

# I-Mab BioPharma (IMAB US)

## Promising clinical results of lempzoparlimab in NHL

- Encouraging preliminary clinical data of lempzoparlimab (a differentiated anti-CD47 mAb) in combination with rituximab in NHL.** I-Mab plans to present the clinical data of lempzoparlimab in combination with rituximab in NHL at ASH 2021 Meeting. The Company released an abstract of the data on 4 Nov ([link](#)). In this ongoing Phase 1b study (NCT03934814), eight heavily pre-treated patients with r/r NHL who had progressed on prior CD20 targeted therapies were enrolled to the dose cohorts of 20 mg/kg (n=6) and 30 mg/kg (n=2). The diagnoses included DLBCL (n=2), MCL (n=1), and FL (n=5). Patients had a median age of 63 years and a median of 4 prior therapies. As of 2 Jul 2021, among 7 evaluable patients, 3 achieved CR (1 transformed FL-DLBCL + 2 FL), 1 reached PR (FL), together with 3 SD patients, indicating 57% ORR and 100% DCR. Tumor shrinkage was observed in all evaluable patients. Moreover, during continued treatment, one patient with transformed FL-DLBCL improved from PR at 2nd month to CR at 8th month and another patient with FL improved from SD at 2nd month to PR at 4th month, indicating 71% ORR and 57% CR. Mild hematologic AEs were observed with no treatment required.
- Lempzoparlimab showed best in class potential.** Globally, magrolimab (from Gilead) and ALX148 (from ALX Oncology) are the two anti-CD47/SIRP  $\alpha$  antibodies currently at late clinical stage. In NHL patients, magrolimab reported 49% ORR and 21% CR (n=75, [link](#)), and ALX148 reported 64% ORR and 27% CR (15 mg/kg QW cohort, n=11, [link](#)), which were both less effective than lempzoparlimab (71% ORR, 57% CR as of 4 Nov 2021). I-Mab plans to initiate a registrational trial of lempzoparlimab in NHL in China in 2022E. In addition, I-Mab aims to complete an AML/MDS China trial in 4Q21E and to initiate a registrational MDS trial in China in 2022E. For solid tumors, data readout of the US trial of lempzoparlimab + Keytruda is expected early next year and the IND of a Ph2 trial of lempzoparlimab + toripalimab in solid tumors was recently approved in China.
- Felzartamab (anti-CD38 mAb): concept proven in autoimmune disease treatment.** I-Mab's partner MorphoSys recently presented interim results of the ongoing Ph1b/2a study in patients with high anti-PLA2R-positive MN at the ASN 2021 meeting ([link](#)). Most patients showed a substantial reduction in pathogenic anti-PLA2R antibody titers after 12 weeks of treatment. We expect I-Mab to initiate trials of felzartamab in SLE soon. Meanwhile, felzartamab is on track to submit BLA for 3L MM in China in 4Q21E.
- Maintain BUY.** We like I-Mab given its highly-differentiated global FIC/BIC asset portfolio. We maintain our DCF-based TP unchanged at US\$101.37 (WACC: 9.74%, terminal growth rate: 3.0%).

### Earnings Summary

(YE 31 Dec)	FY19A	FY20A	FY21E	FY22E	FY23E
Revenue (RMB mn)	30	1,543	322	1,874	1,518
Net profit (RMB mn)	(1,452)	580	(1,405)	(515)	(706)
EPS (RMB per ADS)	N/A	8.07	(19.70)	(6.70)	(9.17)
Consensus EPS (RMB per ADS)	N/A	N/A	(13.72)	(10.71)	(9.79)
R&D expenses (RMB mn)	(840)	(985)	(1,100)	(1,155)	(1,213)
Capex (RMB mn)	(12)	(8)	(100)	(100)	(100)

Source: Company data, Bloomberg, CMBIS estimates

**BUY (Maintain)**

Target Price **US\$101.37**  
 (Previous TP **US\$101.37**)  
 Up/Downside **+66.18%**  
 Current Price **US\$61.00**

### China Healthcare Sector

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Mkt. Cap. (US\$ mn)	4,695
Avg. 3mths t/o (US\$ mn)	37.80
52W High/Low (US\$)	85.40/32.64
Total Issued Shares(mn)	77

Source: Bloomberg

### Shareholding Structure

Founders	3%
Pre-IPO investors	68%
Other public shareholders	29%

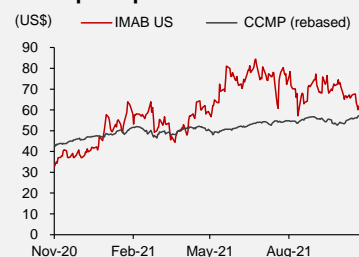
Source: Bloomberg

### Share performance

	Absolute	Relative
1-mth	-16.6%	-23.5%
3-mth	-15.6%	-21.6%
6-mth	2.9%	-11.4%

Source: Bloomberg

### 12-mth price performance



Source: Bloomberg

**Auditor: PWC**

**Web-site: www.i-mabbiopharma.com**

### Related report:

- Partnership with Sinopharm to prepare for commercialization in China – 29 Oct 2021
- CD73 confirmed as a promising target for cancer immunotherapy – 21 Sep 2021
- Diversified and highly-differentiated pipeline – 2 Sep 2021
- I-Mab expands portfolio through cutting-edge mRNA and AI technology platforms – 14 Jul 2021

**Figure 1: Efficacy and safety profile comparisons of major anti-CD47/SIRP $\alpha$  antibodies**

	Lemzoparlimab from I-Mab	Magrolimab from Gilead	ALX148 from ALX Oncology
<b>Trial ID &amp; Stage</b>	Phase 1b, NCT03934814, data cut off Nov 2021	Phase 1b+2, NCT02953509, data cut off Feb 2019	Phase 1, NCT03013218, data cut off Jun 2020
<b>Regimen</b>	20 or 30 mg/kg QW with rituximab	10-45 mg/kg QW or Q2W with rituximab	10 or 15 mg/kg QW with rituximab
<b>No. of enrolled patients</b>	8	100	33
<b>DLBCL</b>	2	63	17
<b>MCL</b>	1	0	5
<b>FL</b>	5	35	8
<b>MZL</b>	0	2	3
<b>No. of evaluable patients</b>	7	75	11 (cohort: 15mg/kg plus rituximab)
<b>ORR</b>	5 (71%)	37 (49%)	7 (64%)
<b>CR</b>	4 (57%)	16 (21%)	3 (27%)
<b>PR</b>	1 (14%)	21 (28%)	4 (36%)
<b>SD</b>	2 (29%)	N/A	1 (9%)
<b>Overall DCR</b>	7 (100%)	N/A	8 (73%)
<b>Safety</b>	The most common TRAEs were infusion-related reactions (n=4), pruritus (n=3), fatigue (n=3), rash (n=2), constipation (n=2), and dyspnea (n=2); All TRAEs were Grade 1 or 2, with one exception who reported Grade 3 TRAEs (the patient had pleural effusion at baseline); Mild hematologic AEs were observed as one isolated episode of anemia and thrombocytopenia, respectively, and no treatment was required	Treatment-related AEs occurring in >10% of patients included infusion reactions (38%), headache (34%), chills (30%), fatigue (30%), anemia (27%), nausea (24%), pyrexia (23%) vomiting (13%), and back pain (11%); The majority were G1/2 with 7% or lower being G3/4, except G3 anemia (15%) which was an expected transient first-dose effect; Treatment discontinuation due to drug-related AEs occurred in only 4/100 (4%) patients	Twenty-eight pts experienced any AE, while 16% reported mostly low grade treatment-related adverse events (TRAE); The most common TRAEs were rash (21%, n=7), fatigue (9%, n=3), anemia, nausea, neutropenia, and pruritus (6%, n=2 each)
<b>Reference</b>	<a href="#">Link</a>	<a href="#">Link</a>	<a href="#">Link</a>

Source: Company data, CMBIS

**Figure 2: Risk-adjusted DCF valuation**

DCF Valuation (in Rmb mn)	2021E	2022E	2023E	2024E	2025E	2026E	2027E	2028E	2029E	2030E	2031E	2032E	2033E	2034E	2035E
EBIT	(1,515)	(515)	(706)	130	2,340	3,267	4,880	5,788	6,398	7,199	7,762	8,228	8,572	8,794	9,083
Tax rate	0%	0%	0%	15%	15%	15%	15%	15%	15%	15%	15%	15%	15%	15%	15%
EBIT*(1-tax rate)	(1,515)	(515)	(706)	110	1,989	2,777	4,148	4,920	5,438	6,119	6,598	6,994	7,287	7,475	7,721
+ D&A	51	70	83	92	98	101	104	106	107	107	108	108	108	109	109
- Change in working capital	(330)	(338)	92	(400)	(762)	(482)	(362)	(321)	(159)	(234)	(165)	(144)	(132)	(119)	(106)
- Capex	(100)	(100)	(100)	(100)	(100)	(100)	(100)	(100)	(100)	(100)	(100)	(100)	(100)	(100)	(100)
<b>FCFF</b>	<b>(1,894)</b>	<b>(882)</b>	<b>(631)</b>	<b>(298)</b>	<b>1,225</b>	<b>2,297</b>	<b>3,790</b>	<b>4,604</b>	<b>5,286</b>	<b>5,892</b>	<b>6,440</b>	<b>6,858</b>	<b>7,163</b>	<b>7,365</b>	<b>7,624</b>
Terminal value															116,590
<b>FCF + Terminal value</b>	<b>(1,894)</b>	<b>(882)</b>	<b>(631)</b>	<b>(298)</b>	<b>1,225</b>	<b>2,297</b>	<b>3,790</b>	<b>4,604</b>	<b>5,286</b>	<b>5,892</b>	<b>6,440</b>	<b>6,858</b>	<b>7,163</b>	<b>7,365</b>	<b>124,214</b>
PV of enterprise (RMB mn)	47,274														
Net debt (RMB mn)	(2,859)														
Equity value (RMB mn)	50,133														
Equity value (US\$ mn)	7,797														
No. of ADS	76,916,392														
<b>DCF per share (US\$)</b>	<b>101.37</b>														
Terminal growth rate	3.0%														
WACC	9.74%														
Cost of Equity	12.5%														
Cost of Debt	4.0%														
Equity Beta	0.90														
Risk Free Rate	3.0%														
Market Risk Premium	10.5%														
Target Debt to Asset ratio	30.0%														
Effective Corporate Tax Rate	15.0%														

Source: CMBIS estimates

**Figure 3: Sensitivity analysis (US\$)**

		WACC				
		8.74%	9.24%	9.74%	10.24%	10.74%
Terminal growth rate	2.0%	113.59	102.69	93.31	85.16	78.04
	2.5%	119.27	107.28	97.06	88.26	80.61
	3.0%	125.95	112.61	<b>101.37</b>	91.78	83.52
	3.5%	133.89	118.87	106.37	95.82	86.82
	4.0%	143.52	126.32	112.24	100.51	90.61

Source: Company data, CMBIS estimates

**Figure 4: CMBIS estimates vs consensus**

RMB mn	CMBIS			Consensus			Diff (%)		
	FY21E	FY22E	FY23E	FY21E	FY22E	FY23E	FY21E	FY22E	FY23E
Revenue	322	1,874	1,518	396	980	1,006	-18.76%	91.26%	50.81%
Gross Profit	322	1,714	1,426	386	916	905	-16.67%	82.35%	54.72%
Operating Profit	(1,479)	(527)	(713)	(1,370)	(1,175)	(1,253)	N/A	N/A	N/A
Net profit	(1,405)	(515)	(706)	(1,292)	(1,042)	(1,122)	N/A	N/A	N/A
EPS (RMB)	(19.70)	(6.70)	(9.17)	(13.72)	(10.71)	(9.79)	N/A	N/A	N/A
Gross Margin	100.00%	91.43%	93.97%	97.00%	93.50%	89.92%	+2.50 ppt	-4.35 ppt	+2.33 ppt

Source: Company data, Bloomberg, CMBIS estimates

## Financial Statements

### Income statement

YE 31 Dec (RMB mn)	FY19A	FY20A	FY21E	FY22E	FY23E
Revenue	30	1,543	322	1,874	1,518
Cost of sales	0	0	0	(161)	(91)
<b>Gross profit</b>	<b>30</b>	<b>1,543</b>	<b>322</b>	<b>1,714</b>	<b>1,426</b>
Administrative expenses	(655)	(402)	(650)	(550)	(633)
R&D expenses	(840)	(985)	(1,100)	(1,155)	(1,213)
Selling expenses	0	0	(50)	(535)	(294)
Fair value change of warrants	6	0	0	0	0
<b>Operating profit</b>	<b>(1,459)</b>	<b>156</b>	<b>(1,479)</b>	<b>(527)</b>	<b>(713)</b>
Finance costs, net	28	23	18	11	8
Other income (expenses), net	(20)	413	55	0	0
<b>Pre-tax profit</b>	<b>(1,452)</b>	<b>592</b>	<b>(1,405)</b>	<b>(515)</b>	<b>(706)</b>
Income tax	0	(12)	0	0	0
Minority interests	0	0	0	0	0
<b>Net profit (Net loss)</b>	<b>(1,452)</b>	<b>580</b>	<b>(1,405)</b>	<b>(515)</b>	<b>(706)</b>

### Cash flow summary

YE 31 Dec (RMB mn)	FY19A	FY20A	FY21E	FY22E	FY23E
Profit before tax	(1,452)	471	(1,515)	(515)	(706)
Depreciation and amortization, etc.	16	22	51	70	83
Change in working capital	185	(241)	(330)	(338)	92
Tax paid	0	0	0	0	0
Others	384	182	0	0	0
<b>Net cash from operating activities</b>	<b>(868)</b>	<b>434</b>	<b>(1,794)</b>	<b>(782)</b>	<b>(531)</b>
Capex	(12)	(8)	(100)	(100)	(100)
Net proceeds from disposal of short-term investments	(32)	12	0	0	0
Other investing activities	257	(206)	0	0	0
<b>Net cash from investing activities</b>	<b>212</b>	<b>(202)</b>	<b>(100)</b>	<b>(100)</b>	<b>(100)</b>
Net proceeds from shares	184	3,518	0	0	0
Net bank borrowing	(30)	(50)	0	0	0
Proceeds from issuance of convertible promissory notes	0	0	0	0	0
Other financing activities	(1)	(28)	0	0	0
<b>Net cash from financing activities</b>	<b>153</b>	<b>3,440</b>	<b>0</b>	<b>0</b>	<b>0</b>
FX changes	15	(107)	0	0	0
<b>Net change in cash</b>	<b>(503)</b>	<b>3,672</b>	<b>(1,894)</b>	<b>(882)</b>	<b>(631)</b>
Cash at the beginning of the year	1,681	1,193	4,759	2,864	1,982
<b>Cash at the end of the year</b>	<b>1,193</b>	<b>4,759</b>	<b>2,864</b>	<b>1,982</b>	<b>1,351</b>

### Balance sheet

YE 31 Dec (RMB mn)	FY19A	FY20A	FY21E	FY22E	FY23E
<b>Non-current assets</b>	<b>376</b>	<b>990</b>	<b>1,039</b>	<b>1,069</b>	<b>1,086</b>
PP&E	30	25	83	122	147
Operating lease right of use assets	16	15	6	(3)	(12)
Intangible assets	149	120	120	120	120
Goodwill	163	163	163	163	163
Other non-current assets	18	667	667	667	667
<b>Current assets</b>	<b>1,361</b>	<b>5,344</b>	<b>3,319</b>	<b>2,753</b>	<b>1,997</b>
Inventories	0	0	0	53	30
Trade and bills receivables	0	130	0	264	161
Prepayments, other receivables	136	195	195	195	195
Other financial assets	0	0	0	0	0
Cash and bank balances	1,137	4,759	2,864	1,982	1,351
<b>Current liabilities</b>	<b>588</b>	<b>576</b>	<b>116</b>	<b>95</b>	<b>61</b>
Short-term borrowings	50	0	0	0	0
Advance from customers	0	0	0	0	0
Other payables and accruals	274	561	100	79	45
Operating lease liabilities, current	7	8	8	8	8
Other current liabilities	258	8	8	8	8
<b>Non-current liabilities</b>	<b>80</b>	<b>131</b>	<b>131</b>	<b>131</b>	<b>131</b>
Convertible promissory notes	68	0	0	0	0
Onshore convertible loans	7	6	6	6	6
Deferred subsidy income	4	0	0	0	0
<b>Total net assets</b>	<b>1,069</b>	<b>5,627</b>	<b>4,112</b>	<b>3,597</b>	<b>2,891</b>
Minority interest	0	0	0	0	0
<b>Shareholders' equity</b>	<b>1,069</b>	<b>5,627</b>	<b>4,112</b>	<b>3,597</b>	<b>2,891</b>

### Key ratios

YE 31 Dec	FY19A	FY20A	FY21E	FY22E	FY23E
<b>Profit &amp; loss ratios (%)</b>					
Gross margin	100	100	100	85	86
EBITDA margin	N/A	N/A	(461.17)	(24.34)	(41.51)
Net margin	N/A	N/A	(471.24)	(27.48)	(46.49)
Effective tax rate (%)	N/A	N/A	N/A	N/A	N/A
<b>Balance sheet ratios</b>					
Current ratio (x)	2	9	29	29	33
Trade receivables turnover	N/A	N/A	90	90	90
Trade payables turnover days	N/A	N/A	180	180	180
Total debt to asset ratio (%)	38	11	6	6	6
<b>Returns (%)</b>					
ROE	(136)	8	(37)	(14)	(24)
ROA	(84)	7	(35)	(13)	(23)
<b>Per share data</b>					
EPS (RMB)	N/A	8.1	(19.7)	(6.7)	(9.2)
DPS (RMB)	0.0	0.0	0.0	0.0	0.0
BVPS (RMB)	N/A	96.5	53.5	46.8	37.6

Source: Company data, CMBIS estimates

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