n/a	n/a	n/a	n/a	n/a	n/a	n/a	17.2%
Operating Income	(41.2%)	(38.2%)	(30.7%)	(34.5%)	7.0%	2.0%	6.1%	95.2%
Adjusted Operating Income	(41.2%)	(38.2%)	(30.7%)	(34.5%)	7.0%	2.0%	6.1%	95.2%
Pretax Profit	(14.0%)	(54.5%)	(46.2%)	(50.3%)	5.0%	(2.4%)	(2.4%)	80.0%
Adjusted Pretax Profit	(14.0%)	(54.5%)	(46.2%)	(50.3%)	5.0%	(2.4%)	(2.4%)	80.0%
Net Income	(14.0%)	(54.4%)	(46.3%)	(50.3%)	5.0%	(2.4%)	(2.4%)	80.0%
Adjusted Net Income	(14.0%)	(54.4%)	(46.3%)	(50.3%)	5.0%	(2.4%)	(2.4%)	80.0%
EPS (EUR)	27.7%	(54.4%)	(46.2%)	(50.2%)	5.2%	(2.0%)	(1.9%)	80.2%
Adjusted EPS (EUR)	27.7%	(54.4%)	(46.2%)	(50.2%)	5.2%	(2.0%)	(1.9%)	80.2%

Source: Jefferies estimates; company data

Exhibit 44 - Galapagos Profit and Loss Model

(EUR millions except EPS Dec YE)	2019E									
	2018A	1Q19A	2Q19A	3Q19A	4Q19E	2019E	2020E	2021E	2022E	2023E
Revenue	317.8	40.9	67.6	644.0	163.8	916.3	645.7	601.7	849.4	804.8
Cost of Sales	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Gross Profit	317.8	40.9	67.6	644.0	163.8	916.3	645.7	601.7	849.4	804.8
Total Operating Expenses	(362.7)	(94.2)	(112.0)	(153.3)	(176.8)	(536.2)	(747.8)	(849.8)	(831.5)	(886.1)
Sales & Marketing Expenses	(4.1)	(1.7)	(3.9)	(4.1)	(4.5)	(14.2)	(27.8)	(33.0)	(34.0)	(35.1)
General & Admin. Expenses	(35.6)	(9.2)	(13.7)	(28.6)	(33.5)	(85.0)	(140.0)	(156.8)	(172.5)	(186.3)
R&D Expenses	(322.9)	(83.2)	(94.4)	(120.7)	(138.8)	(437.0)	(580.0)	(660.0)	(625.0)	(664.8)
o/w Acquisition-related Amortisation/Write-down	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Other Operating Income	0.0	0.0	0.0	0.0	(6.8)	(6.8)	(13.2)	(9.0)	0.0	0.0
Operating Exceptionals	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Operating Income	(44.8)	(53.2)	(44.4)	490.6	(19.8)	373.2	(115.3)	(257.0)	17.9	(81.3)
Adjusted Operating Income	(44.8)	(53.2)	(44.4)	490.6	(19.8)	373.2	(115.3)	(257.0)	17.9	(81.3)
EBITDA	(38.6)	(50.5)	(41.5)	493.8	(16.5)	385.4	(101.6)	(241.9)	35.8	(60.3)
Adjusted EBITDA	(38.6)	(50.5)	(41.5)	493.8	(16.5)	385.4	(101.6)	(241.9)	35.8	(60.3)
Net Financial Income	15.6	4.7	(2.8)	(3.9)	7.0	5.0	29.0	39.0	39.0	39.0
Exceptionals	0.0	0.0	0.0	(142.3)	0.0	(142.3)	0.0	0.0	0.0	0.0
Income from Associates & JVs	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Pretax Profit	(29.2)	(48.6)	(47.2)	344.4	(12.8)	235.9	(86.3)	(218.0)	56.9	(42.3)
Adjusted Pretax Profit	(29.2)	(48.6)	(47.2)	486.8	(12.8)	378.2	(86.3)	(218.0)	56.9	(42.3)
Taxation	(0.1)	(0.1)	(0.1)	16.8	(0.1)	16.6	0.0	0.0	0.0	0.0
Minority Interests	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Net Income from Continuing Operations	(29.3)	(48.7)	(47.3)	361.2	(12.9)	252.5	(86.3)	(218.0)	56.9	(42.3)
Net Income from Discontinued Operations	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Net Income	(29.3)	(48.7)	(47.3)	361.2	(12.9)	252.5	(86.3)	(218.0)	56.9	(42.3)
Adjusted Net Income	(29.3)	(48.7)	(47.3)	503.6	(12.9)	394.8	(86.3)	(218.0)	56.9	(42.3)
WA Basic Shares (mn)	52.1	54.5	54.7	57.7	63.3	57.4	65.0	65.5	66.0	66.5
WA Shares Diluted (mn)	52.1	54.5	54.7	59.9	63.3	59.0	65.0	65.5	67.6	66.5
EPS (EUR)	(0.6)	(0.9)	(0.9)	6.3	(0.2)	4.4	(1.3)	(3.3)	0.9	(0.6)
Adjusted EPS (EUR)	(0.6)	(0.9)	(0.9)	8.7	(0.2)	6.9	(1.3)	(3.3)	0.9	(0.6)
Diluted EPS (EUR)	(0.6)	(0.9)	(0.9)	6.0	(0.2)	4.3	(1.3)	(3.3)	0.8	(0.6)
Diluted Adjusted EPS (EUR)	(0.6)	(0.9)	(0.9)	8.7	(0.2)	6.7	(1.3)	(3.3)	0.8	(0.6)
Adjusted ADR EPS (\$)	(0.7)	(1.0)	(1.0)	9.7	(0.2)	7.7	(1.5)	(3.7)	1.0	(0.7)
% Change Year over Year										
Revenue	103.9%	(8.7%)	18.5%	523.9%	45.3%	188.3%	(29.5%)	(6.8%)	41.2%	(5.3%)
Cost of Sales	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Gross Profit	103.9%	(8.7%)	18.5%	523.9%	45.3%	188.3%	(29.5%)	(6.8%)	41.2%	(5.3%)
Total Operating Expenses	47.6%	22.5%	23.3%	68.6%	69.9%	47.9%	39.5%	13.6%	(2.2%)	6.6%
Sales & Marketing Expenses	47.9%	322.8%	543.7%	354.1%	101.6%	242.5%	96.0%	18.5%	3.2%	3.2%
General & Admin. Expenses	45.9%	37.7%	61.2%	193.7%	212.9%	138.6%	64.7%	12.0%	10.0%	8.0%
R&D Expenses	47.8%	19.3%	15.5%	50.3%	52.3%	35.4%	32.7%	13.8%	(5.3%)	6.4%
Operating Income	50.1%	(66.2%)	(31.5%)	3898.3%	(327.4%)	932.9%	(130.9%)	(122.8%)	107.0%	(554.1%)
Adjusted Operating Income	50.1%	(66.2%)	(31.5%)	3898.3%	(327.4%)	932.9%	(130.9%)	(122.8%)	107.0%	(554.1%)
Pretax Profit	74.7%	(30.5%)	(117.5%)	2298.0%	(183.1%)	907.5%	(136.6%)	(152.5%)	126.1%	(174.4%)
Adjusted Pretax Profit	74.7%	(30.5%)	(117.5%)	3289.2%	(183.1%)	1394.9%	(122.8%)	(152.5%)	126.1%	(174.4%)
Net Income	74.7%	(30.5%)	(117.0%)	2333.9%	(186.0%)	962.9%	(134.2%)	(152.5%)	126.1%	(174.4%)
Adjusted Net Income	74.7%	(30.5%)	(117.0%)	3293.0%	(186.0%)	1449.4%	(121.9%)	(152.5%)	126.1%	(174.4%)
EPS (EUR)	76.0%	(22.0%)	(102.9%)	2093.4%	(173.8%)	882.8%	(130.2%)	(150.6%)	125.9%	(173.8%)
Adjusted EPS (EUR)	76.0%	(22.0%)	(102.9%)	2957.8%	(173.8%)	1324.1%	(119.3%)	(150.6%)	125.9%	(173.8%)

Source: Jefferies estimates, company data

Exhibit 45 - Genmab Profit and Loss Model

(DKK millions except EPS Dec YE)	2019E										
	2018A	1Q19A	2Q19A	1H19A	3Q19A	4Q19E	2019E	2020E	2021E	2022E	2023E
Darzalex (daratumumab) Royalties	1,708	502	667	1,169	864	1,012	3,045	4,734	6,712	8,417	9,800
Collaboration Revenues	1,284	83	101	184	170	1,757	2,111	351	244	167	100
Other Revenues	34	6	6	12	6	7	24	85	497	930	1,765
Revenues	3,025	591	774	1,365	1,040	2,776	5,181	5,171	7,453	9,514	11,666
Cost of Sales	0	0	0	0	0	0	0	0	(106)	(170)	(267)
Gross Profit	3,025	591	774	1,365	1,040	2,776	5,181	5,171	7,347	9,345	11,398
Total Operating Expenses	(1,645)	(617)	(637)	(1,254)	(689)	(842)	(2,785)	(3,438)	(3,908)	(4,451)	(5,167)
Research & Development Costs	(1,431)	(546)	(563)	(1,109)	(608)	(765)	(2,482)	(3,100)	(3,422)	(3,777)	(4,116)
General & Administrative Expenses	(214)	(71)	(73)	(144)	(81)	(78)	(303)	(321)	(337)	(351)	(365)
Sales & Marketing Expenses	0	0	0	0	0	0	0	(17)	(150)	(323)	(686)
Other Operating Income	0	0	0	0	0	0	0	0	0	0	0
Operating Exceptionals	0	0	0	0	0	0	0	0	0	0	0
Operating Income from Discontinued Operations	0	0	0	0	0	0	0	0	0	0	0
Operating Income	1,380	(26)	137	111	351	1,933	2,395	1,733	3,439	4,894	6,232
Adjusted Operating Income	1,380	(26)	137	111	351	1,933	2,395	1,733	3,439	4,894	6,232
EBITDA	1,468	11	174	185	388	1,971	2,544	1,908	3,635	5,086	6,462
Net Financial Income	232	120	(27)	93	349	12	454	52	107	177	272
Exceptionals	0	0	0	0	0	0	0	0	0	0	0
Pretax Profit	1,612	94	111	205	699	1,946	2,850	1,785	3,546	5,071	6,504
Adjusted Pretax Profit	1,612	94	111	205	699	1,946	2,850	1,785	3,546	5,071	6,504
Taxation	(140)	(22)	(26)	(47)	(162)	(52)	(262)	(197)	(780)	(1,116)	(1,431)
Net Income from Continuing Operations	1,472	72	85	157	537	1,893	2,587	1,588	2,766	3,955	5,073
Net Income from Discontinued Operations	0	0	0	0	0	0	0	0	0	0	0
Net Income	1,472	72	85	157	537	1,893	2,587	1,588	2,766	3,955	5,073
Adjusted Net Income	1,472	72	85	157	537	1,893	2,587	1,588	2,766	3,955	5,073
WA Basic Shares (mn)	61.3	61.4	61.4	61.4	64.1	65.1	63.0	65.4	66.2	67.0	67.8
WA Shares Diluted (mn)	62.0	61.9	61.9	61.9	64.9	67.1	65.0	67.4	68.2	69.0	69.8
EPS (DKK)	24.0	1.2	1.4	2.6	8.4	29.1	41.1	24.3	41.8	59.1	74.9
Adjusted EPS (DKK)	24.0	1.2	1.4	2.6	8.4	29.1	41.1	24.3	41.8	59.1	74.9
<i>Diluted EPS (DKK)</i>	<i>23.7</i>	<i>1.2</i>	<i>1.4</i>	<i>2.5</i>	<i>8.3</i>	<i>28.2</i>	<i>39.8</i>	<i>23.6</i>	<i>40.6</i>	<i>57.4</i>	<i>72.7</i>
Diluted Adjusted EPS (DKK)	23.7	1.1	1.3	2.6	8.1	28.2	39.8	23.6	40.6	57.4	72.7
% Change Year over Year											
Revenues	27.9%	(13.2%)	51.8%	14.6%	73.7%	124.6%	71.3%	(0.2%)	44.1%	27.7%	22.6%
Cost of Sales	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	60.0%	57.7%
Gross Profit	27.9%	(13.2%)	51.8%	14.6%	73.7%	124.6%	71.3%	(0.2%)	42.1%	27.2%	22.0%
Total Operating Expenses	61.1%	72.8%	70.0%	71.4%	73.0%	63.6%	69.3%	23.4%	13.7%	13.9%	16.1%
Research & Development Costs	63.7%	74.7%	76.7%	75.7%	77.1%	67.5%	73.4%	24.9%	10.4%	10.4%	9.0%
General & Administrative Expenses	45.4%	59.5%	31.6%	44.0%	47.2%	32.9%	41.8%	6.0%	5.0%	4.0%	4.0%
Sales & Marketing Expenses	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	793.5%	116.3%	112.3%
Operating Income	2.7%	(108.0%)	1.6%	(75.8%)	75.2%	168.1%	73.5%	(27.7%)	98.4%	42.3%	27.3%
Adjusted Operating Income	2.7%	(108.0%)	1.6%	(75.8%)	75.2%	168.1%	73.5%	(27.7%)	98.4%	42.3%	27.3%
Net Financial Income	182.6%	275.2%	(113.3%)	(29.2%)	1045.6%	(82.2%)	96.0%	(88.6%)	105.8%	65.4%	53.7%
Pretax Profit	51.5%	(63.2%)	(67.0%)	(65.4%)	203.2%	146.1%	76.8%	(37.4%)	98.6%	43.0%	28.3%
Adjusted Pretax Profit	51.5%	(63.2%)	(67.0%)	(65.4%)	203.2%	146.1%	76.8%	(37.4%)	98.6%	43.0%	28.3%
Net Income	33.4%	(63.6%)	(67.4%)	(65.8%)	199.7%	127.0%	75.8%	(38.6%)	74.1%	43.0%	28.3%
Adjusted Net Income	33.4%	(63.6%)	(67.4%)	(65.8%)	199.7%	127.0%	75.8%	(38.6%)	74.1%	43.0%	28.3%
EPS (DKK)	32.5%	(63.7%)	(67.5%)	(65.9%)	186.5%	113.7%	70.9%	(40.8%)	72.0%	41.3%	26.7%
Adjusted EPS (DKK)	32.5%	(63.7%)	(67.5%)	(65.9%)	186.5%	113.7%	70.9%	(40.8%)	72.0%	41.3%	26.7%

Source: Jefferies estimates; company data

Exhibit 46 - Idorsia Profit and Loss Model

(CHF millions except EPS Dec YE)	2019E									
	2018A	1Q19A	2Q19A	3Q19A	4Q19E	2019E	2020E	2021E	2022E	2023E
Revenue	60.6	6.6	6.6	6.6	15.7	35.3	27.3	16.0	28.3	97.5
Cost of Sales	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Gross Profit	60.6	6.6	6.6	6.6	15.7	35.3	27.3	16.0	28.3	97.5
Total Operating Expenses	(431.7)	(125.3)	(127.1)	(122.6)	(157.2)	(532.2)	(589.1)	(583.8)	(659.0)	(705.9)
Selling, General & Admin. Expenses	(60.6)	(15.5)	(16.6)	(15.2)	(16.8)	(64.0)	(68.5)	(72.6)	(76.9)	(81.6)
R&D Expenses	(370.1)	(109.5)	(110.2)	(107.1)	(140.2)	(467.0)	(519.4)	(510.1)	(580.9)	(624.3)
o/w Acquisition-related Amortisation/Write-down	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Other Operating Income	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
<i>Non-GAAP Total Operating Expenses</i>	<i>(389.0)</i>	<i>(116.7)</i>	<i>(117.6)</i>	<i>(113.2)</i>	<i>(148.1)</i>	<i>(495.7)</i>	<i>(546.9)</i>	<i>(540.7)</i>	<i>(615.0)</i>	<i>(662.1)</i>
Operating Exceptionals	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Operating Income	(371.1)	(118.7)	(120.6)	(116.1)	(141.5)	(496.9)	(561.7)	(567.9)	(630.6)	(608.4)
Adjusted Operating Income	(371.1)	(118.7)	(120.6)	(116.1)	(141.5)	(496.9)	(561.7)	(567.9)	(630.6)	(608.4)
Non-GAAP Operating Income	(328.4)	(110.1)	(111.1)	(106.7)	(132.4)	(460.3)	(519.5)	(524.7)	(586.7)	(564.6)
<i>Depreciation & Amortisation</i>	<i>29.7</i>	<i>4.8</i>	<i>4.9</i>	<i>4.9</i>	<i>4.9</i>	<i>19.5</i>	<i>24.2</i>	<i>24.3</i>	<i>24.3</i>	<i>23.3</i>
EBITDA	(341.4)	(113.9)	(115.7)	(111.2)	(136.6)	(477.3)	(537.5)	(543.6)	(606.4)	(585.1)
Adjusted EBITDA	(341.4)	(113.9)	(115.7)	(111.2)	(136.6)	(477.3)	(537.5)	(543.6)	(606.4)	(585.1)
Net Financial Income	(8.9)	3.4	(3.1)	3.2	(0.1)	3.4	(2.3)	(14.5)	(44.5)	(84.5)
Exceptionals	(7.8)	8.7	(1.0)	(5.1)	(1.9)	0.8	(8.2)	(8.4)	(8.6)	(8.8)
Income from Associates & JVs	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Pretax Profit	(387.8)	(106.5)	(124.6)	(118.0)	(143.6)	(492.7)	(572.2)	(590.8)	(683.7)	(701.7)
Adjusted Pretax Profit	(380.0)	(115.3)	(123.6)	(112.9)	(141.7)	(493.5)	(564.0)	(582.4)	(675.1)	(692.9)
Taxation	0.3	(0.2)	(1.2)	(2.2)	0.4	(3.1)	0.0	0.0	0.0	0.0
Minority Interests	1.1	0.3	0.2	0.3	0.5	1.3	1.7	2.0	2.1	2.3
Net Income from Continuing Operations	(386.4)	(106.4)	(125.6)	(119.9)	(142.6)	(494.5)	(570.5)	(588.8)	(681.6)	(699.4)
Net Income from Discontinued Operations	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Net Income	(386.4)	(106.4)	(125.6)	(119.9)	(142.6)	(494.5)	(570.5)	(588.8)	(681.6)	(699.4)
Adjusted Net Income	(379.5)	(116.2)	(124.5)	(113.3)	(140.7)	(494.7)	(562.3)	(580.4)	(673.0)	(690.6)
Non-GAAP Net Income	(336.9)	(107.6)	(115.0)	(103.9)	(131.6)	(458.1)	(520.1)	(537.2)	(629.1)	(646.8)
WA Basic Shares (mn)	124.8	131.1	131.2	131.2	131.2	131.2	131.8	132.8	133.8	134.8
WA Shares Diluted (mn)	124.8	131.1	131.2	131.2	131.2	131.2	131.8	132.8	133.8	134.8
EPS (CHF)	(3.1)	(0.8)	(1.0)	(0.9)	(1.1)	(3.8)	(4.3)	(4.4)	(5.1)	(5.2)
Adjusted EPS (CHF)	(3.0)	(0.9)	(0.9)	(0.9)	(1.1)	(3.8)	(4.3)	(4.4)	(5.0)	(5.1)
Non-GAAP EPS (CHF)	(2.7)	(0.8)	(0.9)	(0.8)	(1.0)	(3.5)	(3.9)	(4.0)	(4.7)	(4.8)
Diluted EPS (CHF)	(3.1)	(0.8)	(1.0)	(0.9)	(1.1)	(3.8)	(4.3)	(4.4)	(5.1)	(5.2)
Diluted Adjusted EPS (CHF)	(3.0)	(0.9)	(0.9)	(0.9)	(1.1)	(3.8)	(4.3)	(4.4)	(5.0)	(5.1)
Diluted Non-GAAP EPS (CHF)	(2.7)	(0.8)	(0.9)	(0.8)	(1.0)	(3.5)	(3.9)	(4.0)	(4.7)	(4.8)
% Change Year over Year										
Revenue	(61.7%)	(95.9%)	0.0%	0.0%	(61.7%)	(41.7%)	(22.6%)	(41.6%)	77.2%	244.4%
Cost of Sales	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Gross Profit	(61.7%)	(95.9%)	0.0%	0.0%	(61.7%)	(41.7%)	(22.6%)	(41.6%)	77.2%	244.4%
Total Operating Expenses	160.1%	(24.5%)	57.0%	0.7%	11.1%	23.3%	10.7%	(0.9%)	12.9%	7.1%
Selling, General & Admin. Expenses	95.9%	(50.1%)	21.0%	(1.4%)	3.7%	5.5%	7.0%	6.0%	6.0%	6.0%
R&D Expenses	174.3%	(18.8%)	64.0%	0.8%	12.4%	26.2%	11.2%	(1.8%)	13.9%	7.5%
Operating Income	(4606.7%)	(1405.8%)	(62.0%)	(0.7%)	(40.8%)	(33.9%)	(13.1%)	(1.1%)	(11.1%)	3.5%
Adjusted Operating Income	(4606.7%)	(1405.8%)	(62.0%)	(0.7%)	(40.8%)	(33.9%)	(13.1%)	(1.1%)	(11.1%)	3.5%
Net Financial Income	(187.7%)	210.9%	(51.0%)	233.0%	97.7%	138.2%	(167.6%)	(530.4%)	(206.9%)	(89.9%)
Pretax Profit	(2468.7%)	(605.7%)	(59.0%)	1.4%	(31.7%)	(27.0%)	(16.1%)	(3.2%)	(15.7%)	(2.6%)
Adjusted Pretax Profit	(3361.0%)	(950.1%)	(61.7%)	4.0%	(32.4%)	(29.9%)	(14.3%)	(3.3%)	(15.9%)	(2.6%)
Net Income	(2608.1%)	(645.8%)	(59.7%)	(0.6%)	(31.8%)	(28.0%)	(15.4%)	(3.2%)	(15.8%)	(2.6%)
Adjusted Net Income	(3431.0%)	(980.6%)	(61.4%)	3.4%	(32.2%)	(30.3%)	(13.7%)	(3.2%)	(16.0%)	(2.6%)
EPS (CHF)	(2374.3%)	(548.6%)	(45.0%)	0.6%	(31.7%)	(21.7%)	(14.8%)	(2.4%)	(14.9%)	(1.8%)
Adjusted EPS (CHF)	(3126.2%)	(839.8%)	(46.6%)	4.6%	(32.1%)	(24.0%)	(13.1%)	(2.4%)	(15.1%)	(1.9%)

Source: Jefferies estimates; company data

Exhibit 47 - Inventiva Profit and Loss Model

(EUR millions except EPS Dec YE)	2019E							
	2018A	1H19A	2H19E	2019E	2020E	2021E	2022E	2023E
Revenue	3.2	1.3	4.7	6.1	2.0	1.6	1.3	0.0
Cost of Sales	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Gross Profit	3.2	1.3	4.7	6.1	2.0	1.6	1.3	0.0
Total Operating Expenses	(37.9)	(22.9)	(24.9)	(47.8)	(40.0)	(32.7)	(31.8)	(30.2)
Sales & Marketing Expenses	(0.2)	(0.1)	(0.1)	(0.2)	(0.2)	(0.3)	(0.3)	(0.3)
General & Admin. Expenses	(6.0)	(3.1)	(3.2)	(6.3)	(6.7)	(7.0)	(7.3)	(7.7)
R&D Expenses	(31.6)	(19.6)	(21.6)	(41.3)	(33.0)	(25.4)	(24.2)	(22.2)
o/w Acquisition-related Amortisation/Write-down	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Other Operating Income	4.9	2.2	2.3	4.5	4.0	3.6	3.2	2.9
Operating Exceptionals	(3.4)	(1.3)	(0.1)	(1.4)	0.0	0.0	0.0	0.0
Operating Income	(33.3)	(20.7)	(18.0)	(38.7)	(34.0)	(27.5)	(27.3)	(27.3)
Adjusted Operating Income	(29.9)	(19.4)	(17.9)	(37.3)	(34.0)	(27.5)	(27.3)	(27.3)
Net Financial Income	(0.1)	0.1	0.3	0.5	(0.4)	(2.0)	(4.5)	(7.0)
Exceptionals	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Income from Associates & JVs	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Pretax Profit	(33.4)	(20.5)	(17.7)	(38.2)	(34.4)	(29.5)	(31.8)	(34.3)
Adjusted Pretax Profit	(30.0)	(19.3)	(17.6)	(36.8)	(34.4)	(29.5)	(31.8)	(34.3)
Taxation	(0.3)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Minority Interests	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Net Income from Continuing Operations	(33.6)	(20.5)	(17.7)	(38.2)	(34.4)	(29.5)	(31.8)	(34.3)
Net Income from Discontinued Operations	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Net Income	(33.6)	(20.5)	(17.7)	(38.2)	(34.4)	(29.5)	(31.8)	(34.3)
Adjusted Net Income	(30.2)	(19.3)	(17.6)	(36.8)	(34.4)	(29.5)	(31.8)	(34.3)
WA Basic Shares (mn)	20.5	22.2	24.5	23.4	26.9	27.1	27.3	27.5
WA Shares Diluted (mn)	20.5	22.2	24.5	23.4	26.9	27.1	27.3	27.5
EPS (EUR)	(1.6)	(0.9)	(0.7)	(1.6)	(1.3)	(1.1)	(1.2)	(1.2)
Adjusted EPS (EUR)	(1.5)	(0.9)	(0.7)	(1.6)	(1.3)	(1.1)	(1.2)	(1.2)
Diluted EPS (EUR)	(1.6)	(0.9)	(0.7)	(1.6)	(1.3)	(1.1)	(1.2)	(1.2)
Diluted Adjusted EPS (EUR)	(1.5)	(0.9)	(0.7)	(1.6)	(1.3)	(1.1)	(1.2)	(1.2)
Dividends Paid and Proposed	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Dividends per Share Interim/Final (EUR)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
% Change Year over Year								
Revenue	(51.0%)	(4.9%)	163.1%	89.5%	(67.0%)	(20.0%)	(20.0%)	(100.0%)
Cost of Sales	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Gross Profit	(51.0%)	(4.9%)	163.1%	89.5%	(67.0%)	(20.0%)	(20.0%)	(100.0%)
Total Operating Expenses	17.9%	20.0%	32.5%	26.2%	(16.5%)	(18.1%)	(2.6%)	(5.1%)
Sales & Marketing Expenses	(36.2%)	25.7%	(13.9%)	5.0%	5.0%	5.0%	5.0%	5.0%
General & Admin. Expenses	19.4%	2.5%	7.6%	5.0%	5.0%	5.0%	5.0%	5.0%
R&D Expenses	18.3%	23.4%	37.6%	30.4%	(19.9%)	(23.0%)	(4.8%)	(8.2%)
Operating Income	(59.0%)	(28.5%)	(5.0%)	(16.4%)	12.2%	19.0%	0.7%	0.0%
Adjusted Operating Income	(45.9%)	(29.8%)	(20.0%)	(24.9%)	8.9%	19.0%	0.7%	0.0%
Net Financial Income	(139.9%)	195.6%	6534.1%	505.4%	(188.9%)	(400.0%)	(125.0%)	(55.6%)
Pretax Profit	(61.7%)	(26.9%)	(3.1%)	(14.6%)	10.2%	14.1%	(7.8%)	(7.8%)
Adjusted Pretax Profit	(48.4%)	(28.0%)	(17.8%)	(22.9%)	6.7%	14.1%	(7.8%)	(7.8%)
Net Income	(95.1%)	(27.1%)	(1.4%)	(13.8%)	10.2%	14.1%	(7.8%)	(7.8%)
Adjusted Net Income	(80.1%)	(28.2%)	(15.6%)	(21.9%)	6.7%	14.1%	(7.8%)	(7.8%)
EPS (EUR)	(47.4%)	(8.1%)	14.9%	0.0%	21.8%	14.9%	(7.1%)	(7.1%)
Adjusted EPS (EUR)	(36.1%)	(9.1%)	3.0%	(7.1%)	18.9%	14.9%	(7.1%)	(7.1%)

Source: Jefferies estimates; company data

Exhibit 48 - Ipsen Profit and Loss Model

(EUR millions except EPS Dec YE)	2019E							
	2018A	1H19A	2H19E	2019E	2020E	2021E	2022E	2023E
Product Sales	2,224.8	1,229.6	1,354.5	2,584.1	2,865.5	3,061.5	3,134.9	3,240.0
Other Revenues	123.6	63.3	46.4	109.7	107.9	108.6	103.4	102.5
Revenue	2,348.4	1,292.9	1,400.9	2,693.8	2,973.4	3,170.1	3,238.3	3,342.5
Cost of Sales	(454.2)	(236.9)	(265.9)	(502.8)	(550.5)	(595.7)	(638.3)	(682.6)
Gross Profit	1,894.2	1,056.0	1,134.9	2,190.9	2,423.0	2,574.5	2,600.0	2,659.9
Total Operating Expenses	(1,328.3)	(707.4)	(774.6)	(1,482.0)	(1,626.7)	(1,746.8)	(1,781.1)	(1,823.5)
Sales & Marketing Expenses	(787.4)	(399.7)	(443.3)	(843.0)	(893.6)	(924.9)	(940.4)	(959.2)
General & Admin. Expenses	(165.7)	(90.4)	(97.6)	(188.0)	(197.7)	(207.6)	(209.4)	(213.2)
R&D Expenses	(302.1)	(176.3)	(195.7)	(372.0)	(421.2)	(453.1)	(467.1)	(486.0)
Acquisition-related Amortisation/Write-downs	(73.1)	(41.0)	(38.0)	(79.0)	(114.1)	(161.3)	(164.2)	(165.1)
Other Operating Income	20.8	(2.0)	6.0	4.0	4.3	4.6	4.9	5.2
Operating Exceptionals	(67.3)	(28.7)	0.0	(28.7)	0.0	0.0	0.0	0.0
Operating Income	519.4	317.9	366.3	684.2	800.6	832.2	823.8	841.7
<i>Pre-amortisation Operating Income</i>	<i>592.5</i>	<i>358.9</i>	<i>404.3</i>	<i>763.2</i>	<i>914.7</i>	<i>993.5</i>	<i>988.0</i>	<i>1,006.7</i>
Adjusted Operating Income	659.8	387.6	404.3	791.9	914.7	993.5	988.0	1,006.7
Net Financial Income	(25.4)	(18.8)	(14.4)	(33.2)	(19.5)	(13.5)	(5.5)	6.0
Exceptionals	0.0	(16.1)	0.0	(16.1)	0.0	0.0	0.0	0.0
Income from Associates & JVs	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Pretax Profit	494.0	283.0	351.9	634.9	781.1	818.7	818.3	847.7
Adjusted Pretax Profit	634.4	368.8	389.9	758.7	895.2	980.0	982.5	1,012.7
Taxation	(108.1)	(67.9)	(69.9)	(137.8)	(169.5)	(177.7)	(177.6)	(183.9)
Share of Profit/(Loss) from Associates	1.1	1.4	0.5	1.9	1.5	1.5	1.5	1.5
Minority Interests	0.4	(0.5)	0.9	0.4	0.4	0.4	0.4	0.5
Net Income from Continuing Operations	387.4	216.0	283.4	499.4	613.5	643.0	642.7	665.7
Net Income from Discontinued Operations	2.0	4.1	(3.1)	1.0	1.1	1.1	1.2	1.2
Net Income	389.5	220.1	280.3	500.4	614.6	644.1	643.8	666.9
<i>Pre-amortisation Net Income</i>	<i>442.6</i>	<i>250.1</i>	<i>307.7</i>	<i>557.8</i>	<i>697.4</i>	<i>761.2</i>	<i>763.0</i>	<i>786.7</i>
Adjusted Net Income	491.7	282.5	309.4	591.9	696.4	760.1	761.9	785.5
WA Basic Shares (mn)	82.9	83.1	83.0	83.0	83.4	83.7	84.0	84.3
WA Shares Diluted (mn)	83.2	83.5	83.4	83.4	83.8	84.1	84.4	84.7
EPS (EUR)	4.70	2.65	3.38	6.03	7.37	7.69	7.66	7.91
Adjusted EPS (EUR)	5.93	3.40	3.73	7.13	8.35	9.08	9.07	9.32
<i>Diluted EPS (EUR)</i>	<i>4.68</i>	<i>2.64</i>	<i>3.36</i>	<i>6.00</i>	<i>7.33</i>	<i>7.66</i>	<i>7.63</i>	<i>7.87</i>
Diluted Adjusted EPS (EUR)	5.91	3.38	3.71	7.10	8.31	9.04	9.03	9.27
Dividends Paid and Proposed	(83.5)			(83.8)	(92.5)	(97.5)	(102.7)	(108.2)
Dividends per Share Interim/Final (EUR)	1.00			1.00	1.10	1.16	1.21	1.27
% Change Year over Year								
Revenue	16.7%	14.9%	14.5%	14.7%	10.4%	6.6%	2.2%	3.2%
Cost of Sales	17.8%	9.5%	11.8%	10.7%	9.5%	8.2%	7.2%	6.9%
Gross Profit	16.5%	16.2%	15.2%	15.7%	10.6%	6.3%	1.0%	2.3%
Total Operating Expenses	13.0%	11.6%	11.5%	11.6%	9.8%	7.4%	2.0%	2.4%
Sales & Marketing Expenses	10.0%	5.0%	9.0%	7.1%	6.0%	3.5%	1.7%	2.0%
General & Admin. Expenses	17.7%	15.5%	11.7%	13.5%	5.2%	5.0%	0.9%	1.8%
R&D Expenses	13.7%	24.5%	21.9%	23.1%	13.2%	7.6%	3.1%	4.0%
Operating Income	30.7%	17.9%	46.7%	31.7%	17.0%	4.0%	(1.0%)	2.2%
Adjusted Operating Income	31.0%	20.2%	19.9%	20.0%	15.5%	8.6%	(0.6%)	1.9%
Pretax Profit	33.2%	10.3%	48.2%	28.5%	23.0%	4.8%	(0.1%)	3.6%
Adjusted Pretax Profit	33.0%	19.2%	19.9%	19.6%	18.0%	9.5%	0.3%	3.1%
Net Income	43.0%	11.4%	46.0%	28.5%	22.8%	4.8%	(0.0%)	3.6%
Adjusted Net Income	35.8%	19.1%	21.6%	20.4%	17.7%	9.1%	0.2%	3.1%
EPS (EUR)	42.4%	10.8%	45.9%	28.4%	22.1%	4.4%	(0.4%)	3.2%
Adjusted EPS (EUR)	35.2%	18.4%	21.5%	20.3%	17.0%	8.8%	(0.1%)	2.7%

Source: Jefferies estimates; company data

Exhibit 49 - Lonza Profit and Loss Model

(CHF millions except EPS Dec YE)	2019E							
	2018A	1H19A	2H19E	2019E	2020E	2021E	2022E	2023E
Sales	6,058	3,050	2,927	5,977	6,305	6,925	7,519	8,073
Continuing Operations	5,542	2,976	2,927	5,903	6,305	6,925	7,519	8,073
Discontinued Operations	516	74	0	74	0	0	0	0
Cost of Sales	(3,733)	(1,858)	(1,808)	(3,666)	(3,850)	(4,170)	(4,473)	(4,754)
Continuing Operations	(3,363)	(1,800)	(1,808)	(3,608)	(3,850)	(4,170)	(4,473)	(4,754)
Discontinued Operations	(370)	(58)	0	(58)	0	0	0	0
Gross Profit	2,325	1,192	1,120	2,312	2,455	2,755	3,046	3,319
Total Operating Expenses	(1,387)	(621)	(600)	(1,221)	(1,246)	(1,335)	(1,406)	(1,483)
Marketing & Distribution Expenses	(344)	(184)	(175)	(359)	(372)	(402)	(429)	(456)
R&D Expenses	(110)	(55)	(56)	(111)	(120)	(134)	(147)	(159)
General & Admin. Expenses	(699)	(360)	(369)	(729)	(753)	(800)	(831)	(868)
Expenses for Discontinued Operations	(234)	(22)	0	(22)	0	0	0	0
Other Operating Income & Expenses	(25)	(20)	(10)	(30)	(32)	(35)	(38)	(41)
o/w Acquisition-related Amortisation in Expenses	(164)	(86)	(86)	(172)	(172)	(172)	(172)	(172)
Operating Exceptionals	(159)	(48)	0	(48)	0	0	0	0
Pharma Biotech & Nutrition EBIT	841	497	449	946	1,029	1,204	1,392	1,566
Specialty Ingredients EBIT	179	84	82	166	211	237	267	284
Other EBIT	(178)	(72)	(21)	(93)	(64)	(57)	(57)	(55)
Discontinued Operations EBIT	(88)	(6)	0	(6)	0	0	0	0
Operating Income	754	503	510	1,013	1,177	1,385	1,602	1,795
Operating Income from Continuing Ops	842	509	510	1,019	1,177	1,385	1,602	1,795
Pharma Biotech & Nutrition Adj EBITDA	1,020	571	520	1,091	1,171	1,346	1,534	1,708
Specialty Ingredients Adj EBIT	227	124	97	221	241	267	297	314
Other Adj EBIT	(82)	(52)	(21)	(73)	(64)	(57)	(57)	(55)
Adjusted Operating Income	1,165	643	596	1,239	1,349	1,557	1,774	1,967
<i>Pharma Biotech & Nutrition Adj EBITDA</i>	<i>1,246</i>	<i>693</i>	<i>661</i>	<i>1,354</i>	<i>1,469</i>	<i>1,672</i>	<i>1,887</i>	<i>2,088</i>
<i>Specialty Ingredients Adj EBITDA</i>	<i>303</i>	<i>163</i>	<i>136</i>	<i>299</i>	<i>325</i>	<i>355</i>	<i>390</i>	<i>412</i>
EBITDA	1,264	774	796	1,570	1,779	2,024	2,277	2,506
Adjusted EBITDA	1,511	828	796	1,624	1,779	2,024	2,277	2,506
Net Financial Income	(67)	(63)	(49)	(112)	(83)	(73)	(58)	(41)
Income from Associates & JVs	(1)	(3)	0	(3)	(1)	(1)	(1)	(1)
Financial Exceptionals	32	(4)	0	(4)	0	0	0	0
Pretax Profit from Continuing Ops	807	442	461	903	1,094	1,311	1,544	1,754
Adjusted Pretax Profit	1,100	583	547	1,130	1,266	1,483	1,716	1,926
Taxation	(148)	(49)	(103)	(152)	(228)	(267)	(309)	(347)
Minority Interests	(4)	(1)	(3)	(4)	(4)	(4)	(4)	(5)
Net Income from Continuing Operations	655	392	355	747	862	1,040	1,230	1,403
Net Income from Discontinued Operations	(96)	(93)	0	(93)	0	0	0	0
Net Income	559	299	355	654	862	1,040	1,230	1,403
Adjusted Net Income	895	520	422	942	1,003	1,181	1,371	1,544
Lonza Core Net Income (ex-Associates)	891	533	411	944	1,003	1,181	1,371	1,544
WA Basic Shares (mn)	74.4	74.1	74.8	74.8	75.4	76.0	76.6	77.2
WA Shares Diluted (mn)	74.7	74.5	75.2	75.2	75.8	76.4	77.0	77.6
EPS (CHF)	7.51	4.03	4.75	8.75	11.43	13.69	16.07	18.18
Adjusted EPS (CHF)	12.03	7.02	5.64	12.60	13.30	15.55	17.91	20.01
Lonza Core (ex-Associates) EPS (CHF)	11.97	7.19	5.50	12.63	13.30	15.55	17.91	20.01
<i>Diluted EPS (CHF)</i>	<i>7.48</i>	<i>4.01</i>	<i>4.72</i>	<i>8.70</i>	<i>11.37</i>	<i>13.62</i>	<i>15.99</i>	<i>18.08</i>
Diluted Adjusted EPS (CHF)	11.98	6.98	5.61	12.53	13.23	15.47	17.82	19.90
Diluted Lonza Core EPS (CHF)	11.92	7.15	5.47	12.56	13.23	15.47	17.82	19.90
Dividends per Share Interim/Final (CHF)	2.75			2.85	3.00	3.70	4.50	5.25
% Change Year over Year								
Sales	19.5%	(0.9%)	(1.7%)	(1.3%)	5.5%	9.8%	8.6%	7.4%
Cost of Sales	18.8%	(1.2%)	(2.4%)	(1.8%)	5.0%	8.3%	7.3%	6.3%
Gross Profit	20.5%	(0.5%)	(0.7%)	(0.6%)	6.2%	12.2%	10.6%	9.0%
Total Operating Expenses	29.5%	(3.7%)	(19.1%)	(12.0%)	2.0%	7.2%	5.3%	5.4%
Operating Income	7.6%	(3.1%)	116.8%	34.3%	16.2%	17.7%	15.7%	12.1%
Adjusted Operating Income	24.5%	7.0%	5.6%	6.3%	8.9%	15.4%	13.9%	10.9%
EBITDA	13.7%	0.8%	60.6%	24.2%	13.3%	13.8%	12.5%	10.1%
Adjusted EBITDA	21.6%	7.7%	7.3%	7.5%	9.5%	13.8%	12.5%	10.1%
Pretax Profit from Continuing Ops	44.4%	(7.7%)	40.4%	11.8%	21.2%	19.9%	17.7%	13.6%
Adjusted Pretax Profit	30.5%	0.0%	5.7%	2.7%	12.0%	17.2%	15.6%	12.3%
Net Income	(20.6%)	(25.8%)	127.6%	17.0%	31.7%	20.7%	18.3%	14.0%
Adjusted Net Income	14.5%	9.9%	0.0%	5.3%	6.4%	17.8%	16.1%	12.6%
EPS (CHF)	(27.6%)	(25.5%)	126.5%	16.4%	30.7%	19.8%	17.4%	13.1%
Adjusted EPS (CHF)	4.4%	10.4%	(0.5%)	4.7%	5.6%	16.9%	15.2%	11.7%
Diluted Adjusted EPS (CHF)	4.9%	10.4%	(0.6%)	4.6%	5.6%	16.9%	15.2%	11.7%

Source: Jefferies estimates; company data

Exhibit 50 - Lundbeck Profit and Loss Model

(DKK millions except EPS Dec YE)	2019E									
	2018A	1Q19A	2Q19A	3Q19A	4Q19E	2019E	2020E	2021E	2022E	2023E
Pharmaceuticals Sales	17,213	4,046	4,151	4,179	4,148	16,524	17,533	17,277	17,968	19,827
Revenue	18,117	4,234	4,246	4,135	4,279	16,894	18,538	18,017	18,731	20,605
o/w Revenue Classified as Non-Core	0	0	0	0	0	0	0	0	0	0
Cost of Sales	(3,456)	(825)	(815)	(796)	(873)	(3,309)	(3,986)	(3,732)	(3,995)	(4,068)
o/w Acquisition-related Amortisation	(499)	(130)	(133)	(134)	(133)	(530)	(980)	(650)	(800)	(800)
o/w Amortised Costs to Otsuka & Other	(314)	(80)	(81)	(80)	(81)	(322)	(322)	(378)	(378)	(199)
Gross Profit	14,661	3,409	3,431	3,339	3,405	13,584	14,552	14,285	14,736	16,537
Total Operating Expenses	(9,316)	(2,209)	(2,326)	(2,272)	(2,678)	(9,485)	(11,770)	(11,753)	(11,870)	(12,106)
Distribution Costs	(5,277)	(1,273)	(1,371)	(1,333)	(1,568)	(5,545)	(6,640)	(6,824)	(6,893)	(7,035)
Administrative Expenses	(762)	(188)	(206)	(210)	(231)	(835)	(928)	(937)	(947)	(956)
R&D Expenses	(3,277)	(748)	(749)	(729)	(879)	(3,105)	(4,201)	(3,991)	(4,031)	(4,114)
o/w Acquisition-related Amortisation/Write-down	0	0	0	0	0	0	0	0	0	0
Other Operating Income/(Expenses)	0	0	0	0	0	0	0	0	0	0
Operating Exceptionals	(44)	0	0	(55)	(525)	(580)	(75)	0	0	0
Operating Income	5,301	1,200	1,105	1,012	202	3,519	2,708	2,532	2,866	4,432
Adjusted Operating Income	5,844	1,330	1,238	1,201	860	4,629	3,763	3,182	3,666	5,232
Core EBIT	6,158	1,410	1,319	1,281	941	4,951	4,085	3,560	4,043	5,431
EBITDA	6,484	1,495	1,403	1,318	516	4,732	4,356	3,879	4,378	5,782
Income from Associates & JVs	0	0	0	0	0	0	0	0	0	0
Net Financial Income	(12)	31	(27)	18	(67)	(45)	(160)	(145)	(120)	(75)
Exceptionals	0	0	0	0	0	0	0	0	0	0
Pretax Profit	5,289	1,231	1,078	1,030	135	3,474	2,548	2,387	2,746	4,357
Adjusted Pretax Profit	5,832	1,361	1,211	1,219	793	4,584	3,603	3,037	3,546	5,157
Taxation	(1,382)	(333)	(290)	(279)	(45)	(947)	(683)	(633)	(659)	(1,046)
Minority Interests	0	0	0	0	0	0	0	0	0	0
Net Income from Continuing Operations	3,907	898	788	751	91	2,528	1,865	1,755	2,087	3,311
Net Income from Discontinued Operations	0	0	0	0	0	0	0	0	0	0
Net Income	3,907	898	788	751	91	2,528	1,865	1,755	2,087	3,311
Adjusted Net Income	4,421	1,014	906	917	574	3,411	2,792	2,333	2,799	4,023
Core Net Income	4,711	1,088	981	991	649	3,709	3,090	2,683	3,148	4,207
WA Basic Shares (mn)	198.7	198.7	198.8	198.7	198.7	198.8	199.0	199.3	199.5	199.8
WA Shares Diluted (mn)	198.7	198.8	198.9	198.8	198.8	198.9	199.1	199.4	199.6	199.9
EPS (DKK)	19.67	4.52	3.96	3.78	0.46	12.71	9.37	8.80	10.46	16.57
Adjusted EPS (DKK)	22.25	5.10	4.56	4.62	2.89	17.16	14.03	11.71	14.03	20.14
Core EPS (DKK)	23.71	5.48	4.93	4.99	3.27	18.65	15.52	13.46	15.78	21.06
Diluted EPS (DKK)	19.66	4.52	3.96	3.78	0.46	12.71	9.36	8.80	10.45	16.56
Diluted Adjusted EPS (DKK)	22.24	5.10	4.56	4.61	2.89	17.15	14.02	11.70	14.02	20.13
Dividends per Share Interim/Final (DKK)	12.00					5.00	4.75	4.50	5.25	8.25
% Change Year over Year										
Revenue	5.1%	(7.7%)	(9.7%)	(10.7%)	2.0%	(6.8%)	9.7%	(2.8%)	4.0%	10.0%
Cost of Sales	(11.0%)	(0.1%)	(7.9%)	(11.1%)	2.7%	(4.2%)	20.4%	(6.4%)	7.0%	1.8%
Gross Profit	9.8%	(9.3%)	(10.1%)	(10.7%)	1.8%	(7.3%)	7.1%	(1.8%)	3.2%	12.2%
Total Operating Expenses	1.4%	2.7%	3.1%	(0.8%)	2.3%	1.8%	24.1%	(0.1%)	1.0%	2.0%
Distribution Costs	(6.6%)	(1.0%)	5.0%	3.5%	12.2%	5.1%	19.8%	2.8%	1.0%	2.1%
Administrative Expenses	(8.5%)	22.9%	9.0%	12.9%	(1.3%)	9.6%	11.1%	1.0%	1.0%	1.0%
R&D Expenses	21.1%	5.1%	(1.4%)	(10.8%)	(11.0%)	(5.2%)	35.3%	(5.0%)	1.0%	2.1%
Operating Income	20.3%	(27.5%)	(18.1%)	(30.1%)	(76.1%)	(33.6%)	(23.1%)	(6.5%)	13.2%	54.6%
Adjusted Operating Income	21.8%	(23.6%)	(26.4%)	(23.5%)	0.9%	(20.8%)	(18.7%)	(15.4%)	15.2%	42.7%
Core EBIT	20.4%	(22.4%)	(25.1%)	(22.3%)	1.1%	(19.6%)	(17.5%)	(12.8%)	13.6%	34.3%
Net Financial Income	90.8%	346.0%	(242.1%)	1000.0%	(308.5%)	(275.0%)	(255.6%)	9.4%	17.2%	37.5%
Pretax Profit	23.7%	(25.1%)	(21.3%)	(28.7%)	(83.7%)	(34.3%)	(26.7%)	(6.3%)	15.0%	58.7%
Adjusted Pretax Profit	25.0%	(21.2%)	(28.8%)	(22.3%)	(5.1%)	(21.4%)	(21.4%)	(15.7%)	16.7%	45.4%
Taxation	(16.4%)	(25.0%)	(21.6%)	(28.5%)	(74.9%)	(31.5%)	(27.9%)	(7.3%)	4.2%	58.7%
Net Income	48.9%	(25.1%)	(21.1%)	(28.8%)	(86.1%)	(35.3%)	(26.2%)	(5.9%)	18.9%	58.7%
Adjusted Net Income	49.1%	(20.7%)	(30.5%)	(21.3%)	(14.6%)	(22.8%)	(18.2%)	(16.4%)	20.0%	43.7%
EPS (DKK)	48.0%	(25.0%)	(21.2%)	(28.7%)	(86.1%)	(35.4%)	(26.3%)	(6.0%)	18.8%	58.5%
Adjusted EPS (DKK)	48.2%	(20.6%)	(30.5%)	(21.2%)	(14.4%)	(22.9%)	(18.2%)	(16.5%)	19.8%	43.6%
Core EPS (DKK)	43.7%	(19.3%)	(28.8%)	(19.8%)	(12.6%)	(21.3%)	(16.8%)	(13.3%)	17.2%	33.5%

Source: Jefferies estimates; company data

Exhibit 51 - Nanobiotix Profit and Loss Model

(EUR millions except EPS Dec YE)	2019E							
	2018A	1H19A	2H19E	2019E	2020E	2021E	2022E	2023E
Revenue	3.5	1.8	2.0	3.8	8.9	10.4	19.1	40.6
Cost of Sales	0.0	0.0	0.0	0.0	0.0	(0.2)	(1.3)	(3.8)
Gross Profit	3.5	1.8	2.0	3.8	8.9	10.2	17.8	36.7
Total Operating Expenses	(33.5)	(22.3)	(20.8)	(43.1)	(47.7)	(52.8)	(69.2)	(91.3)
SG&A Expenses (incl. Share Payments)	(12.7)	(8.9)	(7.1)	(16.0)	(19.0)	(22.4)	(36.9)	(57.1)
R&D Expenses	(20.9)	(13.4)	(13.7)	(27.1)	(28.7)	(30.4)	(32.3)	(34.2)
o/w Acquisition-related Amortisation/Write-down	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Other Operating Income	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Operating Exceptionals	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Operating Income	(30.1)	(20.5)	(18.8)	(39.3)	(38.8)	(42.6)	(51.4)	(54.5)
Adjusted Operating Income	(30.1)	(20.5)	(18.8)	(39.3)	(38.8)	(42.6)	(51.4)	(54.5)
Net Financial Income	(0.3)	(3.5)	(0.7)	(4.2)	(2.4)	(4.0)	(6.9)	(11.4)
Exceptionals	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Income from Associates & JVs	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Pretax Profit	(30.3)	(23.9)	(19.5)	(43.5)	(41.2)	(46.6)	(58.3)	(65.9)
Adjusted Pretax Profit	(30.3)	(23.9)	(19.5)	(43.5)	(41.2)	(46.6)	(58.3)	(65.9)
Taxation	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Minority Interests	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Net Income from Continuing Operations	(30.3)	(23.9)	(19.5)	(43.5)	(41.2)	(46.6)	(58.3)	(65.9)
Net Income from Discontinued Operations	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Net Income	(30.3)	(23.9)	(19.5)	(43.5)	(41.2)	(46.6)	(58.3)	(65.9)
Adjusted Net Income	(30.3)	(23.9)	(19.5)	(43.5)	(41.2)	(46.6)	(58.3)	(65.9)
WA Basic Shares (mn)	19.6	20.8	21.0	21.0	22.4	22.5	22.7	22.8
WA Shares Diluted (mn)	19.6	20.8	21.0	21.0	22.4	22.5	22.7	22.8
EPS (EUR)	(1.5)	(1.1)	(0.9)	(2.1)	(1.8)	(2.1)	(2.6)	(2.9)
Adjusted EPS (EUR)	(1.5)	(1.1)	(0.9)	(2.1)	(1.8)	(2.1)	(2.6)	(2.9)
Diluted EPS (EUR)	(1.5)	(1.1)	(0.9)	(2.1)	(1.8)	(2.1)	(2.6)	(2.9)
Diluted Adjusted EPS (EUR)	(1.5)	(1.1)	(0.9)	(2.1)	(1.8)	(2.1)	(2.6)	(2.9)
% Change Year over Year								
Revenue	(6.5%)	(11.5%)	41.7%	10.2%	132.3%	17.2%	83.2%	112.0%
Cost of Sales	n/a	n/a	n/a	n/a	n/a	n/a	517.8%	183.3%
Gross Profit	(6.5%)	(11.5%)	41.7%	10.2%	132.3%	14.8%	73.9%	106.6%
Total Operating Expenses	17.1%	48.3%	12.4%	28.5%	10.6%	10.8%	31.0%	31.9%
SG&A Expenses (incl. Share Payments)	2.8%	37.9%	14.5%	26.5%	18.5%	18.0%	64.9%	54.6%
R&D Expenses	27.9%	56.1%	11.3%	29.7%	6.0%	6.0%	6.0%	6.0%
Operating Income	(19.0%)	(57.7%)	(9.9%)	(30.6%)	1.2%	(9.9%)	(20.6%)	(6.1%)
Adjusted Operating Income	(19.0%)	(57.7%)	(9.9%)	(30.6%)	1.2%	(9.9%)	(20.6%)	(6.1%)
Net Financial Income	68.4%	(1051.6%)	(16.9%)	(1416.2%)	42.9%	(66.7%)	(72.5%)	(65.2%)
Pretax Profit	(16.1%)	(89.6%)	(10.2%)	(43.2%)	5.3%	(13.2%)	(25.1%)	(13.1%)
Adjusted Pretax Profit	(16.1%)	(89.6%)	(10.2%)	(43.2%)	5.3%	(13.2%)	(25.1%)	(13.1%)
Net Income	(16.1%)	(89.6%)	(10.2%)	(43.2%)	5.3%	(13.2%)	(25.1%)	(13.1%)
Adjusted Net Income	(16.1%)	(89.6%)	(10.2%)	(43.2%)	5.3%	(13.2%)	(25.1%)	(13.1%)
EPS (EUR)	(3.4%)	(78.6%)	(3.2%)	(34.1%)	11.2%	(12.4%)	(24.3%)	(12.3%)
Adjusted EPS (EUR)	(3.4%)	(78.6%)	(3.2%)	(34.1%)	11.2%	(12.4%)	(24.3%)	(12.3%)

Source: Jefferies estimates; company data

Exhibit 52 - Newron Profit and Loss Model

(EUR millions except EPS Dec YE)	2019E							
	2018A	1H19A	2H19E	2019E	2020E	2021E	2022E	2023E
Xadago (safinamide)	4.0	2.2	3.3	5.5	8.4	12.5	17.2	22.0
Other Revenues	0.0	0.1	2.9	3.0	2.4	107.9	215.7	301.0
Revenue	4.0	2.2	6.2	8.5	10.8	120.4	232.9	323.0
Cost of Sales	0.0	0.0	0.0	0.0	0.0	(11.9)	(23.7)	(33.1)
Gross Profit	4.0	2.2	6.2	8.5	10.8	108.5	209.2	289.9
Total Operating Expenses	(19.0)	(16.7)	(18.4)	(35.1)	(52.6)	(54.4)	(57.5)	(60.6)
R&D Expenses	(9.8)	(10.3)	(12.8)	(23.1)	(28.8)	(23.7)	(20.5)	(18.2)
Marketing & Advertising Expenses	(0.4)	(0.4)	(0.7)	(1.1)	(12.6)	(19.1)	(25.1)	(30.1)
General & Administrative Expenses	(8.8)	(5.9)	(5.0)	(10.9)	(11.2)	(11.6)	(11.9)	(12.3)
Other Operating Income	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Operating Exceptionals	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Operating Income	(15.0)	(14.4)	(12.2)	(26.6)	(41.8)	54.1	151.7	229.2
Adjusted Operating Income	(15.0)	(14.4)	(12.2)	(26.6)	(41.8)	54.1	151.7	229.2
Net Financial Income	(0.0)	0.4	(0.1)	0.4	(1.9)	(2.7)	(2.0)	0.5
Exceptionals	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Pretax Profit	(15.0)	(14.0)	(12.2)	(26.3)	(43.7)	51.4	149.7	229.7
Pre-g/w PTP	(15.0)	(14.0)	(12.2)	(26.3)	(43.7)	51.4	149.7	229.7
Adjusted Pretax Profit	(15.0)	(14.0)	(12.2)	(26.3)	(43.7)	51.4	149.7	229.7
Taxation	(0.0)	(0.0)	0.0	0.0	0.0	0.0	0.0	(57.4)
Minority Interests	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Net Income from Continuing Operations	(15.0)	(14.0)	(12.2)	(26.3)	(43.7)	51.4	149.7	172.3
Net Income from Discontinued Operations	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Net Income	(15.0)	(14.0)	(12.2)	(26.3)	(43.7)	51.4	149.7	172.3
Adjusted Net Income	(15.0)	(14.0)	(12.2)	(26.3)	(43.7)	51.4	149.7	172.3
WA Basic Shares (mn)	17.8	17.8	17.9	17.9	17.9	18.0	18.1	18.2
WA Shares Diluted (mn)	17.8	17.8	17.9	17.9	17.9	18.0	18.1	18.2
EPS (EUR)	(0.84)	(0.79)	(0.68)	(1.47)	(2.44)	2.85	8.25	9.44
Adjusted EPS (EUR)	(0.84)	(0.79)	(0.68)	(1.47)	(2.44)	2.85	8.25	9.44
EPS (CHF)	(0.97)	(0.89)	(0.75)	(1.64)	(2.64)	3.09	8.94	10.24
Adjusted EPS (CHF)	(0.97)	(0.89)	(0.75)	(1.64)	(2.64)	3.09	8.94	10.24
% Change Year over Year								
Revenue	(70.0%)	11.2%	208.4%	110.0%	27.4%	1017.4%	93.5%	38.7%
Cost of Sales	n/a	n/a	n/a	n/a	n/a	n/a	100.0%	39.5%
Gross Profit	(70.0%)	11.2%	208.4%	110.0%	27.4%	907.3%	92.8%	38.6%
Total Operating Expenses	8.4%	73.5%	95.9%	84.6%	49.9%	3.5%	5.7%	5.4%
R&D Expenses	17.8%	104.8%	165.7%	134.5%	24.6%	(17.5%)	(13.8%)	(10.9%)
Marketing & Advertising Expenses	(42.7%)	157.3%	185.7%	173.7%	1035.3%	51.6%	31.4%	19.9%
General & Administrative Expenses	3.4%	34.6%	14.0%	24.4%	3.0%	3.0%	3.0%	3.0%
Operating Income	(244.6%)	(90.0%)	(65.2%)	(77.8%)	(57.1%)	229.3%	180.5%	51.1%
Net Financial Income	95.7%	809.1%	41.2%	953.7%	(642.9%)	(42.1%)	25.9%	125.0%
Pretax Profit	(183.3%)	(85.8%)	(63.9%)	(75.0%)	(66.4%)	217.5%	191.4%	53.5%
Net Income	(184.6%)	(85.3%)	(64.1%)	(74.8%)	(66.4%)	217.5%	191.4%	15.1%
Adjusted Net Income	(198.8%)	(85.3%)	(64.1%)	(74.8%)	(66.4%)	217.5%	191.4%	15.1%
EPS (EUR)	(160.0%)	(85.3%)	(63.8%)	(74.5%)	(65.7%)	216.8%	189.8%	14.5%
Adjusted EPS (EUR)	(172.9%)	(85.3%)	(63.8%)	(74.5%)	(65.7%)	216.8%	189.8%	14.5%

Source: Jefferies estimates; company data

Exhibit 53 - Nordic Nanovector Profit and Loss Model

(NOK millions except EPS Dec YE)	2019E									
	2018A	1Q19A	2Q19A	3Q19A	4Q19E	2019E	2020E	2021E	2022E	2023E
Betalutin Sales	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	196.8	495.4
Other Revenues	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	14.2	35.5
Revenue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	211.0	531.0
Cost of Sales	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	(35.4)	(84.2)
Gross Profit	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	175.6	446.7
<i>Payroll & Related Expenses</i>	(79.2)	(22.4)	(19.7)	(24.4)	(25.5)	(92.0)	(97.5)	(103.4)	(109.6)	(116.1)
<i>Depreciation & Amortisation</i>	(2.3)	(1.1)	(3.5)	(3.6)	(2.5)	(10.7)	(4.0)	(3.9)	(3.0)	(3.2)
<i>Other Operating Expenses</i>	(258.6)	(66.5)	(87.8)	(72.2)	(78.5)	(304.9)	(346.3)	(498.3)	(569.7)	(538.5)
Total Operating Expenses	(351.8)	(92.6)	(114.4)	(101.9)	(111.2)	(420.0)	(459.6)	(616.8)	(692.9)	(667.9)
Sales & Marketing Expenses	0.0	0.0	0.0	0.0	0.0	0.0	(32.4)	(161.9)	(269.9)	(309.7)
General & Admin. Expenses	(93.4)	(23.9)	(28.3)	(21.7)	(26.0)	(100.0)	(106.0)	(112.4)	(119.1)	(126.2)
R&D Expenses	(258.4)	(68.6)	(86.1)	(80.1)	(85.2)	(320.0)	(321.2)	(342.5)	(303.9)	(231.9)
o/w Acquisition-related Amortisation/Write-down	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Other Operating Income	11.8	2.6	3.4	1.7	4.6	12.4	11.8	11.2	10.6	10.1
Operating Exceptionals	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Operating Income	(340.0)	(90.0)	(111.0)	(100.2)	(106.5)	(407.6)	(447.8)	(605.6)	(506.7)	(211.1)
Adjusted Operating Income	(340.0)	(90.0)	(111.0)	(100.2)	(106.5)	(407.6)	(447.8)	(605.6)	(506.7)	(211.1)
Net Financial Income	3.0	(1.4)	0.9	6.5	(0.0)	6.0	2.5	(19.5)	(54.2)	(79.0)
Exceptionals	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Income from Associates & JVs	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Pretax Profit	(337.0)	(91.3)	(110.1)	(93.6)	(106.5)	(401.6)	(445.3)	(625.1)	(560.9)	(290.1)
Adjusted Pretax Profit	(337.0)	(91.3)	(110.1)	(93.6)	(106.5)	(401.6)	(445.3)	(625.1)	(560.9)	(290.1)
Taxation	(0.8)	(0.2)	(0.2)	(0.2)	0.0	(0.6)	0.0	0.0	0.0	0.0
Minority Interests	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Net Income from Continuing Operations	(337.8)	(91.5)	(110.3)	(93.9)	(106.5)	(402.2)	(445.3)	(625.1)	(560.9)	(290.1)
Net Income from Discontinued Operations	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Net Income	(337.8)	(91.5)	(110.3)	(93.9)	(106.5)	(402.2)	(445.3)	(625.1)	(560.9)	(290.1)
Adjusted Net Income	(337.8)	(91.5)	(110.3)	(93.9)	(106.5)	(402.2)	(445.3)	(625.1)	(560.9)	(290.1)
WA Basic Shares (mn)	49.1	52.8	54.8	55.1	62.5	56.3	66.4	66.6	66.9	67.1
WA Shares Diluted (mn)	49.1	52.8	54.8	55.1	62.5	56.3	66.4	66.6	66.9	67.1
EPS (NOK)	(6.9)	(1.7)	(2.0)	(1.7)	(1.7)	(7.1)	(6.7)	(9.4)	(8.4)	(4.3)
Adjusted EPS (NOK)	(6.9)	(1.7)	(2.0)	(1.7)	(1.7)	(7.1)	(6.7)	(9.4)	(8.4)	(4.3)
Diluted EPS (NOK)	(6.9)	(1.7)	(2.0)	(1.7)	(1.7)	(7.1)	(6.7)	(9.4)	(8.4)	(4.3)
Diluted Adjusted EPS (NOK)	(6.9)	(1.7)	(2.0)	(1.7)	(1.7)	(7.1)	(6.7)	(9.4)	(8.4)	(4.3)
% Change Year over Year										
Revenue	(100.0%)	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	151.7%
Cost of Sales	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	137.8%
Gross Profit	(100.0%)	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	154.5%
<i>Payroll & Related Expenses</i>	(1.7%)	47.9%	(0.4%)	15.3%	10.2%	16.1%	6.0%	6.0%	6.0%	6.0%
<i>Other Operating Expenses</i>	10.1%	(0.2%)	36.7%	30.9%	8.1%	17.9%	13.6%	43.9%	14.3%	(5.5%)
Total Operating Expenses	6.3%	9.3%	32.5%	27.7%	10.0%	19.4%	9.4%	34.2%	12.3%	(3.6%)
Sales & Marketing Expenses	n/a	n/a	n/a	n/a	n/a	n/a	n/a	400.0%	66.7%	14.8%
General & Admin. Expenses	(12.5%)	8.7%	(1.0%)	(2.5%)	26.9%	7.1%	6.0%	6.0%	6.0%	6.0%
R&D Expenses	15.2%	9.5%	49.1%	39.4%	5.8%	23.8%	0.4%	6.6%	(11.3%)	(23.7%)
Operating Income	(7.4%)	(9.3%)	(31.3%)	(30.2%)	(10.6%)	(19.9%)	(9.9%)	(35.2%)	16.3%	58.3%
Adjusted Operating Income	(7.4%)	(9.3%)	(31.3%)	(30.2%)	(10.6%)	(19.9%)	(9.9%)	(35.2%)	16.3%	58.3%
Net Financial Income	(86.8%)	83.2%	(55.3%)	323.9%	(100.0%)	97.3%	(58.3%)	(880.0%)	(177.9%)	(45.8%)
Pretax Profit	(14.8%)	(0.9%)	(33.4%)	(24.2%)	(20.4%)	(19.2%)	(10.9%)	(40.4%)	10.3%	48.3%
Adjusted Pretax Profit	(14.8%)	(0.9%)	(33.4%)	(24.2%)	(20.4%)	(19.2%)	(10.9%)	(40.4%)	10.3%	48.3%
Net Income	(15.0%)	(0.9%)	(33.2%)	(24.3%)	(20.0%)	(19.1%)	(10.7%)	(40.4%)	10.3%	48.3%
Adjusted Net Income	(15.0%)	(0.9%)	(33.2%)	(24.3%)	(20.0%)	(19.1%)	(10.7%)	(40.4%)	10.3%	48.3%
EPS (NOK)	(14.8%)	6.3%	(19.2%)	(10.7%)	5.4%	(3.9%)	6.1%	(39.9%)	10.6%	48.5%
Adjusted EPS (NOK)	(14.8%)	6.3%	(19.2%)	(10.7%)	5.4%	(3.9%)	6.1%	(39.9%)	10.6%	48.5%

Source: Jefferies estimates; company data

Exhibit 54 - Oncopeptides Profit and Loss Model

(SEK millions except EPS Dec YE)	2019E									
	2018A	1Q19A	2Q19A	3Q19A	4Q19E	2019E	2020E	2021E	2022E	2023E
melflufen Revenue	0.0	0.0	0.0	0.0	0.0	0.0	28.1	950.8	1,561.8	2,262.0
License Revenue	0.0	0.0	0.0	0.0	0.0	0.0	234.7	234.7	0.0	0.0
Revenue	0.0	0.0	0.0	0.0	0.0	0.0	262.9	1,185.6	1,561.8	2,262.0
Cost of Sales	0.0	0.0	0.0	0.0	0.0	0.0	(2.8)	(85.4)	(131.2)	(174.7)
Gross Profit	0.0	0.0	0.0	0.0	0.0	0.0	260.1	1,100.2	1,430.6	2,087.3
Total Operating Expenses	(420.1)	(136.0)	(175.0)	(205.7)	(194.2)	(710.9)	(718.0)	(718.0)	(722.1)	(755.8)
R&D Expenses	(313.7)	(106.8)	(132.6)	(152.0)	(148.6)	(540.0)	(380.6)	(289.3)	(207.0)	(215.3)
Marketing & Distribution Expenses	(51.1)	(17.9)	(26.4)	(26.9)	(27.7)	(98.9)	(259.6)	(346.2)	(427.7)	(447.9)
General & Admin. Expenses	(55.3)	(11.3)	(16.0)	(26.8)	(17.9)	(72.0)	(77.8)	(82.4)	(87.4)	(92.6)
o/w Acquisition-related Amortisation/Write-down	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Other Operating Income	9.2	2.2	3.3	16.1	2.4	24.0	0.0	0.0	0.0	0.0
Operating Exceptionals	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Operating Income	(411.0)	(133.8)	(171.7)	(189.6)	(191.7)	(686.9)	(457.9)	382.2	708.5	1,331.5
Adjusted Operating Income	(411.0)	(133.8)	(171.7)	(189.6)	(191.7)	(686.9)	(457.9)	382.2	708.5	1,331.5
Net Financial Income	(0.0)	(0.1)	(0.1)	(0.1)	(0.1)	(0.5)	2.5	4.0	11.5	29.5
Exceptionals	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Income from Associates & JVs	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Pretax Profit	(411.0)	(133.9)	(171.9)	(189.7)	(191.9)	(687.4)	(455.4)	386.2	720.0	1,361.0
Adjusted Pretax Profit	(411.0)	(133.9)	(171.9)	(189.7)	(191.9)	(687.4)	(455.4)	386.2	720.0	1,361.0
Taxation	(0.1)	(0.1)	(0.1)	(0.1)	0.1	(0.2)	0.0	0.0	0.0	(285.8)
Minority Interests	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Net Income from Continuing Operations	(411.1)	(134.1)	(171.9)	(189.8)	(191.8)	(687.6)	(455.4)	386.2	720.0	1,075.2
Net Income from Discontinued Operations	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Net Income	(411.1)	(134.1)	(171.9)	(189.8)	(191.8)	(687.6)	(455.4)	386.2	720.0	1,075.2
Adjusted Net Income	(411.1)	(134.1)	(171.9)	(189.8)	(191.8)	(687.6)	(455.4)	386.2	720.0	1,075.2
WA Basic Shares (mn)	42.9	47.5	48.8	54.0	55.2	51.4	55.3	55.6	55.8	56.1
WA Shares Diluted (mn)	42.9	47.5	48.8	54.0	55.2	51.4	55.3	58.2	58.5	58.7
EPS (SEK)	(9.6)	(2.8)	(3.5)	(3.5)	(3.5)	(13.4)	(8.2)	6.9	12.9	19.2
Adjusted EPS (SEK)	(9.6)	(2.8)	(3.5)	(3.5)	(3.5)	(13.4)	(8.2)	6.9	12.9	19.2
Diluted EPS (SEK)	(9.6)	(2.8)	(3.5)	(3.5)	(3.5)	(13.4)	(8.2)	6.6	12.3	18.3
Diluted Adjusted EPS (SEK)	(9.6)	(2.8)	(3.5)	(3.5)	(3.5)	(13.4)	(8.2)	6.6	12.3	18.3
% Change Year over Year										
Revenue	n/a	n/a	n/a	n/a	n/a	n/a	n/a	351.0%	31.7%	44.8%
Cost of Sales	n/a	n/a	n/a	n/a	n/a	n/a	n/a	2936.3%	53.6%	33.1%
Gross Profit	n/a	n/a	n/a	n/a	n/a	n/a	n/a	323.1%	30.0%	45.9%
Total Operating Expenses	69.7%	103.7%	16.7%	103.7%	89.7%	69.2%	1.0%	(0.0%)	0.6%	4.7%
R&D Expenses	58.6%	95.4%	32.8%	96.5%	81.5%	72.1%	(29.5%)	(24.0%)	(28.5%)	4.0%
Marketing & Distribution Expenses	237.2%	214.9%	65.1%	100.5%	72.8%	93.5%	162.4%	33.4%	23.5%	4.7%
General & Admin. Expenses	59.4%	76.4%	(53.1%)	162.0%	299.6%	30.2%	8.0%	6.0%	6.0%	6.0%
Operating Income	(66.0%)	(121.5%)	(18.7%)	(84.1%)	(86.3%)	(67.1%)	33.3%	183.5%	85.4%	87.9%
Adjusted Operating Income	(66.0%)	(121.5%)	(18.7%)	(84.1%)	(86.3%)	(67.1%)	33.3%	183.5%	85.4%	87.9%
Net Financial Income	n/a	n/a	n/a	n/a	(6300.0%)	(24900.0%)	600.0%	60.0%	187.5%	156.5%
Pretax Profit	(66.0%)	(121.8%)	(18.8%)	(84.2%)	(86.4%)	(67.3%)	33.7%	184.8%	86.4%	89.0%
Adjusted Pretax Profit	(66.0%)	(121.8%)	(18.8%)	(84.2%)	(86.4%)	(67.3%)	33.7%	184.8%	86.4%	89.0%
Net Income	(66.0%)	(122.0%)	(18.9%)	(84.3%)	(86.1%)	(67.2%)	33.8%	184.8%	86.4%	49.3%
Adjusted Net Income	(66.0%)	(122.0%)	(18.9%)	(84.3%)	(86.1%)	(67.2%)	33.8%	184.8%	86.4%	49.3%
EPS (SEK)	(47.6%)	(86.9%)	(6.4%)	(50.2%)	(48.4%)	(39.7%)	38.5%	184.4%	85.6%	48.7%
Adjusted EPS (SEK)	(47.6%)	(86.9%)	(6.4%)	(50.2%)	(48.4%)	(39.7%)	38.5%	184.4%	85.6%	48.7%

Source: Jefferies estimates; company data

Exhibit 55 - Oryzon Profit and Loss Model

(EUR millions except EPS Dec YE)	2019E							
	2018A	1H19A	2H19E	2019E	2020E	2021E	2022E	2023E
Revenue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cost of Sales	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Gross Profit	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Operating Expenses	(10.0)	(6.7)	(7.5)	(14.2)	(13.5)	(14.1)	(12.8)	(14.8)
Sales & Marketing Expenses	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
General & Admin. Expenses	(2.6)	(1.7)	(1.7)	(3.4)	(3.6)	(3.8)	(4.0)	(4.3)
R&D Expenses	(7.4)	(5.0)	(5.8)	(10.8)	(9.9)	(10.3)	(8.8)	(10.5)
o/w Acquisition-related Amortisation/Write-downs	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Other Operating Income	7.1	4.4	5.3	9.7	8.9	9.2	7.9	9.5
Operating Exceptionals	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Operating Income	(2.9)	(2.2)	(2.2)	(4.5)	(4.6)	(4.8)	(4.9)	(5.3)
Adjusted Operating Income	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Net Financial Income	(0.8)	(0.4)	(0.4)	(0.8)	(0.4)	(0.4)	(1.0)	(2.0)
Exceptionals	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Income from Associates & JVs	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Pretax Profit	(3.7)	(2.6)	(2.6)	(5.2)	(5.0)	(5.2)	(5.9)	(7.3)
Adjusted Pretax Profit	(3.7)	(2.6)	(2.6)	(5.2)	(5.0)	(5.2)	(5.9)	(7.3)
Taxation	2.5	0.9	1.7	2.6	0.0	0.0	0.0	0.0
Minority Interests	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Net Income from Continuing Operations	(1.2)	(1.8)	(0.9)	(2.6)	(5.0)	(5.2)	(5.9)	(7.3)
Net Income from Discontinued Operations	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Net Income	(1.2)	(1.8)	(0.9)	(2.6)	(5.0)	(5.2)	(5.9)	(7.3)
Adjusted Net Income	(1.2)	(1.8)	(0.9)	(2.6)	(5.0)	(5.2)	(5.9)	(7.3)
WA Basic Shares (mn)	34.6	38.6	44.7	41.8	45.8	45.8	45.8	45.8
WA Shares Diluted (mn)	34.6	38.6	44.7	41.8	45.8	45.8	45.8	45.8
EPS (EUR)	(0.0)	(0.0)	(0.0)	(0.1)	(0.1)	(0.1)	(0.1)	(0.2)
Adjusted EPS (EUR)	(0.0)	(0.0)	(0.0)	(0.1)	(0.1)	(0.1)	(0.1)	(0.2)
Diluted EPS (EUR)	(0.0)	(0.0)	(0.0)	(0.1)	(0.1)	(0.1)	(0.1)	(0.2)
Diluted Adjusted EPS (EUR)	(0.0)	(0.0)	(0.0)	(0.1)	(0.1)	(0.1)	(0.1)	(0.2)
Dividends Paid and Proposed	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Dividends per Share Interim/Final (EUR)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
% Change Year over Year								
Revenue	(100.0%)	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Cost of Sales	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Gross Profit	(100.0%)	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Total Operating Expenses	10.7%	29.7%	53.9%	41.5%	(4.6%)	3.9%	(9.0%)	15.6%
Sales & Marketing Expenses	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
General & Admin. Expenses	(30.4%)	17.9%	44.9%	30.0%	6.0%	6.0%	6.0%	6.0%
R&D Expenses	39.7%	34.3%	56.8%	45.6%	(7.9%)	3.2%	(14.6%)	20.0%
Operating Income	50.7%	20.6%	53.7%	36.6%	(7.9%)	3.2%	(14.6%)	20.0%
Adjusted Operating Income	32.6%	(52.5%)	(54.5%)	(53.5%)	(2.6%)	(5.4%)	(1.6%)	(8.5%)
Pretax Profit	29.3%	(33.1%)	(49.6%)	(40.8%)	4.4%	(5.0%)	(13.0%)	(23.9%)
Adjusted Pretax Profit	29.3%	(33.1%)	(49.6%)	(40.8%)	4.4%	(5.0%)	(13.0%)	(23.9%)
Net Income	77.4%	(414.9%)	49.7%	(123.2%)	(90.2%)	(5.0%)	(13.0%)	(23.9%)
Adjusted Net Income	77.4%	(414.9%)	49.7%	(123.2%)	(90.2%)	(5.0%)	(13.0%)	(23.9%)
EPS (EUR)	79.3%	(372.9%)	60.2%	(85.0%)	(73.5%)	(5.0%)	(13.0%)	(23.9%)
Adjusted EPS (EUR)	79.3%	(372.9%)	60.2%	(85.0%)	(73.5%)	(5.0%)	(13.0%)	(23.9%)

Source: Jefferies estimates; company data

Exhibit 56 - Oxford BioMedica Profit and Loss Model

(£ millions except EPS Dec YE)	2019E							
	2018A	1H19A	2H19E	2019E	2020E	2021E	2022E	2023E
Platform Segment Gross Income	55.6	19.8	31.0	50.8	89.5	82.3	106.1	130.5
Product Segment Gross Income	12.2	12.8	7.2	20.0	0.1	0.0	0.0	0.0
Revenue	66.8	32.1	37.7	69.8	89.3	82.3	106.1	130.5
Cost of Sales	(22.8)	(11.7)	(18.7)	(30.4)	(39.7)	(45.8)	(59.4)	(74.8)
Gross Profit	44.0	20.4	19.0	39.4	49.7	36.5	46.7	55.7
Total Operating Expenses	(37.1)	(25.8)	(28.3)	(54.0)	(55.2)	(58.1)	(61.0)	(63.8)
R&D Expenses	(29.7)	(21.7)	(23.2)	(45.0)	(45.6)	(47.8)	(50.2)	(52.7)
General & Admin. Expenses	(7.4)	(4.0)	(5.0)	(9.1)	(9.6)	(10.2)	(10.7)	(11.0)
Sales & Marketing Expenses	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
o/w Acquisition-related Amortisation/Write-down	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Other Operating Income	1.1	0.5	0.5	1.0	0.3	0.0	0.0	0.0
Operating Exceptionals	6.0	(1.2)	0.0	(1.2)	0.0	0.0	0.0	0.0
Operating Income	13.9	(6.1)	(8.7)	(14.8)	(5.2)	(21.6)	(14.2)	(8.1)
Adjusted Operating Income	7.9	(4.9)	(8.7)	(13.6)	(5.2)	(21.6)	(14.2)	(8.1)
EBITDA	18.3	(3.3)	(5.1)	(8.4)	2.7	(13.2)	(5.5)	1.2
Adjusted EBITDA	12.3	(2.1)	(5.1)	(7.2)	2.7	(13.2)	(5.5)	1.2
Net Financial Income	(8.9)	(6.1)	0.1	(6.0)	0.1	(0.4)	(1.4)	(2.3)
Exceptionals	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Income from Associates & JVs	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Pretax Profit	5.0	(12.1)	(8.7)	(20.8)	(5.1)	(22.0)	(15.6)	(10.4)
Adjusted Pretax Profit	(1.0)	(10.9)	(8.7)	(19.6)	(5.1)	(22.0)	(15.6)	(10.4)
Taxation	2.5	1.9	0.0	1.9	0.0	0.0	0.0	0.0
Minority Interests	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Net Income from Continuing Operations	7.5	(10.2)	(8.7)	(18.8)	(5.1)	(22.0)	(15.6)	(10.4)
Net Income from Discontinued Operations	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Net Income	7.5	(10.2)	(8.7)	(18.8)	(5.1)	(22.0)	(15.6)	(10.4)
Adjusted Net Income	1.6	(9.0)	(8.7)	(17.7)	(5.1)	(22.0)	(15.6)	(10.4)
WA Basic Shares (mn)	65.2	68.6	73.5	71.0	76.3	76.4	76.5	76.6
WA Shares Diluted (mn)	69.2	68.6	73.5	71.0	76.3	76.4	76.5	76.6
EPS (p)	11.6	(14.8)	(11.8)	(26.5)	(6.7)	(28.8)	(20.4)	(13.5)
Adjusted EPS (p)	2.4	(13.1)	(11.8)	(24.9)	(6.7)	(28.8)	(20.4)	(13.5)
Diluted EPS (p)	10.9	(14.8)	(11.8)	(26.5)	(6.7)	(28.8)	(20.4)	(13.5)
Diluted Adjusted EPS (p)	2.3	(13.1)	(11.8)	(24.9)	(6.7)	(28.8)	(20.4)	(13.5)
% Change Year over Year								
Platform Segment Gross Income	41.4%	(21.8%)	2.2%	(8.7%)	76.2%	(8.1%)	29.0%	22.9%
Product Segment Gross Income	n/a	19.8%	371.2%	64.0%	(99.3%)	(100.0%)	n/a	n/a
Revenue	77.6%	(9.0%)	19.7%	4.5%	28.0%	(7.9%)	29.0%	22.9%
Cost of Sales	23.4%	16.2%	47.2%	33.5%	30.6%	15.5%	29.7%	25.8%
Gross Profit	129.9%	(19.1%)	1.1%	(10.4%)	26.0%	(26.6%)	28.1%	19.2%
Total Operating Expenses	33.1%	55.9%	37.1%	45.5%	2.1%	5.2%	5.0%	4.6%
R&D Expenses	37.5%	54.2%	48.8%	51.3%	1.3%	5.0%	5.0%	5.0%
General & Admin. Expenses	17.9%	65.9%	0.6%	22.0%	6.2%	6.2%	5.0%	2.7%
Sales & Marketing Expenses	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Operating Income	345.5%	(164.6%)	(292.6%)	(206.3%)	64.7%	(313.1%)	34.0%	43.4%
Adjusted Operating Income	213.4%	(152.2%)	(500.0%)	(271.7%)	61.6%	(313.1%)	34.0%	43.4%
Pretax Profit	142.6%	(333.8%)	(5124.0%)	(514.5%)	75.3%	(329.0%)	28.9%	33.8%
Adjusted Pretax Profit	92.6%	(311.3%)	(41.0%)	(1924.6%)	73.9%	(329.0%)	28.9%	33.8%
Net Income	183.6%	(296.3%)	(467.3%)	(349.8%)	72.8%	(329.0%)	28.9%	33.8%
Adjusted Net Income	115.1%	(273.8%)	(139.4%)	(1234.4%)	71.0%	(329.0%)	28.9%	33.8%
EPS (p)	179.4%	(284.3%)	(430.1%)	(329.3%)	74.7%	(328.4%)	29.0%	33.9%
Adjusted EPS (p)	114.3%	(263.1%)	(115.1%)	(1141.4%)	73.0%	(328.4%)	29.0%	33.9%

Source: Jefferies estimates; company data

Exhibit 57 - Poxel Profit and Loss Model

(EUR millions except EPS Dec YE)	2019E							
	2018A	1H19A	2H19E	2019E	2020E	2021E	2022E	2023E
Revenue	74.6	23.2	14.7	37.9	30.7	17.3	121.1	163.8
Cost of Sales	0.0	0.0	0.0	0.0	0.0	(1.8)	(13.0)	(17.1)
Gross Profit	74.6	23.2	14.7	37.9	30.7	15.5	108.0	146.6
Total Operating Expenses	(62.1)	(29.0)	(27.2)	(56.2)	(36.1)	(39.1)	(31.3)	(23.5)
R&D Expenses	(54.5)	(24.2)	(21.9)	(46.1)	(25.3)	(27.7)	(19.2)	(10.7)
General & Admin. Expenses	(7.5)	(4.9)	(5.3)	(10.2)	(10.8)	(11.4)	(12.1)	(12.8)
Sales & Marketing Expenses	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
o/w Acquisition-related Amortisation/Write-down	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Other Operating Income	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Operating Exceptionals	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Operating Income	12.5	(5.9)	(12.5)	(18.3)	(5.4)	(23.6)	76.7	123.1
Adjusted Operating Income	12.5	(5.9)	(12.5)	(18.3)	(5.4)	(23.6)	76.7	123.1
Net Financial Income	1.1	0.1	0.0	0.1	0.1	(0.4)	(0.4)	1.5
Exceptionals	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Income from Associates & JVs	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Pretax Profit	13.6	(5.8)	(12.4)	(18.2)	(5.3)	(24.0)	76.3	124.6
Adjusted Pretax Profit	13.6	(5.8)	(12.4)	(18.2)	(5.3)	(24.0)	76.3	124.6
Taxation	(0.1)	0.0	0.0	0.0	0.0	0.0	(0.4)	(41.1)
Minority Interests	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Net Income from Continuing Operations	13.5	(5.8)	(12.4)	(18.2)	(5.3)	(24.0)	75.9	83.5
Net Income from Discontinued Operations	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Net Income	13.5	(5.8)	(12.4)	(18.2)	(5.3)	(24.0)	75.9	83.5
Adjusted Net Income	13.5	(5.8)	(12.4)	(18.2)	(5.3)	(24.0)	75.9	83.5
WA Basic Shares (mn)	24.8	25.9	25.9	25.9	26.1	26.3	26.5	26.7
WA Shares Diluted (mn)	24.8	25.9	25.9	25.9	26.1	26.3	26.5	26.7
EPS (EUR)	0.5	(0.2)	(0.5)	(0.7)	(0.2)	(0.9)	2.9	3.1
Adjusted EPS (EUR)	0.5	(0.2)	(0.5)	(0.7)	(0.2)	(0.9)	2.9	3.1
Diluted EPS (EUR)	0.5	(0.2)	(0.5)	(0.7)	(0.2)	(0.9)	2.9	3.1
Diluted Adjusted EPS (EUR)	0.5	(0.2)	(0.5)	(0.7)	(0.2)	(0.9)	2.9	3.1
% Change Year over Year								
Revenue	1310.3%	(38.2%)	(60.4%)	(49.2%)	(18.9%)	(43.6%)	598.9%	35.2%
Cost of Sales	n/a	n/a	n/a	n/a	n/a	n/a	615.5%	31.3%
Gross Profit	1310.3%	(38.2%)	(60.4%)	(49.2%)	(18.9%)	(49.5%)	597.0%	35.7%
Total Operating Expenses	128.3%	(6.5%)	(12.3%)	(9.4%)	(35.8%)	8.5%	(20.0%)	(24.9%)
R&D Expenses	160.0%	(11.9%)	(19.2%)	(15.6%)	(45.0%)	9.6%	(30.7%)	(44.4%)
General & Admin. Expenses	21.0%	34.7%	35.3%	35.0%	6.0%	6.0%	6.0%	6.0%
Sales & Marketing Expenses	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Operating Income	157.2%	(191.5%)	(303.5%)	(246.3%)	70.7%	(340.1%)	424.5%	60.4%
Adjusted Operating Income	157.2%	(191.5%)	(303.5%)	(246.3%)	70.7%	(340.1%)	424.5%	60.4%
Net Financial Income	368.7%	(91.6%)	(86.5%)	(90.6%)	0.0%	(500.0%)	0.0%	462.5%
Pretax Profit	161.0%	(179.8%)	(296.1%)	(234.1%)	71.1%	(356.0%)	417.4%	63.2%
Adjusted Pretax Profit	161.0%	(179.8%)	(296.1%)	(234.1%)	71.1%	(356.0%)	417.4%	63.2%
Net Income	160.7%	(179.8%)	(298.5%)	(234.8%)	71.1%	(356.0%)	415.8%	9.9%
Adjusted Net Income	160.7%	(179.8%)	(298.5%)	(234.8%)	71.1%	(356.0%)	415.8%	9.9%
EPS (EUR)	156.3%	(174.2%)	(290.1%)	(229.1%)	71.3%	(352.6%)	413.4%	9.1%
Adjusted EPS (EUR)	156.3%	(174.2%)	(290.1%)	(229.1%)	71.3%	(352.6%)	413.4%	9.1%

Source: Jefferies estimates; company data

Exhibit 58 - Protalix Profit and Loss Model

(USD millions except EPS Dec YE)	2019E									
	2018A	1Q19A	2Q19A	3Q19A	4Q19E	2019E	2020E	2021E	2022E	2023E
Revenue	34.2	10.4	12.2	14.2	10.2	47.2	27.3	168.3	115.0	38.0
Cost of Sales	(9.3)	(2.0)	(2.7)	(3.2)	(1.6)	(9.6)	(8.3)	(9.7)	(11.8)	(14.3)
Gross Profit	24.9	8.4	9.6	11.0	8.6	37.6	19.0	158.6	103.1	23.7
Total Operating Expenses	(44.2)	(13.9)	(15.4)	(12.6)	(16.1)	(58.0)	(44.0)	(32.6)	(28.8)	(30.8)
Selling, General & Admin. Expenses	(10.9)	(2.2)	(2.1)	(2.6)	(2.6)	(9.5)	(10.0)	(10.4)	(10.9)	(11.5)
R&D Expenses	(33.3)	(11.7)	(13.3)	(10.0)	(13.5)	(48.5)	(34.0)	(22.2)	(17.9)	(19.3)
o/w Acquisition-related Amortisation/Write-dow	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Other Operating Income	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Operating Exceptionals	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Operating Income	(19.3)	(5.5)	(5.8)	(1.5)	(7.5)	(20.4)	(25.0)	126.0	74.3	(7.1)
Adjusted Operating Income	(19.3)	(5.5)	(5.8)	(1.5)	(7.5)	(20.4)	(25.0)	126.0	74.3	(7.1)
Net Financial Income	(7.1)	(1.7)	(1.9)	(2.0)	(1.9)	(7.6)	(8.0)	(8.0)	0.5	1.0
Exceptionals	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Income from Associates & JVs	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Pretax Profit	(26.5)	(7.3)	(7.7)	(3.6)	(9.4)	(28.0)	(33.0)	118.0	74.8	(6.1)
Adjusted Pretax Profit	(26.5)	(7.3)	(7.7)	(3.6)	(9.4)	(28.0)	(33.0)	118.0	74.8	(6.1)
Taxation	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	(8.0)	0.0
Minority Interests	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Net Income from Continuing Operations	(26.5)	(7.3)	(7.7)	(3.6)	(9.4)	(28.0)	(33.0)	118.0	66.9	(6.1)
Net Income from Discontinued Operations	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Net Income	(26.5)	(7.3)	(7.7)	(3.6)	(9.4)	(28.0)	(33.0)	118.0	66.9	(6.1)
Adjusted Net Income	(26.5)	(7.3)	(7.7)	(3.6)	(9.4)	(28.0)	(33.0)	118.0	66.9	(6.1)
WA Basic Shares (mn)	14.7	14.8	14.8	14.8	14.8	14.8	15.0	15.3	15.6	15.9
WA Shares Diluted (mn)	14.7	14.8	14.8	14.8	14.8	14.8	15.0	18.4	18.7	15.9
EPS (USD)	(1.80)	(0.49)	(0.52)	(0.24)	(0.63)	(1.88)	(2.20)	7.72	4.29	(0.38)
Adjusted EPS (USD)	(1.80)	(0.49)	(0.52)	(0.24)	(0.63)	(1.88)	(2.20)	7.72	4.29	(0.38)
Diluted EPS (USD)	(1.80)	(0.49)	(0.52)	(0.24)	(0.63)	(1.88)	(2.20)	6.42	3.58	(0.38)
Diluted Adjusted EPS (USD)	(1.80)	(0.49)	(0.52)	(0.24)	(0.63)	(1.88)	(2.20)	6.42	3.58	(0.38)
% Change Year over Year										
Revenue	62.4%	55.5%	153.1%	15.5%	(1.1%)	37.8%	(42.2%)	516.9%	(31.7%)	(67.0%)
Cost of Sales	(38.9%)	(30.1%)	23.5%	67.2%	(28.5%)	2.9%	(13.4%)	17.1%	22.0%	20.9%
Gross Profit	326.5%	121.5%	259.8%	6.0%	6.6%	50.8%	(49.5%)	735.0%	(35.0%)	(77.0%)
Total Operating Expenses	9.6%	55.8%	63.8%	(11.1%)	37.0%	31.1%	(24.1%)	(25.9%)	(11.6%)	6.8%
Selling, General & Admin. Expenses	(5.3%)	(10.7%)	(4.2%)	(36.7%)	20.4%	(13.0%)	4.8%	4.8%	4.8%	4.9%
R&D Expenses	15.6%	81.6%	84.0%	(0.7%)	40.8%	45.5%	(29.8%)	(34.9%)	(19.3%)	7.9%
Operating Income	44.1%	(7.4%)	13.4%	58.7%	(103.8%)	(5.7%)	(22.5%)	604.2%	(41.0%)	(109.5%)
Adjusted Operating Income	44.1%	(7.4%)	13.4%	58.7%	(103.8%)	(5.7%)	(22.5%)	604.2%	(41.0%)	(109.5%)
Net Financial Income	25.0%	17.1%	(10.8%)	(27.5%)	(7.8%)	(5.6%)	(6.0%)	0.0%	106.3%	100.0%
Pretax Profit	68.3%	(0.3%)	8.5%	33.1%	(72.7%)	(5.6%)	(18.1%)	457.7%	(36.6%)	(108.1%)
Adjusted Pretax Profit	39.9%	(0.3%)	8.5%	33.1%	(72.7%)	(5.6%)	(18.1%)	457.7%	(36.6%)	(108.1%)
Net Income	68.3%	(0.3%)	8.5%	33.1%	(72.7%)	(5.6%)	(18.1%)	457.7%	(43.4%)	(109.1%)
Adjusted Net Income	39.9%	(0.3%)	8.5%	33.1%	(72.7%)	(5.6%)	(18.1%)	457.7%	(43.4%)	(109.1%)
EPS (USD)	71.8%	(882.6%)	(804.3%)	(568.0%)	(1615.6%)	(4.8%)	(16.9%)	450.7%	(44.4%)	(108.9%)
Adjusted EPS (USD)	46.5%	(882.6%)	(804.3%)	(568.0%)	(1615.6%)	(4.8%)	(16.9%)	450.7%	(44.4%)	(108.9%)

Source: Jefferies estimates; company data

Exhibit 59 - UCB Profit and Loss Model

(EUR millions except EPS Dec YE)	2019E							
	2018A	1H19A	2H19E	2019E	2020E	2021E	2022E	2023E
Net Sales	4,412	2,219	2,306	4,525	4,933	5,267	4,994	5,173
Royalty Income	92	33	37	70	62	60	60	60
Other Revenue	128	71	71	142	228	266	287	302
Revenue	4,632	2,323	2,414	4,737	5,223	5,593	5,340	5,535
Cost of Sales	(1,198)	(598)	(624)	(1,222)	(1,293)	(1,328)	(1,172)	(1,216)
Gross Profit	3,434	1,725	1,790	3,515	3,930	4,266	4,169	4,319
Total Operating Expenses	(2,329)	(1,154)	(1,313)	(2,467)	(2,800)	(2,979)	(2,837)	(2,917)
Sales & Marketing Expenses	(964)	(502)	(534)	(1,036)	(1,110)	(1,201)	(1,165)	(1,201)
R&D Expenses	(1,161)	(568)	(704)	(1,272)	(1,470)	(1,554)	(1,458)	(1,495)
General & Admin. Expenses	(180)	(96)	(96)	(192)	(210)	(214)	(203)	(209)
o/w Acq'n-related Amortisation/Write-downs	(36)	(18)	(18)	(36)	(36)	(36)	(36)	(30)
Other Operating Income/Expenses	(24)	12	21	33	(10)	(11)	(11)	(12)
Operating Exceptionals	4	27	0	27	0	0	0	0
Operating Income	1,109	598	477	1,075	1,130	1,286	1,331	1,402
Adjusted Operating Income	1,275	663	575	1,238	1,336	1,492	1,491	1,612
Net Financial Income	(93)	(53)	(27)	(80)	(80)	(82)	(60)	(40)
Exceptionals	0	0	0	0	0	0	0	0
Income from Associates & JVs	(1)	(1)	0	(1)	0	0	0	0
Pretax Profit	1,015	544	450	994	1,050	1,204	1,271	1,362
Adjusted Pretax Profit	1,181	609	548	1,157	1,256	1,410	1,431	1,572
Taxation	(200)	(108)	(91)	(199)	(210)	(241)	(254)	(272)
Minority Interests	(23)	(26)	1	(25)	(15)	(15)	(15)	(15)
Net Income from Continuing Operations	792	410	360	770	825	948	1,002	1,075
Net Income from Discontinued Operations	8	1	0	1	0	0	0	0
Net Income	800	411	360	771	825	948	1,002	1,075
Pre-exceptionals Net Income	795	388	361	749	825	948	1,002	1,075
Adjusted Net Income	901	454	431	884	972	1,096	1,117	1,225
WA Basic Shares (mn)	188.5	187.2	188.4	188.4	188.5	188.7	188.9	189.1
WA Shares Diluted (mn)	188.5	187.2	188.4	188.4	188.5	188.7	188.9	189.1
EPS (EUR)	4.24	2.20	1.91	4.09	4.38	5.03	5.31	5.68
Adjusted EPS (EUR)	4.78	2.42	2.29	4.69	5.16	5.81	5.91	6.48
UCB Core EPS (EUR)	4.78	2.42	2.29	4.69	5.16	5.81	5.91	6.48
Diluted EPS (EUR)	4.24	2.20	1.91	4.09	4.38	5.03	5.31	5.68
Diluted Adjusted EPS (EUR)	4.78	2.42	2.29	4.69	5.16	5.81	5.91	6.48
Dividends Paid and Proposed	(235)			(243)	(272)	(313)	(325)	(364)
Net Dividends per Share Interim/Final (EUR)	0.85			0.87	0.98	1.12	1.17	1.30
% Change Year over Year								
Revenue	2.3%	2.4%	2.2%	2.3%	10.3%	7.1%	(4.5%)	3.7%
Cost of Sales	(0.2%)	4.4%	(0.1%)	2.0%	5.8%	2.7%	(11.8%)	3.8%
Gross Profit	3.1%	1.7%	3.0%	2.3%	11.8%	8.5%	(2.3%)	3.6%
Total Operating Expenses	5.9%	11.1%	1.8%	5.9%	13.5%	6.4%	(4.8%)	2.8%
Sales & Marketing Expenses	2.6%	13.6%	2.3%	7.5%	7.1%	8.2%	(3.0%)	3.1%
R&D Expenses	9.8%	13.6%	6.4%	9.5%	15.6%	5.7%	(6.2%)	2.5%
General & Admin. Expenses	(6.3%)	9.1%	4.3%	6.7%	9.4%	2.0%	(5.2%)	3.0%
Operating Income	2.0%	(11.5%)	10.2%	(3.1%)	5.1%	13.8%	3.5%	5.3%
Adjusted Operating Income	(1.2%)	(9.9%)	6.7%	(2.9%)	7.9%	11.7%	(0.0%)	8.1%
Pretax Profit	2.7%	(13.5%)	14.8%	(2.1%)	5.6%	14.7%	5.6%	7.1%
Adjusted Pretax Profit	(0.8%)	(11.6%)	10.1%	(2.0%)	8.5%	12.3%	1.5%	9.8%
Net Income	6.2%	(25.4%)	41.3%	(3.6%)	7.0%	14.9%	5.7%	7.2%
Adjusted Net Income	(0.7%)	(21.9%)	32.2%	(1.8%)	9.9%	12.7%	1.9%	9.7%
EPS (EUR)	6.1%	(25.0%)	41.3%	(3.6%)	6.9%	14.8%	5.6%	7.1%
Adjusted EPS (EUR)	(0.8%)	(21.5%)	32.3%	(1.8%)	9.9%	12.6%	1.8%	9.6%
UCB Core EPS (EUR)	(0.8%)	(21.5%)	32.3%	(1.8%)	9.9%	12.6%	1.8%	9.6%
Diluted Adjusted EPS (EUR)	(0.8%)	(21.5%)	32.3%	(1.8%)	9.9%	12.6%	1.8%	9.6%

Source: Jefferies estimates; company data

Exhibit 60 - Zealand Pharma Profit and Loss Model

(DKK millions except EPS Dec YE)	2019E									
	2018A	1Q19A	2Q19A	3Q19A	4Q19E	2019E	2020E	2021E	2022E	2023E
Total Ixisenatide Royalties	24.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Milestone Income	13.1	0.0	19.9	9.9	181.2	211.0	117.6	0.0	0.0	0.0
Revenue	38.0	0.0	19.9	9.9	181.2	211.0	117.6	131.9	293.2	540.8
Cost of Sales	(3.4)	0.0	(0.2)	(0.2)	0.0	(0.4)	0.0	0.0	0.0	0.0
Gross Profit	34.6	0.0	19.7	9.7	181.2	210.6	117.6	131.9	293.2	540.8
Total Operating Expenses	(481.8)	(135.9)	(156.2)	(139.8)	(151.9)	(583.9)	(594.4)	(715.7)	(869.6)	(928.6)
R&D Expenses	(438.2)	(121.5)	(135.4)	(123.8)	(134.6)	(515.4)	(469.4)	(486.2)	(560.4)	(589.3)
Administrative Expenses	(43.5)	(14.5)	(20.7)	(16.0)	(17.3)	(68.5)	(75.0)	(79.5)	(84.3)	(89.3)
Sales & Marketing Expenses	0.0	0.0	0.0	0.0	0.0	0.0	(50.0)	(150.0)	(225.0)	(250.0)
Other Operating Income	0.6	0.2	0.1	0.1	0.1	0.5	0.0	0.0	0.0	0.0
Operating Exceptionals	1,098.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Operating Income	652.4	(135.8)	(136.3)	(130.1)	29.3	(372.8)	(476.8)	(583.8)	(576.4)	(387.8)
Adjusted Operating Income	(446.5)	(135.8)	(136.3)	(130.1)	29.3	(372.8)	(476.8)	(583.8)	(576.4)	(387.8)
Net Financial Income	(27.3)	7.0	(2.2)	15.5	2.2	22.5	12.5	9.0	2.0	(11.5)
Exceptionals	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Income from Associates & JVs	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Pretax Profit	625.1	(128.8)	(138.5)	(114.5)	31.5	(350.3)	(464.3)	(574.8)	(574.4)	(399.3)
Adjusted Pretax Profit	(473.8)	(128.8)	(138.5)	(114.5)	31.5	(350.3)	(464.3)	(574.8)	(574.4)	(399.3)
Taxation	(43.8)	1.3	1.3	1.3	1.5	5.5	0.0	0.0	0.0	0.0
Minority Interests	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Net Income from Continuing Operations	581.3	(127.5)	(137.1)	(113.2)	33.1	(344.8)	(464.3)	(574.8)	(574.4)	(399.3)
Net Income from Discontinued Operations	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Net Income	581.3	(127.5)	(137.1)	(113.2)	33.1	(344.8)	(464.3)	(574.8)	(574.4)	(399.3)
Adjusted Net Income	(459.6)	(127.5)	(137.1)	(113.2)	33.1	(344.8)	(464.3)	(574.8)	(574.4)	(399.3)
WA Basic Shares (mn)	30.7	30.8	31.6	32.9	34.8	34.8	35.9	36.1	36.3	36.5
WA Shares Diluted (mn)	30.7	30.8	31.6	32.9	34.8	34.8	35.9	36.1	36.3	36.5
EPS (DKK)	18.9	(4.1)	(4.3)	(3.4)	1.0	(9.9)	(12.9)	(15.9)	(15.8)	(10.9)
Adjusted EPS (DKK)	(15.0)	(4.1)	(4.3)	(3.4)	1.0	(9.9)	(12.9)	(15.9)	(15.8)	(10.9)
<i>Diluted EPS (DKK)</i>	<i>18.9</i>	<i>(4.1)</i>	<i>(4.3)</i>	<i>(3.4)</i>	<i>1.0</i>	<i>(9.9)</i>	<i>(12.9)</i>	<i>(15.9)</i>	<i>(15.8)</i>	<i>(10.9)</i>
Diluted Adjusted EPS (DKK)	(15.0)	(4.1)	(4.3)	(3.4)	1.0	(9.9)	(12.9)	(15.9)	(15.8)	(10.9)
% Change Year over Year										
Revenue	(72.1%)	(100.0%)	31.6%	n/a	1280.9%	455.6%	(44.3%)	12.2%	122.3%	84.4%
Cost of Sales	(76.3%)	(100.0%)	(91.0%)	n/a	n/a	(87.6%)	(100.0%)	n/a	n/a	n/a
Gross Profit	(71.7%)	(100.0%)	50.7%	n/a	1280.9%	508.2%	(44.2%)	12.2%	122.3%	84.4%
Total Operating Expenses	29.5%	40.3%	21.7%	42.8%	(4.2%)	21.2%	1.8%	20.4%	21.5%	6.8%
Sales & Marketing Expenses	n/a	n/a	n/a	n/a	n/a	n/a	n/a	200.0%	50.0%	11.1%
Administrative Expenses	(8.3%)	80.6%	149.0%	55.7%	2.2%	57.3%	9.5%	6.0%	6.0%	6.0%
R&D Expenses	35.0%	36.6%	12.8%	41.3%	(4.9%)	17.6%	(8.9%)	3.6%	15.2%	5.2%
Operating Income	361.6%	(53.5%)	(18.4%)	(113.0%)	120.2%	(157.1%)	(27.9%)	(22.4%)	1.3%	32.7%
Adjusted Operating Income	(79.1%)	(53.5%)	(18.4%)	(32.9%)	120.2%	16.5%	(27.9%)	(22.4%)	1.3%	32.7%
Pretax Profit	322.6%	(30.5%)	(24.0%)	(111.7%)	122.5%	(156.0%)	(32.6%)	(23.8%)	0.1%	30.5%
Adjusted Pretax Profit	(68.8%)	(30.5%)	(24.0%)	6.9%	122.5%	26.1%	(32.6%)	(23.8%)	0.1%	30.5%
Taxation	895.9%	4.9%	3.1%	(102.3%)	84.6%	(112.6%)	100.0%	n/a	n/a	n/a
Net Income	311.2%	(31.0%)	(24.3%)	(112.3%)	125.4%	(159.3%)	(34.7%)	(23.8%)	0.1%	30.5%
Adjusted Net Income	(67.0%)	(31.0%)	(24.3%)	6.9%	125.4%	25.0%	(34.7%)	(23.8%)	0.1%	30.5%
EPS (DKK)	291.7%	(30.3%)	(20.5%)	(111.5%)	122.4%	(152.3%)	(30.5%)	(23.1%)	0.6%	30.9%
Adjusted EPS (DKK)	(51.5%)	(30.3%)	(20.5%)	13.1%	122.4%	33.8%	(30.5%)	(23.1%)	0.6%	30.9%

Source: Jefferies estimates; company data

AC IMMUNE (ACIU)

RATING BUY	PRICE \$8.99[^]	MARKET CAP CHF631.7M / \$650.0M
PRICE TARGET (PT) \$18.00	UPSIDE SCENARIO PT \$23.00	DOWNSIDE SCENARIO PT \$4.00

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

Estimates				
CHF	2018A	2019E	2020E	2021E
Rev. (MM)	7.2	114.9	30.0	0.0
<i>Previous</i>				
EBIT (MM)	(49.6)	49.1	(53.3)	(94.6)
<i>Previous</i>				
Cash Position	186.5	287.7	228.0	142.4
<i>Previous</i>				
EPS	(0.82)	0.65	(0.73)	(1.29)
<i>Previous</i>				

Valuation				
	2018A	2019E	2020E	2021E
P/Rev	87.7x	5.5x	21.1x	
EV/Rev	46.1x	2.9x	11.1x	
EV/EBIT	NM	6.8x	NM	NM

The Long View

Scenarios

Base Case

- Despite crenezumab Phase III trials being discontinued, ACIU's pipeline of Abeta- and Tau-targeted therapies provides multiple shots on goal for multi-blockbuster opportunities, and positions it well for the advent of combination approaches to treat AD.
- Our \$18 Price Target comprises NPVs for ACI-24, ACI-35, semorinemab, PI-2620, and ACI-3024, together with Net Cash.

Upside Scenario

- Positive ACI-3024 Phase I data during 1H20E and the start of Phase II trials with partner Lilly could add c. \$0.50/share.
- Positive Phase II ACI-35 AD data during 2Q20E could provide at least an incremental \$1/share.
- Positive semorinemab Phase II AD data in 4Q20E enabling start of Phase IIb/III could add c.\$3/share.
- Positive Phase II AD or Down syndrome data for ACI-24 during 2021-22E could add at least \$8.5/share.
- Over a 12 month period, these potential catalysts could boost our NPV derived Price Target to around \$23.

Downside Scenario

- Safety and/or efficacy concerns in the ACI-3024 and/or ACI-35 trials during 1H20E could remove \$0.5 and \$1 per share, respectively.
- Safety and/or efficacy concerns in the semorinemab Phase II trials in AD during 4Q20E and 4Q21E could remove up to \$3/share.
- Safety and/or efficacy concerns with ACI-24 in AD or Down syndrome during 2021-22E could remove up to \$8.5/share.
- Over a 12 month period, these setbacks could reduce our NPV derived Price Target to around \$4.

Investment Thesis / Where We Differ

- Around CHF303m (\$306m) Cash at 30 September 2019 should be sufficient to fund operations into 2023E.
- Our cash burn forecasts exclude potential upside from incremental out-licensing deals or future milestone income.

Catalysts

- ACI-3024 Phase I SAD and MAD data during 1H20E
- Phase IIb/III interim data for ACI-35 during 2Q20E
- Start of Phase II trial evaluating ACI-24 in Down syndrome during 1H20E
- Start of first-in-man study for 3rd gen α -synuclein PET tracer during 1H20E
- Phase II semorinemab data in prodromal/mild and moderate AD around YE20E and YE21E, respectively
- PI-2620 Phase II PSP data during 4Q20E

ALK-ABELLO A/S (ALKB DC)

RATING HOLD	PRICE DKK1,648.00[^]	MARKET CAP DKK18.0B / \$2.7B
PRICE TARGET (PT) DKK1,580.00 (FROM DKK1,400.00)	UPSIDE SCENARIO PT DKK1,900.00	DOWNSIDE SCENARIO PT DKK1,300.00

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

Estimates				
DKK	2018A	2019E	2020E	2021E
Rev. (MM)	2,915.0	3,273.2	3,513.4	3,910.7
<i>Previous</i>				
EBITDA (MM)	136.0	271.0	269.3	642.2
<i>Previous</i>		271.1	360.5	671.9
EBIT (MM)	(57.0)	21.2	33.5	385.9
<i>Previous</i>		21.3	124.7	415.6
EPS	(12.06)	(0.07)	(0.14)	19.28
<i>Previous</i>		(0.06)	4.94	21.27

Valuation				
	2018A	2019E	2020E	2021E
P/Rev	6.2x	5.5x	5.1x	4.6x
EV/Rev	6.4x	5.7x	5.3x	4.8x
EV/EBITDA	NM	69.2x	69.6x	29.2x
EV/EBIT	NM	NM	NM	48.6x
FY P/E	NM	NM	NM	85.5x

The Long View

Scenarios

Base Case

- Operating leverage plus benefits from the efficiency programme underpin our confidence the European base business generates an NPV around DKK460/share.
- Optimistic on the ramp-up of ACARIZAX house dust mite (HDM) SLIT-tablets in ALK markets ex-US/Japan given the benefit from allergic asthma label claims.
- ALK must commercialise the SLIT-tablets itself in the potentially lucrative US market, increasing execution risk.
- DKK1580 per share Price Target is based on an NPV sum-of-the-parts valuation.

Upside Scenario

- Higher HDM SLIT-tablet peak penetration in ALK markets ex-US/Japan to c.290k patients from 234k base case could boost our NPVs by around DKK150/share.
- Greater adoption of HDM SLIT-tablets in the US for c.130k patients at peak, above our base case 85k, could boost our NPVs by around DKK280/share.
- SCIT/SLIT business remains stable versus our base case 2% decline 2018-23E could add c.DKK90/share.
- Over a 12-month period, greater confidence in growth prospects for the allergy tablets, particularly in the US, could boost our NPV derived Price Target to around DKK1900/share.

Downside Scenario

- Lower HDM SLIT-tablet peak penetration in ALK markets ex-US/Japan to c.150k patients could lower our NPVs by around DKK230/share.
- A more sluggish ramp-up of HDM SLIT-tablets in the US for only 60k patients at peak could potentially lower our NPVs by around DKK160/share.
- SCIT/SLIT business declines more rapidly at 4-5% versus our base case 2% decline 2018-23E could remove c.DKK100/share.
- Over a 12-month period, concerns around the base business or the allergy tablets could lower our NPV derived Price Target to around DKK1300/share.

Investment Thesis / Where We Differ

- ALK has been working in the allergy field for a number of years and has a leading c.40% share of the global allergy vaccine market. ALK is an expert in the production of allergens for allergy vaccines, a complex process which represents a significant barrier to entry, in our view, and should ensure long product lifecycles without generic concerns.

Catalysts

- Progress updates on the SLIT-tablets in the US, including increasing prescription depth and breadth
- Birch tree SLIT-tablet EU launches during 2020E
- US adrenaline pen progress updates and eventual approval
- Quarterly results demonstrating a robust trend for the core EU allergy franchise and operating leverage as efficiency programmes are implemented

ALMIRALL (ALM SM)

RATING BUY	PRICE €14.74 [^]	MARKET CAP €2.6B / \$2.9B
PRICE TARGET (PT) €20.00	UPSIDE SCENARIO PT €24.00	DOWNSIDE SCENARIO PT €12.00

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

Estimates				
€	2018A	2019E	2020E	2021E
Rev. (MM)	811.0	917.7	896.4	1,001.6
<i>Previous</i>		917.8	897.2	1,003.2
EBIT (MM)	190.9	290.5	257.6	316.9
<i>Previous</i>		290.6	257.8	317.3
EPS-GAAP	0.45	0.70	0.60	0.84
<i>Previous</i>				
EPS	0.80	1.24	1.08	1.35
<i>Previous</i>				

Valuation				
	2018A	2019E	2020E	2021E
FY P/E GAAP	32.8x	21.1x	24.6x	17.5x
EV/Rev	3.8x	3.4x	3.5x	3.1x
EV/EBIT	16.4x	10.7x	12.1x	9.9x
FY P/E	18.4x	11.9x	13.6x	10.9x
P/Rev	3.2x	2.8x	2.9x	2.6x

Almirall: "Normalised" for exceptionals and adjusted for post-tax amortisation of intangibles

The Long View

Scenarios

Base Case

- The dermatology franchise is the key growth driver and focus both for internal R&D and M&A. Integration of the US Allergan portfolio can leverage the established S&M.
- Regular milestones plus potential royalties longer-term are due from AstraZeneca under the \$2.1bn respiratory franchise deal signed in July 2014.
- Our €20 per share Price Target is based on an NPV sum-of-the-parts valuation. We include c.€0.5/share from AZN plus c.€18/share for dermatology. This implies c.15x 2021E versus EU Large-cap peers on 16x and EU Biopharma peers on 13.5x.

Upside Scenario

- Successful execution of incremental deals leveraging the established derm franchise could be significantly accretive.
- Late-stage derm pipeline could boost profits as we assume these products only sustain modest growth. Key assets include Skilarence and Ilumetri in EU for psoriasis, Seysara in the US for acne, tirbanibulin in US and EU for actinic keratosis, lebrikizumab in EU for atopic dermatitis, ALM12834 for onychomycosis, and ALM12845 for alopecia.
- Successful execution could improve confidence in the growth trajectory, so investors value the stock on a higher 18x 2021E P/E target multiple and an upside scenario of c.€24/share.

Downside Scenario

- If management fails to integrate acquisitions and/or in-licensing deals to leverage the established dermatology S&M infrastructure, margins are likely to remain below peers, with the core business steadily eroding.
- Disappointing product launches and late-stage pipeline failures could dent sentiment and increase the reliance on M&A to sustain the core business.
- Setbacks could cut our long-term EPS forecasts for negligible growth, trimming the target multiple to 9x 2021E P/E for a €12/share downside scenario.

Investment Thesis / Where We Differ

- Key programmes in dermatology include: Skilarence (gastric-resistant formulation of dimethyl fumarate) and Ilumetri approved in Europe for psoriasis; Seysara approved in the US for acne; ALM12845 (HPCH finasteride) for male androgenetic alopecia (AGA) and ALM12834 (HPCH terbinafine) for onychomycosis, both filed in Europe; tirbanibulin (ALM14789) to be filed for actinic keratosis in the US and Europe during 1H20E, respectively; and, EU rights to lebrikizumab, in Phase III for atopic dermatitis.

Catalysts

- Regulatory filings of tirbanibulin (ALM14789) for actinic keratosis in the US and Europe during 1Q20E and 2Q20E, respectively, for potential approvals during 1H21E
- EU approvals of ALM12834 for onychomycosis and ALM12845 male AGA during 3Q20E and 4Q20E, respectively
- Incremental milestones achieved under the respiratory franchise deal with partner AZN
- In-licensing deals and/or acquisitions, most likely in dermatology

CASSIOPEA (SKIN SW)

RATING BUY	PRICE CHF40.00[^]	MARKET CAP CHF400.0M / \$411.6M
PRICE TARGET (PT) CHF70.00	UPSIDE SCENARIO PT CHF84.00	DOWNSIDE SCENARIO PT CHF9.00

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

Estimates				
€	2018A	2019E	2020E	2021E
Rev. (MM)	€0.0	€0.0	€45.0	€109.6
<i>Previous</i>			€44.9	€109.0
EBIT (MM)	€(13.2)	€(19.2)	€(38.5)	€(25.9)
<i>Previous</i>			€(38.3)	€(26.1)
Cash Position	€4.6	€1.0	€4.6	€7.4
<i>Previous</i>				
EPS	€(1.27)	€(1.96)	€(4.10)	€(3.04)
<i>Previous</i>			€(3.98)	€(2.86)

Valuation				
	2018A	2019E	2020E	2021E
P/Rev			8.2x	3.4x
EV/Rev			8.2x	3.4x
EV/EBIT	NM	NM	NM	NM
FY P/E	NM	NM	NM	NM

The Long View

Scenarios

Base Case

- Our valuation is most dependent on the successful US commercialisation of novel topical anti-androgen Winlevi for acne, which based on a 90% probability represents c.60% of our sum-of-the-parts.
- Breezula for alopecia, CB-06-01 for acne, and CB-06-02 for anogenital warts could also leverage a US S&M infrastructure and crystallise value via ex-US partnerships.
- Our CHF70 per share Price Target is based on an NPV sum-of-the-parts valuation, including potential dilution to ensure sufficient funds until YE2021E.

Upside Scenario

- Winlevi US FDA approval during 3Q20E could add c.CHF6 per share.
- Positive Breezula Phase III data in alopecia during 1H21E could be worth an incremental c.CHF2 per share.
- Licensing deal(s) for Winlevi and Breezula ex-US during 2020E could add c.CHF6 per share.
- Over a 12 month period, these catalysts, together with a number of smaller events, could boost our NPV derived Price Target to around CHF84 per share, still including potential dilution to ensure sufficient funds until YE2021E.

Downside Scenario

- Winlevi FDA concerns around safety and/or efficacy during 2020E could remove c.CHF50 per share from our valuation.
- Breezula failing to sufficiently reduce hair loss or reporting safety concerns in the Phase III trial during 1H21E could remove up to c.CHF4 per share.
- Absence of licensing deal(s) ex-US during 2020E could remove c.CHF10 per share from our valuation.
- Over a 12 month period, these setbacks could lower our NPV derived Price Target to around CHF9 per share including potential dilution to ensure sufficient funds until YE2021E.

Investment Thesis / Where We Differ

- Cassiopea was initially funded with c.€50m from its parent, Cosmo. With the lead asset Winlevi in acne now de-risked, we see significant value in Cassiopea establishing a US commercial infrastructure in dermatology to maximise this highly profitable opportunity, while out-licensing rights to other geographies.

Catalysts

- Winlevi US FDA approval around the 27 August PDUFA date
- Breezula Phase II data in female alopecia around YE20E
- Breezula Phase III alopecia trial starts 1Q20E for data during 1H21E
- Potential out-licensing deals, notably for product rights outside of the US, from 2020E

COMPUGEN LTD. (CGEN)

RATING BUY	PRICE \$6.09[^]	MARKET CAP \$409.2M
PRICE TARGET (PT) \$8.00	UPSIDE SCENARIO PT \$14.00	DOWNSIDE SCENARIO PT \$1.00

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

Estimates				
USD	2018A	2019E	2020E	2021E
Rev. (MM)	17.8	0.0	0.0	0.0
<i>Previous</i>				
EBIT (MM)	(23.2)	(28.7)	(29.1)	(31.9)
<i>Previous</i>				
Cash Position	45.7	40.8	15.1	2.4
<i>Previous</i>				
EPS	(0.41)	(0.43)	(0.43)	(0.49)
<i>Previous</i>				
Valuation				
	2018A	2019E	2020E	2021E
P/Rev	23.0x			
EV/Rev	20.5x			
EV/EBIT	NM	NM	NM	NM
FY P/E	NM	NM	NM	NM

The Long View

Scenarios

Base Case

- Compugen's *in silico* drug discovery platform is partly validated by the Bayer and BMS collaborations, in our view
- Numerous immune checkpoint targets have been identified, with experimental data for at least six, plus four linked to tumour associated macrophages. Phase I trials have been initiated for anti-PVRIG COM701 and BAY 1905254, with anti-TIGIT COM902 likely following
- Our \$8.00 per share Price Target is based on a sum-of-the-parts valuation comprising option-like NPVs for each of the prospective therapeutics, plus income from the Bayer collaboration and Net Cash, less potential dilution for sufficient funds until YE2022E

Upside Scenario

- Partner Bayer BAY1905254 anti-ILDR2 demonstrating safety plus proof-of-concept during 2020E could raise our NPV by at least \$2/share
- Proof-of-concept clinical data for lead COM701 during 2020E could increase our NPV by c.\$2.5/share
- Partnerships or preclinical validation of TAM targets could add around \$1.5/share
- Over a 12 month period, these potential catalysts could boost our NPV derived Price Target to around \$14 per share, including potential dilution for sufficient funds until YE2022E

Downside Scenario

- Discontinuation of BAY1905254 by partner Bayer could during 2020E remove around \$1/share
- Failure to demonstrate proof-of-concept for COM701 and/or safety concerns during 2020E could lower NPVs by c.\$2.5/share
- No progress with the TAM targets could remove up to \$3.5/share
- Over a 12 month period, these setbacks, could reduce our NPV derived Price Target to around \$1 per share, including potential dilution for sufficient funds until YE2022E

Investment Thesis / Where We Differ

- c.\$48m Cash at 30 September 2019 should be sufficient to fund operations into 2Q21E
- Our cash burn forecasts exclude potential upsides from incremental out-licensing deals or future milestone income

Catalysts

- Future potential pipeline out-licensing deals could crystallise value
- Successfully achieving milestones in the Bayer alliance
- Updates on the Phase I COM701 trial with initial Opdivo combination data potentially 1H20E
- Initiation of a Phase I trial for COM902 during 1Q20E
- Advancement of additional targets for multiple immune checkpoints for cancer immunotherapy, including one or more to be taken towards future clinical trials in oncology by Compugen

COSMO (COPN SW)

RATING BUY	PRICE CHF74.50[^]	MARKET CAP €1.0B / \$1.1B
PRICE TARGET (PT) CHF150.00	UPSIDE SCENARIO PT CHF175.00	DOWNSIDE SCENARIO PT CHF70.00

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

Estimates				
€	2018A	2019E	2020E	2021E
Rev. (MM)	65.6	46.7	76.8	96.5
<i>Previous</i>			77.1	96.9
EBIT (MM)	(16.6)	(17.2)	10.9	28.9
<i>Previous</i>		(17.3)	11.1	29.2
Cash Position	349.4	296.2	286.2	322.8
<i>Previous</i>			286.3	323.2
EPS	(1.20)	(1.74)	(0.04)	1.22
<i>Previous</i>		(1.75)	(0.02)	1.24

Valuation				
	2018A	2019E	2020E	2021E
P/Rev	15.4x	21.7x	13.2x	10.5x
EV/Rev	13.0x	18.2x	11.1x	8.8x
EV/EBIT	NM	NM	78.1x	29.5x
FY P/E	NM	NM	NM	56.4x

Cosmo: We exclude exceptional gains/losses such as on the sale of investments and demerger of entities.

The Long View

Scenarios

Base Case

- Cosmo aims to leverage its MMX colon drug delivery technology, maximise the value of GI products in the US market, and demerge assets as new entities to crystallise value in tax-efficient deals.
- The current share price undervalues marketed drugs Lialda and Uceris for ulcerative colitis, colonoscopy diagnostic methylene blue MMX, antibiotic Aemcolo/Rifaxalk (rifamycin SV MMX), plus other pipeline assets.
- Our CHF150 share Price Target is based on an NPV sum-of-the-parts.

Upside Scenario

- Positive PoC data for antibiotic Aemcolo/Rifaxalk for IBS-d during 2Q20E and other GI indications could add around CHF3/share.
- Gaining EU approval of methylene blue MMX during 1Q20E and a faster US trial than we anticipate could add c.CHF7/share.
- Cassiopea shares could rise towards our upside scenario boosting the value of Cosmo's investment by c.CHF9.5/share.
- Over a 12 month period, these catalysts, together with a number of smaller events, could boost our NPV derived Price Target to c.CHF175.

Downside Scenario

- Prolonged regulatory delays for methylene blue MMX or its discontinuation during 2020E could remove at least CHF40/share.
- ByFavo regulatory concerns or delays to approval for procedural sedation during 1H20E could remove at least CHF19/share.
- Cassiopea shares could decline towards our downside scenario lowering the value of Cosmo's investment by c.CHF14/share.
- Over a 12 month period, these setbacks could lower our NPV derived Price Target to c.CHF70.

Investment Thesis / Where We Differ

- Cosmo is committed to returning to profitability from 2020E and management has in the past returned excess cash to shareholders. We anticipate management to execute "equity-for-product rights" deals and/or establish NewCo's to maximise the value of US commercial opportunities in tax efficient structures.

Catalysts

- MB MMX European approval around 1Q20E
- Aemcolo/Rifaxalk Phase II data in IBS-d during 2Q20E
- Start of second MB MMX Phase III trial during 2Q20E
- GI Genius artificial intelligence device US trial completion 2Q20E and launch shortly thereafter
- ByFavo/remimazolam US approval around the 5 April 2020 PDUFA date
- Potential incremental distribution deals, including Aemcolo in Latin America & Asia

ERYTECH PHARMA (ERYP FP)

RATING BUY	PRICE €5.95[^]	MARKET CAP €106.5M / \$118.7M
PRICE TARGET (PT) €23.00 (FROM €27.00)	UPSIDE SCENARIO PT €48.00	DOWNSIDE SCENARIO PT €0.50

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

ERYTECH PHARMA (ERYP)

RATING BUY	PRICE \$6.73[^]	MARKET CAP €108.1M / \$120.4M
PRICE TARGET (PT) \$26.00 (FROM \$30.00)	UPSIDE SCENARIO PT \$54.00	DOWNSIDE SCENARIO PT \$0.60

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

Estimates				
€	2018A	2019E	2020E	2021E
Rev. (MM)	4.4	5.5	3.5	2.5
<i>Previous</i>				
EBIT (MM)	(43.6)	(58.7)	(54.6)	(53.5)
<i>Previous</i>				
Cash Position	134.4	59.1	3.0	2.9
<i>Previous</i>		59.7		
EPS	(2.13)	(3.20)	(3.03)	(3.09)
<i>Previous</i>				

Valuation				
	2018A	2019E	2020E	2021E
EV/Rev	8.0x	6.4x	10.1x	14.1x
P/Rev	24.2x	19.4x	30.4x	42.6x
EV/EBIT	NM	NM	NM	NM
FY P/E	NM	NM	NM	NM

The Long View

Scenarios

Base Case

- Positive Phase IIb data for eryaspase in 2nd-line pancreatic cancer, demonstrating a significant benefit on overall survival, could drive substantial commercial potential.
- Our current valuation attributes no NPVs to the expansion of eryaspase development to include triple negative breast cancer (TNBC) and potentially other solid tumours.
- Our €23 per share (\$26/ADS) Price Target comprises a risk-adjusted NPV for eryaspase in pancreatic cancer plus Net Cash, less potential dilution to ensure sufficient funds for two years.

Upside Scenario

- Positive Phase III 2nd-line pancreatic cancer results during 3Q20E could potentially add around €13/share.
- Eryaspase proof-of-concept clinical data in other solid tumours, such as TNBC around YE20E, could add around €6.5/share.
- Positive data in 1st-line pancreatic cancer from the planned Phase I trial could add at least €5/share.
- Over a 12 month period, these catalysts could boost our NPV derived Price Target to c.€48/share (\$54/ADS) including potential dilution to ensure sufficient funds until YE2021E. Proof-of-concept applying the ERYCAPS technology for other uses provides upside.

Downside Scenario

- Discontinued development of eryaspase for pancreatic cancer during 2020-21E could remove at least €20 per share.
- Manufacturing and/or logistics concerns could weigh on the shares.
- Over a 12 month period these potential setbacks could reduce our NPV derived Price Target to c.€0.5/share (\$0.6/ADS), still including potential dilution to ensure sufficient funds until YE2021E.

Investment Thesis / Where We Differ

- €82m (\$89m) Cash at 30 September 2019 should be sufficient to fund operations to YE20E.
- The current cash runway should be sufficient to fund operations through key pancreatic cancer data interim superiority analysis expected 3Q20E, albeit likely insufficient to reach the final analysis during 1H21E.

Catalysts

- GRASPA (eryaspase) Phase II 2nd-line ALL "allergic" data around 1Q20E
- Eryaspase Phase III 2nd-line pancreatic cancer interim analysis during 3Q20E, for final data during 1H21E
- Erymethionase begins Phase I trials in 1H20E
- Eryaspase Phase I 1st-line pancreatic cancer trial to start during 3Q20E
- Eryaspase Phase II TNBC initial data around YE20E

GALAPAGOS (GLPG NA)

RATING HOLD	PRICE €183.40[^]	MARKET CAP €11.9B / \$13.2B
PRICE TARGET (PT) €170.00	UPSIDE SCENARIO PT €195.00	DOWNSIDE SCENARIO PT €100.00

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

GALAPAGOS (GLPG)

RATING HOLD	PRICE \$206.26[^]	MARKET CAP €12.0B / \$13.3B
PRICE TARGET (PT) \$190.00 (FROM \$187.00)	UPSIDE SCENARIO PT \$218.00	DOWNSIDE SCENARIO PT \$112.00

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

Estimates				
€	2018A	2019E	2020E	2021E
Rev. (MM)	317.8	916.3	645.7	601.7
<i>Previous</i>			648.3	604.0
EBIT (MM)	(44.8)	373.2	(115.3)	(257.0)
<i>Previous</i>			(113.1)	(254.6)
Cash Position	1,290.8	5,922.3	5,503.8	4,955.8
<i>Previous</i>		5,924.2	5,502.6	4,950.7
EPS	(0.56)	6.87	(1.33)	(3.33)
<i>Previous</i>			(1.29)	(3.29)

Valuation				
	2018A	2019E	2020E	2021E
P/Rev	37.3x	12.9x	18.4x	19.7x
EV/Rev	19.8x	6.9x	9.7x	10.5x
EV/EBIT	NM	16.9x	NM	NM
FY P/E	NM	26.7x	NM	NM

The Long View

Scenarios

Base Case

- Lead product filgotinib underpins much of our valuation and remains the focus. We are encouraged by its competitive profile in the Phase III FINCH RA programme and Phase II FITZROY Crohn's trial. Partner Gilead should be well-placed to maximise its commercial potential.
- Numerous other pipeline programmes could also crystallise value via possible milestones from the broad R&D opt-in alliance with Gilead, in particular in lung fibrosis (IPF) and osteoarthritis. However, we find insufficient upside at the current share price, which along with a lack of significant near-term stock-moving catalysts, dictates our Hold.
- Price Target €170/\$190 per share/ADS largely comprising filgotinib, GLPG1690, and GLPG1972 NPVs plus Net Cash.

Upside Scenario

- Filgotinib approvals in the US, Europe and Japan during 2020E could add around c.€8/share
- Positive filgotinib data in ulcerative colitis and Crohn's during 1H20E and 1H21E, respectively, could potentially add at least c.€3.5/share
- Positive initial Toledo proof-of-concept data during 2020E could add c.€2.5/share
- Positive Phase III ISABELA results for GLPG1690 in idiopathic pulmonary fibrosis during 1Q21E could add around €9/share
- Over a 12 month period, these potential catalysts could boost our NPV derived Price Target to c.€195/\$218 per share/ADS

Downside Scenario

- Safety concerns for filgotinib during 2020E could remove around €50/share from our valuation
- Efficacy and/or safety concerns in the filgotinib Phase III Crohn's or ulcerative colitis during 2020-21E trials could remove up to €11.5/share
- Efficacy or safety concerns for GLPG1690 in IPF during 1Q21E could remove at least €9/share
- Over a 12 month period, these setbacks could reduce our NPV derived Price Target to c.€100/\$112 per share/ADS

Investment Thesis / Where We Differ

- The c.€5.6bn Cash at 30 September 2019, including the c.\$5bn proceeds from the Gilead deal, should be more than sufficient to fund operations for the foreseeable future.
- If successfully developed, Galapagos could commercialise GLPG1690 itself in Europe for the Orphan Disease IPF, which could provide a potentially lucrative long-term opportunity.

Catalysts

- GLPG1205 Phase IIa PINTA IPF data 1Q20E
- Toledo first-gen GLPG3312 Phase I data 1Q20E
- Filgotinib Phase IIb/III SELECTION ulcerative colitis data in 2Q20E for potential filings during 2H20E
- Filgotinib RA approvals and launches across US, EU and Japan from 2H20E
- GLPG1690 Phase IIa NOVESA systemic sclerosis data 3Q20E
- Phase IIb ROCCELLA GLPG1972 osteoarthritis data YE20E
- GLPG1690 Phase III IPF futility analysis 1Q21E

GENMAB A/S (GMAB)

RATING BUY	PRICE \$21.39[^]	MARKET CAP \$13.9B
PRICE TARGET (PT) \$28.00 (FROM \$27.00)	UPSIDE SCENARIO PT \$33.00	DOWNSIDE SCENARIO PT \$17.00

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

GENMAB A/S (GMAB DC)

RATING BUY	PRICE DKK1,419.50[^]	MARKET CAP DKK92.4B / \$13.8B
PRICE TARGET (PT) DKK1,900.00 (FROM DKK1,850.00)	UPSIDE SCENARIO PT DKK2,200.00	DOWNSIDE SCENARIO PT DKK1,100.00

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

Estimates				
USD	2018A	2019E	2020E	2021E
EPS	0.38	0.62	0.36	0.63
Previous				0.62

Valuation				
	2018A	2019E	2020E	2021E
FY P/E	56.3x	34.5x	59.4x	34.0x

The Long View

Scenarios

Base Case

- We see further upside from Darzalex in MM as it is likely to become the standard of care across all lines of therapy for WW peak sales of at least \$10bn
- We anticipate multiple pipeline catalysts to potentially drive the stock, plus the broad early-stage pipeline and incremental antibody tech platform partnership deals
- Price Target DKK1900/\$28 per share/ADS based on NPVs largely for Darzalex in MM, plus ofatumumab royalties, tisotumab vedotin, the Janssen DuoBody collaboration, and Net Cash

Upside Scenario

- Encouraging efficacy for Darzalex in Phase III trials studying indications beyond MM, starting with AL amyloidosis during 2Q20E, could add c.DKK70/share, whilst higher MM peak sales of \$11bn could add c.DKK160/share
- Positive tisotumab vedotin pivotal Phase II cervical cancer data during 1Q20E could add c.DKK20/share
- Encouraging Phase I GEN3013 data in lymphomas triggering partnership could add c.DKK30/share
- Encouraging Phase II results for enapotamab vedotin and Phase I data for HexaBody-DR5/DR5, both in solid tumours during 1H20E, could add c.DKK25 and DKK35 per share, respectively
- Catalysts over the next 12 months could boost our NPV derived PT to c.DKK2200/\$33 per share/ADS

Downside Scenario

- Poor efficacy of Darzalex in non-MM indications during 2020E cuts NPVs by c.DKK120/share, whilst MM peak sales of only \$6bn would lower NPVs by c.DKK515/share
- Insufficient efficacy or safety concerns for tisotumab vedotin during 1Q20E could remove c.DKK60/share
- Efficacy or safety concerns in the GEN3013 Phase I for lymphomas could remove c.DKK30/share
- Failure of HexaBody-DR5/DR5 Phase I in solid tumours, or enapotamab vedotin Phase II in solid tumours during 2020E could cut NPVs by up to DKK15 and DKK25/ share, respectively
- Setbacks over the next 12 months could reduce our NPV derived PT to c.DKK1100/\$17 per share/ADS

Investment Thesis / Where We Differ

- We forecast sustainable profitability, even as R&D spend on the early-stage internal programmes ramps-up, with Darzalex catapulting the earnings trajectory from 2016.
- c.DKK10.9bn (c.\$1.6bn) Net Cash at 30 Sep 2019 is sufficient to maximise the value of the pipeline and technology platforms. Future out-licensing deals and preclinical assets are potential upside

Catalysts

- Tisotumab vedotin pivotal Phase II cervical cancer data during 1Q20E potentially enabling filings during 2H20E, along with solid tumour basket study data during 1H20E
- Darzalex Phase III ANDROMEDA data in AL amyloidosis during 2Q20E
- Potential approval of Darzalex subcutaneous formulation around mid-2020E
- Ofatumumab regulatory approvals for relapsing multiple sclerosis around YE20E

IDORSIA (IDIA SW)

RATING HOLD	PRICE CHF28.96[^]	MARKET CAP CHF3.8B / \$3.9B
PRICE TARGET (PT) CHF26.00 (FROM CHF22.00)	UPSIDE SCENARIO PT CHF30.00	DOWNSIDE SCENARIO PT CHF15.00

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

Estimates				
CHF	2018A	2019E	2020E	2021E
Rev. (MM)	60.6	35.3	27.3	16.0
<i>Previous</i>		26.2	27.4	16.2
EBIT (MM)	(371.1)	(496.9)	(561.7)	(567.9)
<i>Previous</i>		(506.0)		(567.7)
Cash Position	1,226.6	733.4	190.8	47.9
<i>Previous</i>		725.8	181.7	
EPS	(3.04)	(3.77)	(4.27)	(4.37)
<i>Previous</i>		(3.84)		

Valuation				
	2018A	2019E	2020E	2021E
P/Rev	62.7x	NM	NM	NM
EV/Rev	58.5x	NM	NM	NM
EV/EBIT	NM	NM	NM	NM
FY P/E	NM	NM	NM	NM

The Long View

Scenarios

Base Case

- The broad clinical pipeline consisting of a number of fully-owned and collaborative/partnered Phase II/III assets, plus a growing number in Phase I, provides potential for multiple shots on goal, backed by experienced management and a cash pile.
- Aprocitan for resistant hypertension is a key value driver, with our WW peak sales of c.\$2.4bn at 60% probability potentially conservative.
- Our CHF26 per share Price Target comprises NPVs for Phase II/III pipeline assets, ponesimod royalties and Net Cash less potential dilution to ensure sufficient funds for three years.

Upside Scenario

- Positive Phase III results for aprocitan in resistant hypertension during 1H21E could add c.CHF3/share
- Positive clazosentan pivotal data in aSAH in Japan during 3Q20E could add up to CHF3/share
- Positive Phase III insomnia data for DORA daridorexant during 2020E could add at least CHF2/share
- Positive cenerimod Phase II data in systemic lupus erythematosus during 1H21E could add up to CHF1.5/share
- Over a 12 month period, these potential catalysts, plus several other smaller events, could boost our NPV derived Price Target to around CHF30/share

Downside Scenario

- Efficacy and/or safety concerns in Phase III for aprocitan in resistant hypertension during 1H21E could remove c.CHF10/share
- Negative regulatory decisions for ponesimod in RMS around YE20E could lower NPVs by around CHF2/share
- Discontinuation of clazosentan to treat aSAH during 2020E could lower our valuation by at least CHF1/share
- Safety and/or efficacy concerns for DORA daridorexant in insomnia during 2020E could remove at least CHF6.5/share
- Over a 12 month period, these setbacks, plus several other smaller events, could reduce our NPV derived Price Target to c.CHF15/share.

Investment Thesis / Where We Differ

- We estimate CHF875m cash and investments at 30 September 2019 is sufficient to fund operations into 2021E, inclusive of sharing aprocitan development costs equally with JNJ after the pharma opted-in. We exclude any potential income from out-licensing deals or other collaborations.
- By 2021E multiple clinical trial readouts and other catalysts could crystallise value.

Catalysts

- Phase II data for '774312 in nasal polyposis in early-2020E
- Phase III daridorexant data in insomnia during 2Q20E and 3Q20E
- Japan Phase III clazosentan aSAH during 3Q20E
- Regulatory approvals of ponesimod for multiple sclerosis during 4Q20
- During 2021E we expect Phase III data for (1) lucerastat in Fabry disease; and (2) aprocitan in resistant hypertension

INVENTIVA S.A. (IVA FP)

RATING BUY	PRICE €3.96[^]	MARKET CAP €106.1M / \$118.2M
PRICE TARGET (PT) €6.50	UPSIDE SCENARIO PT €9.00	DOWNSIDE SCENARIO PT €0.50

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

Estimates				
€	2018A	2019E	2020E	2021E
Rev. (MM)	3.2	6.1	2.0	1.6
<i>Previous</i>		2.6	5.0	
EBIT (MM)	(29.9)	(37.3)	(34.0)	(27.5)
<i>Previous</i>		(40.8)	(30.9)	
Cash Position	56.7	28.4	2.9	2.3
<i>Previous</i>		25.0		
EPS	(1.47)	(1.58)	(1.28)	(1.09)
<i>Previous</i>		(1.73)	(1.18)	(1.11)

Valuation				
	2018A	2019E	2020E	2021E
P/Rev	33.2x	17.4x	53.1x	66.3x
EV/Rev	21.7x	11.4x	34.7x	43.3x

The Long View

Scenarios

Base Case

- Lead product lanifibranor is in a Phase IIb trial for non-alcoholic steatohepatitis (NASH); successful development could generate blockbuster sales
- We believe odiparcil for MPS VI is underappreciated. Its approval could be a potential game-changer for Inventiva, propelling earnings from 2023E
- Our €6.5/share Price Target comprises NPVs for lanifibranor and odiparcil, together with Net Cash, including potential dilution to ensure sufficient funds until YE2022E.

Upside Scenario

- Positive lanifibranor Phase IIb NATIVE results in NASH during 2Q20E could add up to c.€2.5/share
- Positive Phase I data for ABBV-157 during 2020E and partner AbbVie proceeding to Phase II could add c. €0.4/share
- Positive odiparcil Phase Ib paediatric data during 2021E enabling the start of a pivotal Phase III programme could add around €2.5/share
- Over a 12 month period, these potential catalysts, together with a number of smaller events could boost our NPV derived Price Target to around €9/share, still including potential dilution for sufficient funds until YE2022E.

Downside Scenario

- Efficacy or safety concerns in the lanifibranor Phase IIb NATIVE trial in NASH during 2Q20E could remove around €7/share
- Efficacy or safety concerns in the odiparcil paediatric study during 2020-21E could remove up to €3/share
- Over a 12 month period, these setbacks, including potential dilution for sufficient funds until YE2022E, could reduce our NPV derived Price Target to around €0.5/share.

Investment Thesis / Where We Differ

- Cash of €35m at 30 September should be sufficient to fund operations into 3Q20E, by which time we should have Phase IIb data for lanifibranor in NASH, which could secure the partnership and/or funds required for continued development.

Catalysts

- Lanifibranor Phase IIb NATIVE NASH data during 2Q20E
- Odiparcil MPS VI biomarker data and start of Phase Ib paediatric MPS VI study during 1H20E
- Data from the Phase I trial of AbbVie-partnered ABBV-157 during 1H20E
- Data from the Phase II investigator-sponsored study of lanifibranor in patients with type 2 diabetes and non-alcoholic fatty liver disease during 2H20E

IPSEN (IPN FP)

RATING ■ HOLD	PRICE €78.65 [^]	MARKET CAP €6.6B / \$7.3B
PRICE TARGET (PT) €90.00 (FROM €135.00)	UPSIDE SCENARIO PT €115.00	DOWNSIDE SCENARIO PT €70.00

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

Estimates				
€	2018A	2019E	2020E	2021E
Rev. (MM)	2,348.4	2,693.8	2,973.4	3,170.1
<i>Previous</i>		2,692.1	2,944.8	
EBIT (MM)	659.8	791.9	914.7	993.5
<i>Previous</i>		790.4	899.3	995.2
EPS-GAAP	4.70	6.03	7.37	7.69
<i>Previous</i>		6.02	7.22	7.71
EPS	5.93	7.13	8.35	9.08
<i>Previous</i>		7.12	8.20	9.09

Valuation				
	2018A	2019E	2020E	2021E
P/Rev	2.8x	2.4x	2.2x	2.1x
FY P/E GAAP	16.7x	13.0x	10.7x	10.2x
EV/Rev	3.4x	3.0x	2.7x	2.6x
EV/EBIT	12.3x	10.2x	8.8x	8.1x
FY P/E	13.3x	11.0x	9.4x	8.7x

The Long View

Scenarios

Base Case

- We are optimistic Somatuline can sustain near-term blockbuster sales, with generic erosion from 2021+E.
- We believe management's 2022E 32% Core Operating Margin is a floor, assuming likely "worst case" generic competition for Somatuline, with potential for significant upside should generics be delayed.
- However, we believe the overhang from the uncertain timing and impact of generic competition for Somatuline is unlikely to abate during 2020E, dictating our Hold.
- Price Target €90 per share based on 10x 2021E P/E, assuming a 25% discount to peers, below our €115 fundamental NPV sum-of-the-parts.

Upside Scenario

- No Sandostatin LAR generics or Somatuline generics securing US and WW regulatory approvals, respectively, could add around €20/share
- Lifting of US FDA partial clinical trial hold on ongoing palovarotene studies in rare bone disorders could add around €8/share
- Higher 40% adoption of Cabometyx for 1st line RCC, above our 25% base case, for \$655m peak sales could add at least €3/share
- Over a 12-month period, these catalysts would justify the stock trading in-line with the value of the marketed and pipeline products implied by our NPV sum-of-the-parts valuation, for an upside scenario of €115/share

Downside Scenario

- Somatuline generics successfully capturing 3x greater market share than our base case could cut NPVs by c.€20/share
- US Sandostatin LAR generics launching earlier in 2020E, versus our 2021E base case, could lower NPVs by around €3/share
- Lingering safety concerns preventing lifting of the US FDA partial clinical hold on ongoing palovarotene studies could remove around €1/share
- Lower 15% adoption of Cabometyx for 1st line RCC, below our 25% base case, for \$480m peak sales could remove c.€2/share
- Over a 12-month period these potential setbacks would justify a greater discount to peers of c.40%, for an 8x 2021E target multiple and downside scenario of c.€70/ share

Investment Thesis / Where We Differ

- We believe the overhang from the uncertain timing and impact of Somatuline generic competition is unlikely to abate during 2020E. This, combined with the CEO's recent departure and increased uncertainty over palovarotene for rare bone disorders following the FDA partial clinical trial hold, dictates our Hold.

Catalysts

- Palovarotene filings for FOP flare-ups during 1Q20E for potential approval by YE20E, plus regulatory clarity on the path forward for the ongoing Phase III MOVE and Phase II MO-Ped chronic dosing studies during 1Q20E
- Satoreotide (PRRT) Phase I/II data during 1Q20E
- Cabozantinib Phase III 1st line RCC +PD-1 (CM-9ER) data during 1H20E and Phase III 1st line HCC +/- PDL1 (COSMIC-312) data during 2H20E

LONZA GROUP AG (LONN SW)

RATING BUY	PRICE CHF351.20 [^]	MARKET CAP CHF26.2B / \$26.9B
PRICE TARGET (PT) CHF420.00 (FROM CHF395.00)	UPSIDE SCENARIO PT CHF470.00	DOWNSIDE SCENARIO PT CHF260.00

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

Estimates				
CHF	2018A	2019E	2020E	2021E
Rev. (MM)	6,058.0	5,977.1	6,304.8	6,924.8
<i>Previous</i>			6,368.5	6,995.2
EBIT (MM)	1,165.0	1,238.6	1,348.6	1,556.5
<i>Previous</i>			1,403.6	1,615.3
EPS-GAAP	7.48	8.70	11.37	13.62
<i>Previous</i>			11.97	14.25
EPS	11.98	12.53	13.23	15.47
<i>Previous</i>			13.83	16.10

Valuation				
	2018A	2019E	2020E	2021E
P/Rev	4.3x	4.4x	4.1x	3.8x
FY P/E GAAP	47.0x	40.4x	30.9x	25.8x
EV/Rev	4.9x	4.9x	4.7x	4.3x
EV/EBIT	25.4x	23.8x	21.9x	19.0x
FY P/E	29.3x	28.0x	26.5x	22.7x

Lonza: Our adjusted profits exclude one-offs and amortisation of acquired intangibles

The Long View

Scenarios

Base Case

- Restructuring and operational efficiency programmes have been executed to deliver improved profitability.
- Our longer-term positive thesis is intact, with potentially conservative Capsugel synergies and attractive market dynamics, notably for drug Pharma Biotech contract manufacturing, underpinning confidence in a low double-digit EPS CAGR.
- CHF420 Price Target is based on the average of 2021E EV/EBITDA multiples for the two divisions and a DCF valuation. Our PT implies a 27x 2021E P/E multiple.

Upside Scenario

- Greater utilisation and high customer demand for Pharma Biotech manufacturing capabilities
- Acceleration in demand for novel cell & gene therapy manufacturing technologies, where Lonza is well-placed
- Achieving greater revenue and cost synergies from integration of Capsugel
- Achieving greater operating efficiencies, notably from the LSI carve-out, for higher adjusted EBITDA margins
- These scenarios could lead investors to value the stock on a higher 30x 2021E P/E target multiple for an upside scenario of c.CHF470 per share.

Downside Scenario

- Lower demand and failure to pass regulatory site inspections for Pharma Biotech manufacturing facilities
- Deceleration in demand for novel cell & gene therapy manufacturing technologies
- Delays to, or lower, revenue and cost synergies from integration of Capsugel
- Increasing CMO competition and potential pricing pressure
- Reduced operating efficiencies for lower adjusted EBITDA margins
- Setbacks could cut our long-term EPS forecasts and trim the target multiple to 17x 2021E P/E, for a downside scenario of c.CHF260 per share.

Investment Thesis / Where We Differ

- Our c.CHF460 per share sum-of-the-parts valuation assumes 2021E EV/EBITDA multiples of c.16x for Lonza Pharma Biotech & Nutrition, and c.13x for Lonza Specialty Ingredients. Our DCF valuation methodology derives a fair value around CHF385/share.
- We believe management's 2022 aims underscore its confidence in the visibility on sales growth and operational performance. Our top-line is ahead of the CHF7.1bn 2022E Sales target, albeit we are just shy of 30.5% 2022E EBITDA margin aim.

Catalysts

- Update on search for replacement CEO during 2020E
- 2019 results on 21 January 2020

LUNDBECK (LUN DC)

RATING HOLD	PRICE DKK250.00[^]	MARKET CAP DKK49.8B / \$7.4B
PRICE TARGET (PT) DKK240.00 (FROM DKK245.00)	UPSIDE SCENARIO PT DKK290.00	DOWNSIDE SCENARIO PT DKK170.00

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

Estimates				
DKK	2018A	2019E	2020E	2021E
Rev. (MM)	18,117.0	16,893.7	18,538.0	18,017.3
<i>Previous</i>		16,854.5	18,516.8	18,002.4
EBIT (MM)	5,843.6	4,629.4	3,762.7	3,182.3
<i>Previous</i>		4,594.2	3,751.8	3,174.3
EPS-GAAP	19.67	12.71	9.37	8.80
<i>Previous</i>		12.58	9.33	8.78
EPS	22.25	17.16	14.03	11.71
<i>Previous</i>		17.03	13.99	11.68

Valuation				
	2018A	2019E	2020E	2021E
FY P/E GAAP	12.7x	19.7x	26.7x	28.4x
EV/Rev	2.5x	2.7x	2.5x	2.6x
P/Rev	2.7x	2.9x	2.7x	2.8x
EV/EBIT	7.9x	9.9x	12.2x	14.4x
FY P/E	11.2x	14.6x	17.8x	21.3x

Lundbeck: Adjusted operating income

The Long View

Scenarios

Base Case

- Rexulti, Trintellix/Brintellix, Abilify Maintena and eptinezumab sales should sustain top-line growth until at least 2026E
- Excess capital is likely to be deployed to further expand the pipeline, seeking external innovation across all phases of development, putting pressure on margins, with the margin likely to be depressed below the 25% EBIT floor during the 2020-22E transition period
- We believe longer-term growth momentum and cash returns are fairly reflected by the current share price
- Our DKK240 per share Price Target is based on a fundamental NPV sum-of-the-parts valuation

Upside Scenario

- Positive AG06466 (MGLLI) Phase IIa Tourette's data in 1Q20E could add up to c.DKK14/share
- Positive foliglurax (mGluR4) Phase IIa PD-LID data during 2Q20E could add around DKK6/share
- Positive AF11167 (PDE-10 inhibitor) Phase II data in negative symptoms of schizophrenia during 1H21E and further development could be worth up to c.DKK12/share
- US Trintellix trajectory accelerating for peak sales of \$2.1bn could potentially add c.DKK20/share
- Over a 12 month period, these potential catalysts could boost our NPV sum-of-the-parts valuation for an upside scenario around DKK290/share

Downside Scenario

- Safety and/or efficacy concerns in the Phase IIa foliglurax PD-LID trial during 2Q20E could remove c.DKK9/share NPV
- Failure of the third Rexulti Phase III AD-agitation trial during 1H21E could remove around DKK40/share
- If the US Trintellix trajectory stalls for peak sales of only \$1.2bn this could potentially remove c.DKK8/share NPV
- Discontinuation of AF11167 for psychiatric disorders during 1H21E could remove c.DKK7/share NPV
- Over a 12 month period, these setbacks could reduce our NPV sum-of-the-parts valuation to around DKK170/share.

Investment Thesis / Where We Differ

- We forecast WW peak sales of \$3.1bn for antipsychotic Rexulti across all indications in partnership with Otsuka, including c.\$2.5bn in the US of which \$1.4bn is for treating agitation in patients with dementia of the Alzheimer's type and post-traumatic stress disorder.
- Our Brintellix/Trintellix WW peak sales are c.\$1.8bn with partner Takeda, including \$1.3bn in the US.
- Abilify Maintena contributes \$1.3bn WW peak sales, also in collaboration with Otsuka.

Catalysts

- Eptinezumab US FDA approval for migraine prevention around the 21 Feb PDUFA decision date
- Phase IIa Tourette's data for '06466 during 1Q20E
- Foliglurax Phase IIa Parkinson's disease (PD) results in patients with levodopa-induced dyskinesia 1Q20E
- Phase I PD results for '82422 (anti-alpha-synuclein antibody) during 2H20E
- Phase II results for AF11167 in negative symptoms of schizophrenia during 1H21E

NANOBIOTIX SA (NANO FP)

RATING BUY	PRICE €8.39 [^]	MARKET CAP €186.1M / \$207.4M
PRICE TARGET (PT) €16.00 (FROM €21.00)	UPSIDE SCENARIO PT €25.00	DOWNSIDE SCENARIO PT €1.00

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

Estimates				
€	2018A	2019E	2020E	2021E
Rev. (MM)	3.5	3.8	8.9	10.4
<i>Previous</i>			10.6	17.2
Cash Position	36.2	42.9	5.4	4.2
<i>Previous</i>		41.2	4.0	4.6
EBIT (MM)	(30.1)	(39.3)	(38.8)	(42.6)
<i>Previous</i>		(41.3)	(39.7)	(40.3)
EPS	(1.55)	(2.07)	(1.84)	(2.07)
<i>Previous</i>		(2.17)	(1.88)	(1.97)

Valuation				
	2018A	2019E	2020E	2021E
P/Rev	53.2x	49.0x	20.9x	17.9x
EV/Rev	51.1x	47.1x	20.1x	17.2x
EV/EBIT	NM	NM	NM	NM
FY P/E	NM	NM	NM	NM

The Long View

Scenarios

Base Case

- NBTXR3 is a proprietary, first-in-class nanoparticle radioenhancer that aims to widen the therapeutic window and clinical benefit of radiotherapy for solid tumours
- Price Target €16 per share comprising NPVs for NBTXR3 in soft tissue sarcoma (STS) and head & neck (H&N) cancer plus Net Cash, less potential dilution to ensure sufficient funds until YE2022E
- NBTXR3 has blockbuster potential from wider use, in addition to use as an *in situ* vaccine for immunology combos

Upside Scenario

- Successfully securing favourable EU reimbursement for NBTXR3 during 2020E could add up to €1/share
- Positive NBTXR3 Phase I/II H&N cancer data during 2020E could add around €3.5/share, with nearly €4/share potential upside from encouraging initial results in other cancers
- Over a 12 month period, these potential catalysts, together with a number of smaller events, could boost our NPV-derived Price Target to €25/share, still including potential dilution to ensure sufficient funds until YE2022E

Downside Scenario

- Setbacks securing EU reimbursement for NBTXR3 during 2020E could remove up to €1/share
- Efficacy or safety concerns in the NBTXR3 Phase I/II H&N cancer study during 2020E could remove at least c.€13.5/share
- Over a 12 month period, these setbacks could lower our NPV-derived Price Target to €1/share, still including potential dilution to ensure sufficient funds until YE2022E

Investment Thesis / Where We Differ

- We believe c.€47m cash reported at 30 September 2019, along with the remaining €10m loan facility from the EIB, is adequate to fund cash burn well into 4Q20E, beyond a number of key catalysts for the shares. However, incremental funding will likely be required to develop NBTXR3 across all indications, in addition to building an S&M infrastructure in the US and Europe. We do not include possible future out-licensing deals in our base case forecasts.

Catalysts

- US NBTXR3 Phase III trial in head and neck (H&N) to initiate during 2020E
- NBTXR3 Phase I/II data in liver cancers (HCC and mets) 1Q20E
- NBTXR3 Phase I/II dose expansion H&N cancer data around mid-2020E
- NBTXR3 +PD1 combo data around mid-2020E

NEWRON PHARMACEUTICALS S.P.A. (NWRN SW)

RATING BUY	PRICE CHF6.10 [^]	MARKET CAP €100.3M / \$111.7M
PRICE TARGET (PT) CHF40.00	UPSIDE SCENARIO PT CHF75.00	DOWNSIDE SCENARIO PT CHF6.00

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

Estimates				
€	2018A	2019E	2020E	2021E
EPS	(0.84)	(1.47)	(2.44)	2.85
<i>Previous</i>		(1.45)	(2.00)	4.04
Cash Position	43.9	28.4	8.3	60.1
<i>Previous</i>		28.7	15.5	86.9
EBIT (MM)	(15.0)	(26.6)	(41.8)	54.1
<i>Previous</i>		(26.3)	(34.0)	75.4
Rev. (MM)	4.0	8.5	10.8	120.4
<i>Previous</i>		8.8	19.3	144.0

Valuation				
	2018A	2019E	2020E	2021E
FY P/E	NM	NM	NM	2.0x
EV/Rev	17.6x	8.3x	6.5x	0.6x
P/Rev	25.1x	11.8x	9.3x	0.8x

The Long View

Scenarios

Base Case

- We believe sarizotan for orphan disease Rett Syndrome is the key value driver. Its approval could be a potential game-changer for Newron, propelling earnings from 2021E
- Pure-profit royalty income from partners on Xadago sales in Parkinson's disease (PD) provide a floor for the shares, with upside from potential pipeline out-licensing deals
- Our CHF40/share Price Target comprises NPVs for Xadago, sarizotan, and evenamide, together with Net Cash

Upside Scenario

- Higher 15% US adoption of Xadago for PD in combination with L-dopa, above our 6% base case, could add c.CHF4/share
- Positive Phase III STARS results in Rett Syndrome for sarizotan during 1Q20E could add up to c.CHF25/share
- Timely initiation of Phase III studies of evenamide as an add-on with antipsychotics and for clozapine treatment resistant schizophrenia during 1H20E could add CHF4/share
- Over a 12 month period, these potential catalysts, together with a number of smaller events, could boost our NPV derived Price Target to CHF75/share

Downside Scenario

- Much lower 3% US adoption of Xadago for PD in combination with L-dopa, below our 6% base case, could remove c.CHF1.5/share
- Efficacy or safety concerns in the sarizotan Phase III STARS trial during 1Q20E could remove at least CHF30/share
- Delayed initiation of Phase III schizophrenia studies with evenamide during 2020E could remove up to CHF4 per share
- Over a 12 month period, these setbacks could lower our NPV derived Price Target to around CHF6/share

Investment Thesis / Where We Differ

- €39.4m at 30 June 2019, along with the €7.5m second tranche from the EIB loan facility plus the c.€22.5m remaining, is adequate to fund cash burn beyond key value inflection points. Positive data and possible out-licensing deals for pipeline products evenamide and ralfinamide could crystallise incremental value.

Catalysts

- Phase III STARS Rett Syndrome data for sarizotan in 1Q20E enabling potential regulatory filings
- Initiation of evenamide Phase III studies as an add-on to antipsychotics and for clozapine treatment resistant schizophrenia during 1H20E
- Initiation of Xadago Phase III study for levodopa-induced dyskinesia in PD patients during 2020E

NORDIC NANOVECTOR ASA (NANO NO)

RATING BUY	PRICE NOK29.22[^]	MARKET CAP NOK1.9B / \$218.1M
PRICE TARGET (PT) NOK60.00	UPSIDE SCENARIO PT NOK80.00	DOWNSIDE SCENARIO PT NOK6.00

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

Estimates				
NOK	2018A	2019E	2020E	2021E
Rev. (MM)	0.0	0.0	0.0	0.0
<i>Previous</i>				
EBIT (MM)	(340.0)	(407.6)	(447.8)	(605.6)
<i>Previous</i>			(449.0)	(611.6)
Cash Position	440.1	507.8	84.0	49.5
<i>Previous</i>			82.9	49.9
EPS	(6.88)	(7.14)	(6.71)	(9.38)
<i>Previous</i>			(6.73)	(9.47)

Valuation				
	2018A	2019E	2020E	2021E
EV/Rev				
P/Rev				
EV/EBIT	NM	NM	NM	NM
FY P/E	NM	NM	NM	NM

The Long View

Scenarios

Base Case

- We believe novel antibody radionuclide conjugate (ARC) Betalutin for non-Hodgkin lymphoma orphan indications is the key value driver. NANO intends to market Betalutin itself to maximise value, however, we assume an ex-US partnership. NPVs suggest sales of Betalutin alone more than justify the current share price, with the early-stage pipeline potential upside.
- Price Target NOK60/share comprising NPVs for Betalutin plus Net Cash, less potential dilution to ensure sufficient funds until YE2022E.

Upside Scenario

- Positive Betalutin Phase IIb PARADIGME results in 3rd-line follicular lymphoma (FL) around YE20/early-2021E could add c.NOK22/share.
- Positive Betalutin Phase I dose-expansion results in diffuse large B-cell lymphoma (DLBCL) during 1H21E could add c.NOK15/share.
- Phase I data for Alpha37 (chimeric ARC) in chronic CLL during 2022E could add up to NOK10/share.
- Over a 12 month period, these potential catalysts, together with a number of smaller events, could boost our NPV derived Price Target to NOK80/share including potential dilution to ensure sufficient funds until YE2022E.

Downside Scenario

- Efficacy or safety concerns in the Betalutin Phase IIb PARADIGME study during 2020E could remove up to NOK55/share.
- Efficacy or safety concerns in the Betalutin Phase I trial in DLBCL during 2020-21E could remove up to NOK22/share.
- Over a 12 month period, these setbacks could lower our NPV derived Price Target to NOK6/share, including potential dilution to ensure sufficient funds until YE2022E.

Investment Thesis / Where We Differ

- We believe c.NOK346m cash reported at 30 September 2019, along with the c.NOK243m gross proceeds from the October capital raise, is adequate to fund cash burn to YE20E; by this time we expect an interim futility analysis of the Betalutin PARADIGME trial to have occurred, plus initial Phase I DLBCL data, and Phase Ib ARCHER data in 2nd-line FL.
- We do not include possible future out-licensing deals in our base case forecasts.

Catalysts

- Initial data from the Betalutin Phase I Lymrit 37-05 trial in relapsed DLBCL during 1H20E
- Interim futility analysis of the Phase IIb PARADIGME trial in 3rd-line FL around mid-2020E
- Phase IIb PARADIGME trial results in 3rd-line FL around YE20/early-2021E for regulatory filings 1H21E
- Data from the Phase II ARCHER-1 trial of Betalutin in combination with Rituxan for 2nd-line FL during 2H20E

ONCOPEPTIDES (ONCO SS)

RATING BUY	PRICE SEK126.00 [^]	MARKET CAP SEK7.0B / \$738.8M
PRICE TARGET (PT) SEK220.00 (FROM SEK225.00)	UPSIDE SCENARIO PT SEK365.00	DOWNSIDE SCENARIO PT SEK20.00

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

Estimates				
SEK	2018A	2019E	2020E	2021E
Rev. (MM)	0.0	0.0	262.9	1,185.6
<i>Previous</i>			265.9	1,198.7
EBIT (MM)	(411.0)	(686.9)	(457.9)	382.2
<i>Previous</i>		(684.7)	(461.1)	388.4
Cash Position	375.6	952.9	442.3	842.3
<i>Previous</i>		954.9	441.8	847.5
EPS	(9.58)	(13.38)	(8.23)	6.95
<i>Previous</i>		(13.33)	(8.29)	7.06

Valuation				
	2018A	2019E	2020E	2021E
P/Rev			26.6x	5.9x
EV/Rev			22.3x	4.9x
EV/EBIT	NM	NM	NM	15.3x
FY P/E	NM	NM	NM	18.1x

The Long View

Scenarios

Base Case

- Attractive risk:reward for sole clinical asset melflufen in Phase III for relapsed-refractory multiple myeloma (RRMM). We are optimistic melflufen could be granted accelerated approval as salvage therapy based on Phase II HORIZON data.
- Our base case is the Phase III OCEAN study in 3rd+ line MM is successful with melflufen just demonstrating statistically significant PFS vs. Pomalyst. We forecast \$625m WW peak sales at 80% and 70% probability of success in the US and ex-US, respectively.
- Price Target SEK220/share comprising NPVs for melflufen in the US and ex-US plus Net Cash.

Upside Scenario

- US and European regulatory approvals based on Phase II HORIZON data as salvage therapy could boost our NPVs by c.SEK25/share.
- Positive Phase III OCEAN results during 3Q20E could raise our NPVs by c.SEK30/share, with clearly superior efficacy versus Pomalyst potentially boosting price and peak penetration assumptions, worth an incremental c.SEK90/share.
- Positive catalysts over a 12-month period could boost our NPV derived PT to SEK365/share.

Downside Scenario

- Regulatory rejections of expedited filing necessitating filing after Phase III OCEAN data could remove around SEK30 per share.
- Efficacy and/or safety concerns in the Phase III OCEAN study during 3Q20E, including an equivocal outcome with non-inferior PFS versus Pomalyst, could reduce our NPVs by around SEK105/share.
- "Worst" case if the Phase III OCEAN trial fails, our NPVs could be cut by at least a further c.SEK95/share.
- Potential setbacks over a 12-month period could reduce our NPV derived PT to SEK20/share.

Investment Thesis / Where We Differ

- Our financial model suggests that cash of c.SEK1.12bn (c.\$118m) at 30 Septmeber 2019 is more than sufficient to reach key clinical read-outs and potential US accelerated approval as salvage therapy by YE20E.
- We assume management out-licenses melflufen during 2020E for ex-US commercialisation, which could help finance establishing a US S&M infrastructure for launch.
- The current share price discounts the possibility melflufen demonstrates clear superiority over Pomalyst in the OCEAN study, in our view, and undervalues the drug's potential commercial opportunity.

Catalysts

- Phase I/II trial evaluating melflufen in light-chain amyloidosis to begin early-2020E for data potentially around 4Q20E
- US melflufen filing 2Q20E with potential accelerated approval as salvage therapy by YE20E
- Phase III LIGHTHOUSE trial +Darzalex begins during 1Q20E for data around mid-2021E
- Phase III OCEAN results in 3rd+ line MM around 3Q20E

ORYZON GENOMICS S.A. (ORY SM)

RATING BUY	PRICE €2.96[^]	MARKET CAP €135.3M / \$150.8M
PRICE TARGET (PT) €4.80	UPSIDE SCENARIO PT €10.00	DOWNSIDE SCENARIO PT €0.90

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

Estimates				
€	2018A	2019E	2020E	2021E
EPS	(0.03)	(0.06)	(0.11)	(0.11)
<i>Previous</i>				
Rev. (MM)	0.0	0.0	0.0	0.0
<i>Previous</i>				
EBIT (MM)	(2.9)	(4.5)	(4.6)	(4.8)
<i>Previous</i>				
Cash Position	34.3	34.1	16.8	0.5
<i>Previous</i>				

Valuation				
	2018A	2019E	2020E	2021E
FY P/E	NM	NM	NM	NM
EV/EBIT	NM	NM	NM	NM

The Long View

Scenarios

Base Case

- Successful development of vafidemstat in Phase II development for aggression associated with borderline personality disorder (BPD) and agitation/aggression in Alzheimer's disease (AD) could generate blockbuster sales, with potential for significant upside should data show a signal of disease-modifying potential in AD
- Data to-date suggest iadademstat could provide meaningful benefit in hard-to-treat cancers such as acute myeloid leukaemia (AML) and small cell lung cancer (SCLC), with updated data over the next 12 months potentially triggering interest from possible partners
- Our €4.8/share Price Target comprises NPVs for vafidemstat and iadademstat, together with Net Cash, including potential dilution to ensure sufficient funds until YE2022E

Upside Scenario

- Positive vafidemstat Phase IIb PORTICO data in BPD aggression during 2021E enabling the start of a pivotal Phase III programme could add c.€0.6/share
- Positive vafidemstat Phase IIa ETHERAL data suggesting disease-modifying potential in Alzheimer's during 2Q20E could add up to €2/share
- Positive updated iadademstat Phase IIa ALICE AML and CLEPSIDRA SCLC data during 2020E enabling the start of pivotal Phase IIb programmes could add €2.0/share and €1.3/ share, respectively
- Over a 12 month period, these potential catalysts could boost our NPV derived PT to c.€10/share

Downside Scenario

- Efficacy or safety concerns in the vafidemstat Phase IIa ETHERAL studies in Alzheimer's during 2Q20E could remove at least €0.7/share
- Efficacy or safety concerns in the iadademstat Phase IIa ALICE AML and CLEPSIDRA SCLC studies during 2020E could remove around €2.0/share and €1.3/ share, respectively
- Over a 12 month period, these setbacks could reduce our NPV derived PT to around €0.9/share

Investment Thesis / Where We Differ

- Cash of c.€38.5m at end-September 2019 is sufficient to fund cash burn at least into 2H21E, excluding any potential licensing income. By this time, we would expect to have data from both vafidemstat and iadademstat key clinical programmes which could secure the partnership and/or funds required for continued development.

Catalysts

- Vafidemstat Phase IIa data from the AD cohort of the REIMAGINE basket study and efficacy data from European patients in the Phase IIa ETHERAL trial during early-2Q20E, likely at the ADPD meeting 2-5 April; ETHERAL data from US patients are expected during 3Q20E
- Updated iadademstat Phase IIa CLEPSIDRA SCLC and ALICE AML data during 2020E
- Start of the vafidemstat Phase IIb PORTICO trial in BPD patients during 1H20E, for data potentially during 2H21E

OXFORD BIOMEDICA PLC (OXB LN)

RATING HOLD	PRICE 675.00p[^]	MARKET CAP £519.1M / \$681.0M
PRICE TARGET (PT) 700.00p	UPSIDE SCENARIO PT 890.00p	DOWNSIDE SCENARIO PT 530.00p

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

Estimates				
£	2018A	2019E	2020E	2021E
Rev. (MM)	£66.8	£69.8	£89.3	£82.3
<i>Previous</i>		£70.0	£90.0	£84.1
EBIT (MM)	£7.9	£(13.6)	£(5.2)	£(21.6)
<i>Previous</i>		£(13.5)	£(4.1)	£(20.7)
Cash Position	£32.2	£12.8	£9.7	£7.9
<i>Previous</i>		£12.9	£10.8	
EPS	2.39	(24.89)	(6.71)	(28.77)
<i>Previous</i>		(24.69)	(5.23)	(27.65)

Valuation				
	2018A	2019E	2020E	2021E
P/Rev	7.8x	7.4x	5.8x	6.3x
EV/Rev	7.5x	7.2x	5.6x	6.1x
EV/EBIT	63.5x	NM	NM	NM

The Long View

Scenarios

Base Case

- OXB is establishing itself as an industry leader in lentiviral vectors to deliver genes, pursuing LentiVector partnerships and advancing its pipeline via externally funded SPVs or out-licensing deals, such as AXO-Lenti-PD for Parkinson's with Axovant in Phase I/II.
- The launch trend for Novartis' CAR-T therapy Kymriah and further partnering, particularly for the internal pipeline could be near-term catalysts.
- Our 700p per share Price Target is based on an NPV sum-of-the-parts valuation.

Upside Scenario

- Faster Kymriah sales leading to higher \$1.5bn peak sales forecast (from \$1bn base case) could add c.150p/share.
- Positive Phase I/II safety and efficacy data for AXO-Lenti-PD in Parkinson's disease during 1H20E could boost our NPV by c.130p/share.
- Partner Sanofi successfully re-licensing '422459 and '421869 with progression to pivotal trials during 2020E could add c.40p and c.15p per share, respectively.
- Potential catalysts over a 12-month period could boost our NPV-derived Price Target to around 890p/share.
- Incremental LentiVector licensing agreement and bioprocessing contracts could provide further upside.

Downside Scenario

- Slower Kymriah sales leading to lower \$750m peak sales forecast (from \$1bn base case) could remove c.75p/share.
- Safety and/or efficacy concerns for AXO-Lenti-PD in the Phase I/II trial for Parkinson's disease during 1H20E could lower our valuation by c.160p/share.
- Discontinuation of '422459 and '421869 during 2020E could remove c.15p combined.
- Potential risks over a 12-month period could reduce our NPV-derived Price Target to around 530p/share.

Investment Thesis / Where We Differ

- We note our sum-of-the-parts valuation excludes the not insignificant value of multiple facilities, including GMP-certified for manufacturing viruses, and the LentiVector platform technology, including in-house expertise and the broad patent estate.

Catalysts

- Potential incremental LentiVector license agreements and/or bioprocessing contracts
- Product deals for the proprietary pipeline
- Partner pipeline updates, including the second Novartis CAR-T entering the clinic
- Sanofi successfully re-licensing SAR422459 and SAR421869, with pivotal trials then starting
- AXO-Lenti-PD data from the second dosing cohort 1H20E

POXEL (POXEL FP)

RATING BUY	PRICE €12.56[^]	MARKET CAP €325.3M / \$362.4M
PRICE TARGET (PT) €16.00 (FROM €17.00)	UPSIDE SCENARIO PT €19.00	DOWNSIDE SCENARIO PT €9.00

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

Estimates				
€	2018A	2019E	2020E	2021E
Rev. (MM)	74.6	37.9	30.7	17.3
<i>Previous</i>			31.2	0.0
EBIT (MM)	12.5	(18.3)	(5.4)	(23.6)
<i>Previous</i>			(0.1)	(25.6)
Cash Position	66.7	24.9	19.2	5.5
<i>Previous</i>			22.8	4.9
EPS	0.54	(0.70)	(0.20)	(0.91)
<i>Previous</i>			0.00	(0.97)

Valuation				
	2018A	2019E	2020E	2021E
P/Rev	4.4x	8.6x	10.6x	18.8x
EV/Rev	3.7x	7.3x	9.0x	15.9x
EV/EBIT	22.0x	NM	NM	NM
FY P/E	23.3x	NM	NM	NM

The Long View

Scenarios

Base Case

- We believe the novel mechanism of action of lead product imeglimin could potentially provide it a unique position in the competitive type 2 diabetes treatment landscape.
- WW peak sales of over \$2bn at 60% probability ex-Asia and 90% probability in Asia underpin our valuation and could potentially prove conservative.
- Partnered in Japan/Asia with Sumitomo Dainippon Pharma and in US/EU/RoW with Metavant (Roivant Sciences) providing important endorsements of the product.
- Price Target €16 per share, comprising NPVs for imeglimin, placeholders for PXL770 and PXL065, plus Net Cash.

Upside Scenario

- Positive Phase IIa results for PXL770 during 2Q20E supporting continued development for NASH could add around €3/share to our valuation.
- Positive Phase IIb data for PXL065 during 2022E supporting continued development could add up to €6.5/share to our valuation.
- Over a 12 month period these potential catalysts could boost our NPV derived Price Target to c.€19/share.

Downside Scenario

- Prolonged delays on initiating the imeglimin Phase III programme in US/EU during 2020E could reduce our NPVs by at least €2/share.
- Delays to the filing of imeglimin in Japan during 1H20E could lower our valuation by at least c.€4.5/share.
- Efficacy and/or safety concerns in the PXL770 Phase IIa trial during 2Q20E and Phase IIb trial of PXL065 during 2022E, both in NASH, could remove around €0.5/share and €4/share, respectively.
- Over a 12 month period, these setbacks could reduce our NPV derived Price Target to c.€9/share.

Investment Thesis / Where We Differ

- We forecast around €37m Cash at 30 September 2019, along with the €30m IPF Partners loan facility, to be sufficient to fund operations into 4Q21E, including potential milestone income from existing partners.
- Management may now seek to in-license other early-stage assets for metabolic disorders to expand the pipeline and leverage management's clinical development expertise.

Catalysts

- Imeglamin filing in Japan during 1H20E
- PXL770 Phase I PK/PD data in NAFLD patients in 1Q20E and Phase IIa data in NASH-likely patients during 2Q20E
- Start of imeglimin Phase III programme in US/EU during 1H20E with partner Metavant (Roivant Sciences)
- PXL065 Phase IIb in NASH to initiate during 2Q20E.

PROTALIX BIOTHERAPEUTICS, INC. (PLX)

RATING BUY	PRICE \$4.61[^]	MARKET CAP \$68.2M
PRICE TARGET (PT) \$11.00 (FROM \$1.10)	UPSIDE SCENARIO PT \$25.00	DOWNSIDE SCENARIO PT \$0.50

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

Estimates				
USD	2018A	2019E	2020E	2021E
Rev. (MM)	34.2	47.2	27.3	168.3
<i>Previous</i>				
EBIT (MM)	(19.3)	(20.4)	(25.0)	126.0
<i>Previous</i>				
Cash Position	37.8	14.9	2.8	27.0
<i>Previous</i>				
EPS	■ (1.80)	■ (1.88)	■ (2.20)	■ 7.72
<i>Previous</i>	(0.18)	(0.19)	(0.22)	0.79

Valuation				
	2018A	2019E	2020E	2021E
P/Rev	2.0x	1.4x	2.5x	0.4x
EV/Rev	3.0x	2.2x	3.8x	0.6x
EV/EBIT	NM	NM	NM	0.8x
FY P/E	NM	NM	NM	0.6x

The Long View

Scenarios

Base Case

- Numerous pipeline programmes from the proprietary ProCellEx platform could crystallise value, with PRX-102 in Phase III for Fabry and partnered WW with Chiesi, plus potential partnerships for PRX-110 and OPRX-106.
- Uplyso Revenues under the agreement with Fiocruz in Brazil to reach c.\$12m per annum by 2021E.
- Our \$11 Price Target is based on NPVs for Elelyso/Uplyso, PRX-102, PRX-110, OPRX-106 and Net Debt, including potential dilution to ensure sufficient funds into 2022E.

Upside Scenario

- Positive PRX-102 Phase III results during 2020E could boost our NPV by up to c.\$6.5/share.
- A collaboration to advance development of OPRX-106 (oral anti-TNFα) into Phase IIb for inflammatory bowel disease could add c.\$4/share NPV.
- Uplyso sales increasing to the contractual \$30m per annum could add c.\$0.5/share NPV.
- A collaboration to advance development of PRX-110 (AIR DNase) into Phase IIb for cystic fibrosis could add c.\$3/share NPV.
- Over a 12 month period, these potential catalysts could boost our NPV derived Price Target to around \$25, including potential dilution for sufficient funds into 2022E.

Downside Scenario

- Safety and/or efficacy setbacks for PRX-102 in the Phase III trials during 2020E could remove c.\$13/share.
- Termination of the Uplyso alliance with Fiocruz in Brazil could remove at least \$2.5/share from our NPVs.
- Delayed further development, or efficacy and/or safety concerns for OPRX-106 could remove up to \$2/share.
- Delayed further development, or efficacy and/or safety concerns for PRX-110 could remove up to \$3/share.
- Over a 12 month period, these setbacks could reduce our NPV derived Price Target to \$0.5/share.

Investment Thesis / Where We Differ

- We believe c.\$21m Cash at 30 September 2019 should be sufficient to fund operations into 2Q20E, creating a funding shortfall ahead of potential PRX-102 launch and associated milestone income in 1Q21E. Our forecasts exclude potential income from future partnerships which could crystallise incremental value.

Catalysts

- PRX-102 Phase III BRIDGE results during 1Q20E, with US filing under accelerated approval pathway for Fabry disease by April 2020E
- PRX-102 Phase III BRIGHT data in 2H20E
- PRX-102 Phase III BALANCE interim 12-month data 4Q20E and final results 4Q21E
- Quarterly Uplyso Revenues from the collaboration with Fiocruz in Brazil
- Potential partnership deals for PRX-110 and/or OPRX-106

UCB (UCB BB)

RATING BUY	PRICE €73.34 [^]	MARKET CAP €14.3B / \$15.9B
PRICE TARGET (PT) €95.00 (FROM €70.00)	UPSIDE SCENARIO PT €110.00	DOWNSIDE SCENARIO PT €55.00

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

Estimates				
€	2018A	2019E	2020E	2021E
Rev. (MM)	4,632.0	4,736.9	5,222.6	5,593.4
<i>Previous</i>		4,710.4	5,073.5	5,358.0
EBIT (MM)	1,275.0	1,238.1	1,336.0	1,492.1
<i>Previous</i>		1,222.7	1,335.5	1,494.2
EPS-GAAP	4.24	4.09	4.38	5.03
<i>Previous</i>		4.03	4.46	5.21
EPS	4.78	4.69	5.16	5.81
<i>Previous</i>		4.63	5.24	5.99

Valuation				
	2018A	2019E	2020E	2021E
P/Rev	3.1x	3.0x	2.7x	2.6x
FY P/E GAAP	17.3x	17.9x	16.7x	14.6x
EV/Rev	3.2x	3.1x	2.8x	2.6x
EV/EBIT	11.5x	11.8x	11.0x	9.8x
FY P/E	15.3x	15.6x	14.2x	12.6x

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

The Long View

Scenarios

Base Case

- We believe pipeline launches, including potential blockbusters Evenity, bimekizumab and zilucoplan, should offset slow-to-declining sales of key products including Cimzia, Vimpat, Neupro and Briviact.
- We remain conservative on padsevonil in epilepsy and include no NPV contribution for anti-tau, anti-alpha synuclein and dapirolizumab entering Phase III despite equivocal Phase II.
- Shares are trading below EU Mid-Cap BioPharma peers on c.14x 2021E, despite robust growth and pipeline optionality. Our €95 per share Price Target, based on NPVs, implies c.16x PE.

Upside Scenario

- Minimal impact on Cimzia sales growth from future anti-TNFa biosimilars and orals could add around €3-4/share.
- Positive zilucoplan Phase III gMG data 1H21E allowing for filing and launches from 2022E could add €4/share.
- Bimekizumab approvals in psoriasis from 2021E could add c.€1/share.
- Other pipeline clinical data, notably for rozanolixizumab and padsevonil, could together add around €9/share.
- Catalysts over the next 12-months could boost our NPV sum-of-the-parts valuation to c.€110/share, implying around 19x 2021E P/E.

Downside Scenario

- A more rapid Cimzia decline could lower our NPV valuation up to €3/share.
- Efficacy or safety concerns for zilucoplan could remove up to €14/share.
- Efficacy or safety concerns for bimekizumab could remove up to €9/share.
- Pipeline setbacks, notably for rozanolixizumab and padsevonil, could together remove about €11/share.
- Potential setbacks over the next 12 months could reduce our NPV sum-of-the-parts valuation to c.€55/share, implying around 10x 2021E P/E.

Investment Thesis / Where We Differ

- We are increasingly confident that a wave of new, potentially blockbuster product launches over the next few years should more than offset slow-to-declining sales of key products and continued pipeline investment.
- We believe concerns around the near-term sustainability and growth trajectory of the business are misplaced, with our forecasts 3%-7% above consensus on revenues and 8%-14% above on EPS; our forecasts suggest +8% 2020-23E EPS CAGR.

Catalysts

- Padsevonil drug-resistant epilepsy Phase II data 1H20E and Phase III data 2H21E
- Bimekizumab detailed Phase III psoriasis data during 2020E, with filing mid-20E for approvals and launches from 2021E; Phase III PsA and AS data by YE21E
- Zilucoplan Phase II IMNM data 2H20E; Phase III gMG data 1H21E for launches from 2022E
- Rozanolixizumab Phase III gMG data and Phase II PoC CIDP data 1H21E

ZEALAND PHARMA A/S (ZEAL DC)

RATING HOLD	PRICE DKK219.80[^]	MARKET CAP DKK7.9B / \$1.2B
PRICE TARGET (PT) DKK225.00 (FROM DKK235.00)	UPSIDE SCENARIO PT DKK265.00	DOWNSIDE SCENARIO PT DKK95.00

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

ZEALAND PHARMA A/S (ZEAL)

RATING HOLD	PRICE \$32.83[^]	MARKET CAP DKK8.0B / \$1.2B
PRICE TARGET (PT) \$34.00 (FROM \$35.00)	UPSIDE SCENARIO PT \$40.00	DOWNSIDE SCENARIO PT \$14.00

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

Estimates				
DKK	2018A	2019E	2020E	2021E
Rev. (MM)	38.0	211.0	117.6	131.9
<i>Previous</i>		211.1		133.7
EBIT (MM)	(446.5)	(372.8)	(476.8)	(583.8)
<i>Previous</i>			(476.7)	(581.9)
Cash Position	1,159.2	1,566.3	1,039.6	527.7
<i>Previous</i>			1,039.7	529.6
EPS	(14.98)	(9.91)	(12.93)	(15.92)
<i>Previous</i>				(15.87)

Valuation				
	2018A	2019E	2020E	2021E
P/Rev	NM	37.6x	67.5x	60.2x
EV/Rev	NM	30.6x	54.9x	49.0x
EV/EBIT	NM	NM	NM	NM

The Long View

Scenarios

Base Case

- Late-stage proprietary pipeline programmes are the focus, with glucagon agonist dasiglucagon due to be filed as a rescue pen for diabetes hypos and in Phase III as a pump for CHI, plus glepaglutide in Phase III for short bowel syndrome. Longer term, we also expect pipeline out-licensing deals to crystallise value.
- However, we find insufficient upside at the current share price, which along with a lack of significant near-term stock-moving catalysts, dictates our Hold.
- Price Target DKK225/share (\$34/ADS) based on an NPV sum-of-the-parts valuation.

Upside Scenario

- Positive dasiglucagon Phase III results in CHI during 2020E could add at least c.DKK7/share
- Regulatory approvals of the HypoPal (dasiglucagon) rescue pen during 1H21E could add up to DKK8/share
- Positive Phase III results for glepaglutide in SBS with a differentiated profile during 1H21E could add around DKK20/share
- Successful Phase III safety and efficacy data for dasiglucagon in an artificial pancreas device during 1H22E could add at least DKK25/share
- Over a 12 month period, these catalysts, along with a number of smaller events, could boost our Price Target to c.DKK265/share (\$40/ADS).

Downside Scenario

- Phase III failure of dasiglucagon in CHI during 2020E could remove up to DKK12/share
- Regulatory delays or concerns for HypoPal (dasiglucagon) as a rescue pen during 2020E could remove at least DKK75/share from our valuation
- Failure of glepaglutide in Phase III for SBS or an undifferentiated profile versus incumbent Gattex during 1H21E could remove up to DKK45/share from our valuation
- Dasiglucagon failure in the Phase IIb in an artificial pancreas device during 1H22E could remove c.DKK40/share
- Over a 12 month period, these catalysts, along with a number of smaller events, could lower our Price Target to c.DKK95/share (\$14/ADS).

Investment Thesis / Where We Differ

Around DKK1.5bn (\$225m) Net Cash at 30 September 2019 is sufficient to fund operations beyond numerous late-stage clinical catalysts which should provide potential opportunities to crystallise value.

Catalysts

- Start of Phase II for BI456906 in obesity/diabetes around early-2020E, triggering milestone payment to Zealand, for data during 1H21E
- Regulatory filings of dasiglucagon as the HypoPal rescue pen during early-2020E for potential approval during 1H21E
- Dasiglucagon treating ultra-rare disease congenital hyperinsulinism Phase III data during 1H20E for potential filings during 1H21E.
- Phase III of dasiglucagon in a dual-hormone artificial pancreas begins around YE20E for results during 1H22E.
- Early-stage pipeline results and/or out-licensing deals.

Company Description

AC Immune

AC Immune is a clinical stage biopharmaceutical company founded in 2003. Leveraging its two proprietary platforms, SupraAntigen and Morphomer, it seeks to discover and develop novel medicines for the prevention, diagnosis and treatment of neurodegenerative diseases associated with protein misfolding. Its pipeline includes four products in clinical development, in addition to earlier stage therapies and numerous diagnostic candidates. A number of partnerships with pharma companies provide an endorsement of its technology, in our view. AC Immune is based in Lausanne, Switzerland and listed on the US NASDAQ in September 2016.

ALK-Abello A/S

ALK-Abello is a Danish allergy company focusing on treatments that target the cause of allergy. ALK has a number of marketed products including both subcutaneous and sub-lingual immunotherapy vaccines. In 2006, ALK launched the first tablet-based allergy vaccine against grass pollen in Europe and also has SLIT-tablets to treat ragweed, house dust mite, and tree pollen allergies. ALK has partnered with Torii in Japan and other companies in selected Asian markets.

Almirall

Almirall is an international pharmaceutical company headquartered in Barcelona, Spain. Founded in 1943 Almirall markets products derived from its internal R&D (including Ebastine, Almotriptan and Aceclofenac) and products licensed from third-parties through its sales affiliates in Spain and across Europe and the Americas. The company focuses on medicines for the treatment of autoimmune and dermatological diseases.

Compugen

Compugen is a product discovery and development company focused on therapeutic proteins and monoclonal antibodies to address unmet needs in the fields of immunology and oncology. Compugen utilises a broad and expanding infrastructure of proprietary scientific understandings and predictive platforms, algorithms, machine learning systems, and other computational biology capabilities for the prediction and selection of product candidates. The company's business model primarily involves collaborations covering the further development and commercialisation of product candidates from its pipeline and various forms of research and discovery agreements, providing Compugen with potential milestone payments and royalties on product sales or other forms of revenue sharing.

Cosmo

Cosmo is a biotechnology company whose novel drug delivery system allows for targeted, sustained drug release in the lower colon. The company focuses on gastro-intestinal disorders such as ulcerative colitis (UC), in addition to travellers' diarrhoea and chromoendoscopy for the earlier diagnosis of colorectal cancer.

Erytech

Erytech is a French biotech company founded in 2004 with a proprietary ERYCAPS technology that is based on encapsulating therapeutics within red blood cells (erythrocytes). The company focuses on developing cancer therapies, initially developing products that act on the tumour environment, effectively "starving" the cancer cells of essential growth factors required for their survival and proliferation. Erytech's headquarters and commercial scale GMP manufacturing facility are in Lyon, France. Its lead product eryaspase could treat solid tumours, whilst the ERYCAPS technology may also be applicable to the delivery of cancer immunotherapies and enzyme replacement therapies (ERT).

Galapagos

Galapagos is a Belgian biotech company focusing on drug discovery using cells taken from patients with diseases of interest; typically musculoskeletal, CNS and inflammatory disorders plus orphan indications. The company's most advanced product is filgotinib (GLPG0634 a JAK1 inhibitor) is in Phase III for rheumatoid arthritis, Crohn's disease and ulcerative colitis partnered with Gilead. The company has a broad R&D collaboration with Gilead and also has active collaborations with Servier and MorphoSys.

Genmab

Genmab is a Danish antibody company. Genmab's lead product is Darzalex (daratumumab), partnered with Janssen, currently approved for relapsed-refractory multiple myeloma (MM) and in clinical trials for additional lines of MM therapy and other cancer indications. Arzerra (ofatumumab) is approved for CLL, partnered with Novartis worldwide, and has successfully completed Phase

III in relapsing-remitting multiple sclerosis. Genmab has a broad pipeline, notably tisotumab vedotin (Tissue Factor antibody-drug conjugate) and GEN3013 (DuoBody-CD3xCD20), plus a broad DuoBody collaboration with Janssen.

Idorsia

Idorsia was formed as a spin-out of Actelion's drug discovery capabilities, early-stage assets, and clinical pipeline as part of its acquisition by Johnson & Johnson in June 2017. The company specialises in the discovery, development and commercialisation of small molecule therapeutics to meet significant unmet medical needs, with a focus on central nervous system disorders, cardiovascular disorders, immunological disorders and orphan diseases. Idorsia's headquarters are in Allschwil, Switzerland.

Ipsen

Ipsen is a global biopharmaceutical company focusing on niche oncology indications, rare diseases, and neurosciences. Key marketed products include Decapeptyl (prostate cancer), Somatuline (acromegaly and NETs), Dysport (botulinum toxin A for cosmetic and therapeutic indications), and Cabometyx (renal cell and hepatocellular carcinoma). The company is majority owned by the Mayroy Foundation.

Inventiva

Inventiva is a French clinical stage biopharmaceutical company founded in 2011 by former senior executives of the French subsidiary of Abbott, and began operations in 2012. The company specialises in developing drugs that target nuclear receptors, transcription factors and epigenetic modulation, with a particular focus on fibrosis, orphan diseases and oncology. Inventiva's headquarters are in Dijon, France.

Lonza Group AG

Lonza is a European life sciences company that manufactures and produces the active pharmaceutical ingredients for both biologic and small molecule drugs for the pharmaceutical industry. Lonza is also a leading supplier of chemical and biotech ingredients to the nutrition, hygiene, preservation, agro and personal care markets.

Lundbeck

Lundbeck is a mid-cap pharmaceutical company focusing on CNS diseases including depression, schizophrenia, Alzheimer's disease, Parkinson's disease and stroke. Historically the company commercialised drugs outside of the US market itself, utilising partners for marketing in North America, but this changed when the 2009 acquisition of Ovation provided Lundbeck with a US platform. Key products include Otsuka-partnered Rexulti, Takeda-partnered Trintellix/Brintellix, Otsuka-partnered Abilify Maintena and eptinezumab.

Nanobiotix

Nanobiotix is a French clinical stage biopharmaceutical company founded in 2003 as a spin-out from the State University of New York. The company is focused on utilising its proprietary NanoXray technology to develop first-in-class "radioenhancers", which aim to widen the therapeutic window of radiotherapy treatment to improve efficacy without compromising safety. Its lead product NBTXR3 consists of hafnium oxide nanoparticles. Nanobiotix's headquarters are in Paris, France and it also has an affiliate office in Cambridge, MA, USA.

Nordic Nanovector

Nordic Nanovector is a Norwegian clinical stage biopharmaceutical company founded in 2009. The company focuses on the development of antibody radionuclide conjugates for the treatment of haematological malignancies, leveraging expertise in targeted cancer therapy developed at the Norwegian Radium Hospital. Nordic Nanovector's headquarters and laboratories are in Oslo, Norway.

Newron

Newron Pharmaceuticals is an Italian biotechnology company founded in 1999. The company focuses on the development of novel therapies for the treatment of Central Nervous System diseases and rare pain indications. Xadago, for the treatment of Parkinson's disease, is approved and marketed worldwide. Its pipeline is focused on rare disease indications, with lead product sarizotan in Phase III to treat Rett Syndrome. Newron's headquarters is in Bresso, Italy.

Oncopeptides

Oncopeptides was founded in 2000 by researchers from Uppsala University, Akademiska sjukhuset in Sweden and the Karolinska Institutet in Stockholm, Sweden. The company commenced operations in 2001. Ygalo (melflufen) has always been the main product candidate, initially designated as J1. Melflufen is a novel prodrug of the nitrogen mustard alkylating agent melphalan that has been widely used to treat multiple myeloma.

Oryzon

Oryzon is a Spanish clinical stage biopharmaceutical company founded in 2000. The company specialises in the field of epigenetics, with a particular focus on developing innovative therapies for oncology and neurodegenerative diseases. Oryzon's headquarters are in Barcelona, Spain.

Oxford BioMedica

Oxford BioMedica was founded in 1995 as a spin-out from The University of Oxford. OXB is a leader in the use of lentiviral vectors for gene and cell therapy. Its proprietary lentiviral vector gene delivery platform, LentiVector, forms the basis of its internal pipeline as well as collaborations with companies such as Novartis and Sanofi. Through OXB Solutions, OXB leverages its expertise, extensive IP and GMP manufacturing facilities to partner with companies pursuing lentivector-based products. OXB's headquarters and commercial scale GMP manufacturing sites are in Oxfordshire, UK.

Protalix BioTherapeutics, Inc.

Founded in 1993, Protalix BioTherapeutics is an emerging biotechnology company with a focus on developing and commercialising plant-based biologics for the treatment of severe orphan disorders. Protalix's Elelyso (taliglucerase alfa, human recombinant beta-glucocerebrosidase enzyme), was FDA approved for the treatment of patients with Gaucher disease in May 2012, approved in Israel in September 2012, and in Brazil in March 2013. Pfizer has WW commercialisation rights to Elelyso except in Brazil, where Protalix supplies the product as Uplyso under a contract with Fiocruz. Lead pipeline candidate PRX-102 is in Phase III for Fabry disease, partnered WW with Chiesi.

Poxel

Poxel was founded in 2009 as a spin-out of the diabetes pipeline from Merck Serono. The company specialises in developing first-in-class disease-modifying therapies for metabolic diseases, currently focusing on type 2 diabetes (T2D). Poxel seeks leverage its scientific and development experience, along with strategic partnerships for commercialization, in order to maximize potential value. Poxel is based in Lyon, France.

Cassiopea

Cassiopea is a Swiss listed specialty pharmaceutical company focusing on dermatology. It is a demerged business initially funded by parent Cosmo Pharmaceuticals, which has retained a c.45% stake. The company has a pipeline consisting of four clinical assets, Winlevi and CB-06-01 for acne, Breezula for androgenic alopecia, and CB-06-02 for anogenital warts. Cassiopea intends to hire a US salesforce and commercial organisation to launch its dermatology portfolio, subject to obtaining FDA regulatory approval for its lead product Winlevi, while out-licensing rights to other geographies.

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. Legacy products include Vimpat (epilepsy), Cimzia (rheumatoid arthritis, Crohn's disease and other autoimmune disorders), and Neupro (Parkinson's disease), with an upcoming wave of potential blockbuster product launches including Evenity (post-menopausal osteoporosis), bimekizumab (psoriasis, psoriatic arthritis and ankylosing spondylitis) and zilucoplan (generalised myasthenia gravis).

Zealand Pharma A/S

Zealand Pharma is a Danish biotechnology company focusing on the development of novel peptide drugs particularly to treat rare diseases, plus metabolic, gastrointestinal and cardiovascular disorders. Zealand's proprietary pipeline includes dasiglucagon due to be filed as a rescue pen for diabetes hypos and in Phase III as a pump for CHI, and glepaglutide for short bowel syndrome (SBS) in Phase III. The company also has active collaborations with Boehringer Ingelheim.

Company Valuation/Risks

AC Immune

Our Price Target is based on a sum-of-the-parts valuation comprising probability-adjusted NPVs for ACI-24, ACI-35, RG6100, PI-2620 and ACI-3024, together with Net Cash. Key risks include: (1) clinical or regulatory setbacks; (2) wider sentiment towards AD therapies; and (3) reliance on partners to maximise value.

ALK-Abello A/S

Our Price Target is based on an NPV sum-of-the-parts valuation. Key risks include: (1) clinical or regulatory setbacks; (2) more sluggish adoption of SLIT-tablets in the US; (3) competitor newsflow; and (4) pressures on the EU base business.

Almirall

Our Price Target is based on an NPV sum-of-the-parts valuation comprising the dermatology franchise, AZN respiratory collaboration and mature products, applying a hiked 10% WACC. Risks include: (1) faster erosion of mature sales; (2) commercialisation risks and competitive threats, notably in dermatology; and (3) clinical trial failures or delays.

Compugen

Our Price Target is based on a sum-of-the-parts comprising option-like NPVs for each of the prospective therapeutics, plus income from the Bayer collaboration and Net Cash, less potential dilution to ensure sufficient near-term funds. Risks include: (1) challenging valuation methodology given the paucity of clinical data; (2) future clinical trial failures for the identified targets or perhaps from the wider immuno-oncology field; and (3) need to execute future out-licensing deals to crystallise value.

Cosmo

Our Price Target is based on a sum-of-the-parts valuation comprising probability-adjusted NPVs for marketed and late-stage products plus Net Cash. Risks include: (1) clinical trial failures or delays; (2) regulatory setbacks; (3) the need to execute ex-US distribution deals to maximise value; and (4) differentiating reformulated products.

Erytech

Our Price Target is based on a sum-of-the-parts valuation comprising probability-adjusted NPVs for eryaspase, together with Net Cash, less potential dilution to ensure sufficient near-term funds. Key risks include: (1) clinical, regulatory or manufacturing setbacks for eryaspase; (2) successful commercial execution in the US; and (3) securing adequate funds/partners to maximise value.

Galapagos

Our Price Target is based on a sum-of-the-parts valuation largely comprising probability-adjusted NPVs for filgotinib, GLPG1690 in IPF, and GLPG1972 in osteoarthritis, plus Net Cash. Risks include: (1) efficacy, safety, or regulatory setbacks; (2) need to execute future out-licensing and alliances; and (3) clinical trial failures.

Genmab

Our Price Target is based on a sum-of-the-parts valuation largely comprising probability-adjusted NPVs for Darzalex, plus contributions from ofatumumab, tisotumab vedotin, and the Janssen DuoBody collaboration, together with Net Cash. Risks include: (1) clinical trial failures; (2) successful commercialisation of Darzalex; (3) failure to execute future out-licensing deals.

Idorsia

Our Price Target is based on a sum-of-the-parts valuation comprising probability-adjusted NPVs for Phase II-III assets and ponesimod royalties, together with Net Cash. Key risks include: (1) clinical or regulatory setbacks; (2) breadth of R&D has relatively high cash burn; and (3) may need to secure partners for some key pipeline assets.

Ipsen

Our Price Target is based on a 2021E P/E multiple, assuming a discount to peers. Risks include: (1) Availability of generic Sandostatin LAR and Somatuline, for which visibility is low, threatening Somatuline market share; (2) Pipeline delays or setbacks; (3) Executing business development deals and/or acquisitions; and (4) Emerging market volatility.

Inventiva

Our Price Target is based on a sum-of-the-parts valuation comprising probability-adjusted NPVs for lanifibranor and odiparil, together with Net Cash, less potential dilution to ensure sufficient near-term funds. Key risks include: (1) Clinical or regulatory setbacks; (2) the need to execute a partnership deal for lanifibranor; and, (3) securing funds to maximise value.

Lonza Group AG

Our Price Target is based on a DCF valuation and sum-of-the-parts applying 2021E EV/EBITDA multiples. Risks include: (1) failing to secure future drug manufacturing contracts; (2) deficiencies in regulatory site inspections; (3) weak demand or margin pressures; (4) failing to achieve efficiency/productivity gains.

Lundbeck

Our Price Target is based on an NPV sum-of-the-parts valuation. Risks include: (1) pipeline failures or regulatory setbacks; (2) poor commercial execution and emerging competitive threats; and (3) reimbursement and/or payer pressures.

Nanobiotix

Our Price Target is based on a sum-of-the-parts valuation comprising probability-adjusted NPVs for Hensify (NBTXR3), together with Net Cash, less potential dilution to ensure sufficient near-term funds. Key risks include: (1) clinical or regulatory setbacks; (2) successful commercial execution; and (3) securing adequate funds to maximise value.

Nordic Nanovector

Our Price Target is based on a sum-of-the-parts valuation comprising probability-adjusted NPVs for Betalutin, together with Net Cash, less potential dilution to ensure sufficient near-term funds. Key risks include: (1) clinical or regulatory setbacks for Betalutin; (2) successful commercial execution; and (3) competitive threats from other therapies in development.

Newron

Our Price Target is based on a sum-of-the-parts valuation comprising probability-adjusted NPVs for Xadago, sarizotan, and evenamide, together with Net Cash. Key risks include: (1) clinical or regulatory setbacks for sarizotan; (2) sluggish Xadago adoption; and (3) Newron may need to secure partners for key pipeline assets.

Oncopeptides

Our Price Target is based on a sum-of-the-parts valuation comprising probability-adjusted NPVs for melflufen sales in the US, commercialised by Oncopeptides itself, and ex-US income from possible partner(s), in addition to Net Cash. Key risks include: (1) clinical or regulatory setbacks for melflufen; (2) successful commercial execution in multiple myeloma; and (3) securing adequate funds/partners to maximise value.

Oryzon

Our Price Target is based on a sum-of-the-parts valuation comprising NPVs for vafidemstat and iadademstat, together with Net Cash. Key risks include: (1) Clinical or regulatory setbacks; (2) the need to execute a partnership deal for vafidemstat and iadademstat; and, (3) securing funds to maximise value.

Oxford BioMedica

Our Price Target is based on a sum-of-the-parts valuation comprising probability-adjusted NPVs for Novartis' Kymriah and other CAR-Ts, bioprocessing contracts, plus AXO-Lenti-PD, and the preclinical programmes targetting inherited retinal disorders, together with Net Cash. Key risks include: (1) clinical, regulatory or manufacturing setbacks; (2) the need to execute future platform/product deals; and (3) optimally using the growing capacity base with high fixed costs to maximise value.

Protalix BioTherapeutics, Inc.

Our Price Target is based on an NPV sum-of-the-parts valuation largely comprising PRX-102, plus Uplyso in Brazil, PRX-110 and OPRX-106, together with Net Debt. Risks include: (1) uncertain Uplyso Revenues in Brazil; (2) possible biosimilar ERTs and/or competing oral drugs; and (3) clinical trial setbacks or delays.

Poxel

Our Price Target is based on a sum-of-the-parts valuation comprising probability-adjusted NPVs for imeglimin, placeholders for PXL770 and PXL065, together with Net Cash. Key risks include: (1) clinical, regulatory or manufacturing setbacks for imeglimin; (2) reliance on partner Roivant in US/EU to initiate Phase III; and (3) securing adequate funds to maximise value.

Cassiopea

Our Price Target is based on a sum-of-the-parts valuation comprising probability-adjusted NPVs for Winlevi, Breezula, CB-06-01 and CB-06-02, plus Net Cash less potential dilution to ensure sufficient near-term funds. Risks include: (1) clinical trial and regulatory setbacks; (2) successfully executing a US S&M strategy; and (3) partnering products outside the US.

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 zilucoplan, bimekizumab and rozanolixizumab.

Zealand Pharma A/S

Our Price Target is based on an NPV sum-of-the-parts valuation. Risks include: (1) Zealand failing to successfully commercialise dasiglucagon as the HypoPal resuce pen; (2) pipeline clinical trial failures or delays; and (3) the need to execute future out-licensing deals.

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Investment Recommendation Record

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

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Company Specific Disclosures

Jefferies Group LLC makes a market in the securities or ADRs of AC Immune.
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The expected total return (price appreciation plus yield) for Buy rated securities with an average security price consistently below \$10 is 20% or more within a 12-month period as these companies are typically more volatile than the overall stock market. For Hold

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- AC Immune (ACIU: \$8.99, BUY)
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- Almirall (ALM SM: €14.74, BUY)
- Cassiopea (SKIN SW: CHF40.00, BUY)
- Compugen Ltd. (CGEN: \$6.09, BUY)
- Cosmo (COPN SW: CHF74.50, BUY)
- Erytech Pharma (ERYP FP: €5.95, BUY)
- Erytech Pharma (ERYP: \$6.73, BUY)
- Galapagos (GLPG NA: €183.40, HOLD)
- Galapagos (GLPG: \$206.26, HOLD)
- Genmab A/S (GMAB DC: DKK1,419.50, BUY)
- Genmab A/S (GMAB: \$21.39, BUY)
- Idorsia (IDIA SW: CHF28.96, HOLD)
- Inventiva S.A. (IVA FP: €3.96, BUY)
- Ipsen (IPN FP: €78.65, HOLD)
- Lonza Group AG (LONN SW: CHF351.20, BUY)
- Lundbeck (LUN DC: DKK250.00, HOLD)

- Nanobiotix SA (NANO FP: €8.39, BUY)
- Newron Pharmaceuticals S.p.A. (NWRN SW: CHF6.10, BUY)
- Nordic Nanovector ASA (NANO NO: NOK29.22, BUY)
- Oncopeptides (ONCO SS: SEK126.00, BUY)
- Oryzon Genomics S.A. (ORY SM: €2.96, BUY)
- Oxford BioMedica plc (OXB LN: p675.00, HOLD)
- Poxel (POXEL FP: €12.56, BUY)
- Protalix BioTherapeutics, Inc. (PLX: \$4.61, BUY)
- Swedish Orphan Biovitrum AB (SOBI SS: SEK153.15, BUY)
- UCB (UCB BB: €73.34, BUY)
- Zealand Pharma A/S (ZEAL DC: DKK219.80, HOLD)
- Zealand Pharma A/S (ZEAL: \$32.83, HOLD)

Distribution of Ratings

Distribution of Ratings						
			IB Serv./Past12 Mos.		JIL Mkt Serv./Past12 Mos.	
	Count	Percent	Count	Percent	Count	Percent
BUY	1207	52.78%	103	8.53%	14	1.16%
HOLD	926	40.49%	31	3.35%	4	0.43%
UNDERPERFORM	154	6.73%	1	0.65%	0	0.00%

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