

# Mologen

## 'Next Level' on track

Mologen's interim results have confirmed the implementation of its 'Next Level' strategic review. This is focused on the development and commercialisation of lead candidate lefitolimod (oncology and HIV) across its four clinical trial programmes and the next-generation molecules EnanDIM (TLR9 agonist), effectively evolving Mologen into a more product-focused company. Partnering opportunities for lefitolimod are being actively sought. We anticipate Phase II IMPULSE (SCLC) data in early/mid-2017 and initial Phase III IMPALA (mCRC) data 24 months after final patient recruitment to drive the shares. We value Mologen at €201m (€8.87/share).

Year end	Revenue (€m)	PBT* (€m)	EPS* (c)	DPS (c)	P/E (x)	Yield (%)
12/14	0.0	(17.0)	(1.01)	0.0	N/A	N/A
12/15	0.0	(20.5)	(0.99)	0.0	N/A	N/A
12/16e	0.0	(24.9)	(1.10)	0.0	N/A	N/A
12/17e	0.0	(25.8)	(1.14)	0.0	N/A	N/A

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

### 'Next Level' evolution

To ensure evolution from a research-based to a product-oriented company, Mologen is focusing near-term efforts on developing lefitolimod (TLR9 agonist) for potential commercialisation; manufacturing efforts will be out-sourced to achieve suitable scale. Mologen's move to a more clinical development-focused company means preclinical R&D assets (MIDGE vector system) will be spun off or divested while MGN1601 (renal cancer vaccine) is on hold.

# IMPULSE and IMPALA critical share price drivers

Focus in the near term will naturally centre on lefitolimod and its four ongoing clinical trial programmes; notably Phase III (IMPALA) and Phase II (IMPULSE) maintenance trials for mCRC and SCLC respectively. We anticipate IMPULSE (SCLC) data in early/mid-2017 and IMPALA (mCRC) initial data approximately 24 months after final patient recruitment to be the next major share price drivers. Additionally, during the past six months Mologen has extended the TEACH 'study (HIV) following positive initial results and has announced a collaboration with the MD Anderson Cancer center on recruitment of the first patient in the Phase I combination study with the immunotherapy ipilimumab (Yervoy) for advanced solid malignancies.

# Valuation: €201m or €8.87 per share

Our valuation of Mologen remains at €201m or €8.87/share. We assume lefitolimod will be out-licensed in oncology in 2018 and have valued royalties accordingly; however, we do not model in any potential upfront or milestone payments. Our model suggests a cash runway into early 2017; we forecast additional illustrative financing of €30m in 2016. Following the AGM, Mologen has announced its intention to carry out a cash capital increase from authorised capital to extend the cash runway further; this is critical to fund lefitolimod's development out to 2018.

### Post-interim results update

Pharma & biotech

#### 1 September 2016

€1.73

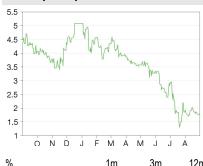
1 1100	01.70
Market cap	€38m
Net cash (€m) at 30 June 2016	15.3
Shares in issue	22.6m
Free float	55%
Code	MGN
Primary exchange	Frankfurt (Prime

Standard)

Secondary exchange N/A

#### Share price performance

Price



	C	IV	D	J		IVI	^	IVI	J	J	^	
%						1m			3m		1	2m
Abs					(	6.7)		(4	8.4)		(61	.6)
Rel (local)			(9.0)			(50.0)			(62	(8.2		
52-we	ek h	nigh/	low					€5	.1		€	1.3

#### **Business description**

Mologen is a German biotech company developing novel immunotherapies. Lead product lefitolimod (TLR9 agonist) is being evaluated in metastatic colorectal cancer maintenance, small cell lung cancer maintenance, HIV and a combination trial in advanced solid malignancies.

#### Next events

IMPALA recruitment completed	End 2016/Q117
IMPULSE: Start analysis	Q416
IMPULSE data	H117
IMPALA initial data	24 months after fina

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# Lefitolimod commercialisation is key

Next Level' aims to prepare Mologen's lead product candidate lefitolimod for a potential market approval. IMPALA (Phase III mCRC) and IMPULSE (Phase II SCLC) trials continue as planned, with completion of patient recruitment for IMPALA expected by end 2016/Q117 (results expected approximately 24 months after last patient enrolment) and the results of IMPULSE in H117. We assume the launch of lefitolimod in its first indication (the maintenance treatment of metastatic colorectal cancer) will be in 2020 for Europe and 2021 for the US; we model that out-licensing in oncology indications will be achieved in 2018. Outsourcing of manufacturing will enable Mologen to effectively ramp up its production capacity and potentially multi-source its supply line through contract manufacturing, further increasing the licensing appeal of lefitolimod if IMPALA and/or IMPULSE are positive. Earlier-stage trials include a Phase I TEACH study in HIV, which has started its expansion study (final results due in H117), while a Phase I combination trial with ipilimumab (Yervoy) in advanced malignancies has started enrolment (potential data readout by 2019) could increase the licensing appeal of lefitolimod in oncology if results are positive.

## **Outsourcing key to strategy**

Mologen has recognised that it does not have the sufficient capabilities in house to ramp up the manufacturing of lefitolimod for a potential market launch. It will close in-house clinical supply manufacturing and look for a contract manufacturer with the capacity and expertise needed to deliver lefitolimod in market quantities. This enables a solid production line to be put in place, while controlling costs that would be incurred if Mologen invested in the expertise and facilities needed to internally scale production. Furthermore, multiple manufacturers could be used to enable protection of lefitolimod supply. Additionally, early-stage, in-house R&D will be outsourced as Mologen directs its attention to clinical assets. All outsourcing activities will be led by Mologen staff, ensuring expertise and knowledge is retained in house.

## **Building commercialisation expertise**

Mologen has indicated that it is proactively searching for licensing partners and has brought in a consultancy firm specialising in biotechnology. The team is expected to aid the Executive Board in evaluating and assessing strategic options that have arisen from the 'Next Level' strategy. A key objective will be refining the business case around lefitolimod and how it is targeting and searching for licensing partners. As commercialisation opportunities near, we assume internal expertise will be brought on board to support this process. While headcount is initially being reduced (in R&D and manufacturing), we expect numbers to remain steady in the mid-term as commercial expertise is brought on board. The successful commercialisation of lefitolimod is key for Mologen's current strategy and the timing and terms will have a substantial impact on the company's future, with the results of both IMPALA and IMPULSE key to any future deal.

More detail on lefitolimod and the 'Next Level' strategy can be found in our July 2016 update; 'Next Level of development'.

## **Valuation**

Our valuation of Mologen remains unchanged at €201m or €8.87/share. We assume lefitolimod will be out-licensed in oncology in 2018 and have valued royalties accordingly; however, we do not model in any potential upfront or milestone payments. Our model suggests a cash runway into early 2017; we forecast additional illustrative financing of €30m in 2016. Following the AGM Mologen has announced its intention to carry out a cash capital increase from authorized capital to extend the cash runway further; this is critical to fund lefitolimod's development out to 2018.



Full details of our valuation methodology and assumptions can be found in our <u>July 2016 note</u>.

## **Financials**

Cash at 30 June 2016 was €15.3m, which includes the capital raise in April 2015 when €28.3m gross (€26.2m net) was raised from the rights issue (one-for-three) of c 5.7m new shares at €5.00 per share. Our model suggests that current cash is sufficient to fund operations to early 2017, depending on the progress of the IMPULSE and IMPALA studies for MGN1703. Importantly, this provides a cash runway that accommodates some important milestones in the next six months, particularly the primary analysis of the IMPULSE study data in SCLC (expected H216 – data expected H117) and completion of patient recruitment in the IMPALA trial at end 2016/Q117. However, a funding gap remains in respect of the IMPALA study (primary endpoint estimated by end-2018). We estimate this to be in the €25-35m range and include an illustrative €30m financing, nominally attributed to debt, in our FY16 forecasts to allow for completion of the study. Mologen has announced that funding will be covered by existing authorised capital, together with existing authorisation to use conditional capital.

In terms of operating costs for H116, R&D expenses increased to €7.1m vs €5.2m in H115 translating to an in increase in operating losses (EBIT) of €9.8m vs €6.9m in H115. The increased R&D costs are expected to continue in FY16, mainly in support of the IMPALA and IMPULSE trials, with this expected to drive a higher net loss than in 2015. We forecast FY16 R&D (cost of materials) costs of €15.4m and SG&A (personnel expenses) of €5.2m. Our forecast net loss for FY16 remains unchanged at €24.9m.



	€'000s	2013	2014	2015	2016e	2017
Year end 31 December		IFRS	IFRS	IFRS	IFRS	IFR
PROFIT & LOSS						
Revenue		227	12	39	40	5
Cost of Sales		0	0	0	0	
Gross Profit		227	12	39	40	5
Research and development (cost of materials)		(2,904)	(8,687)	(11,011)	(15,415)	(16,186
Selling, general & administrative (personnel expenses)		(4,364)	(5,113)	(5,074)	(5,175)	(5,22
Other operating income/expense		(2,803)	(3,199)	(4,372)	(4,368)	(4,368
EBITDA		(9,844)	(16,987)	(20,418)	(24,919)	(25,73
Operating Profit (before GW and except.)		(9,923)	(17,059)	(20,499)	(24,943)	(25,76)
Intangible Amortisation		(935)	(38)	(40)	(88)	(53
Exceptionals/Other		Ó	Ó	Ó	Ó	,
Operating Profit		(10,858)	(17,097)	(20,539)	(25,030)	(25,81
Net Interest		30	19	3	25	( - / -
Other		0	0	0	0	
Profit Before Tax (norm)		(9,893)	(17,040)	(20,496)	(24,918)	(25,75
Profit Before Tax (FRS 3)		(10,828)	(17,078)	(20,536)	(25,006)	(25,80
Tax		0	(17,070)	(20,550)	(23,000)	(23,00
Deferred tax		0	0	0	0	
Profit After Tax (norm)		(9,893)	(17,040)	(20,496)	(24,918)	(25,75
Profit After Tax (RS 3)		(10,828)	(17,078)	(20,536)	(25,006)	(25,80
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Average Number of Shares Outstanding (m)		15.4	16.8	20.7	22.6	22.
EPS - normalised (c)		(0.64)	(1.01)	(0.99)	(1.10)	(1.14
EPS - FRS 3 (c)		(0.70)	(1.02)	(0.99)	(1.10)	(1.14
Dividend per share (c)		0.0	0.0	0.0	0.0	0.
BALANCE SHEET						
Fixed Assets		457	440	414	411	43
Intangible Assets		237	206	175	105	6
Tangible Assets		220	234	239	306	37
Other		0	0	0	0	<u> </u>
Current Assets		15,480	14,613	25,981	31,523	6,24
Stocks		33	30	28	28	2
Debtors		0	0	0	0	
Cash		14,765	13,563	24,592	30,134	4,86
Other		682	1,020	1,361	1,361	1,36
Current Liabilities		(943)	(1,747)	(6,886)	(6,886)	(6,88)
Creditors		(943)	(1,747)	(6,886)	(6,886)	(6,886
Short term borrowings		0	0	0	0,000)	(0,00
Long Term Liabilities		(10)	(8)	(6)	(30,006)	(30,000
Long term borrowings		0	0	0	(30,000)	(30,000
Other long term liabilities		(10)	(8)	(6)	(6)	(50,00)
Net Assets		14,984	13,298	19,503	(4,958)	(30,20
		14,504	13,290	19,505	(4,930)	(30,20
CASH FLOW						
Operating Cash Flow		(8,869)	(15,602)	(15,095)	(24,349)	(25,16
Net Interest		0	3	0	0	
Tax		0	(6)	12	0	
Capex		(146)	(93)	(95)	(109)	(10
Acquisitions/disposals		1	0	0	0	
Financing		8	14,495	26,207	0	
Dividends		0	0	0	0	
Other		0	0	0	0	
Net Cash Flow		(9,006)	(1,203)	11,029	(24,458)	(25,27
Opening net debt/(cash)		(23,777)	(14,765)	(13,563)	(24,592)	(13
HP finance leases initiated		Ó	Ó	Ó	Ó	,
Exchange rate movements		(6)	1	0	0	
Other		0	0	0	0	
Closing net debt/(cash)		(14,765)	(13,563)	(24,592)	(134)	25,14

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