研究报告 Research Report
28 Jul 2022

天境生物 I-Mab Biopharma (IMAB US)

研发日披露多个积极数据，包括 CD47 MDS，CD73 以及早期管线

R&D day disclosed positive CD47 MDS data, also focusing on CD73 and early stage pipelines

观点聚焦 Investment Focus

维持优于大市 Maintain OUTPERFORM

评级	优于大市 OUTPERFORM
现价	US$10.42
目标价	US$61.08
MSCI ESG 评级	BBB
市值	US$0.86bn
日交易额 (3 个月均值)	US$9.45mn
发行股票数目	82.65mn
自由流通股 (%)	100%
1 年股价最高最低值	US$80.35-US$8.27

来源: MSCI ESG Research LLC. Reproduced by permission; no further distribution

注：现价 US$10.42 为 2022 年 7 月 26 日收盘价

资料来源： Factset

	1mth	3mth	12mth
绝对值	-15.6%	-17.7%	-85.8%
绝对值（美元）	-15.6%	-17.7%	-85.8%
相对 MSCI China	-15.6%	-17.7%	-85.8%

(Rmb mn)	Dec-21A	Dec-22E	Dec-23E	Dec-24E
营业收入	88	744	1,070	1,983
(+/-)	-94%	746%	44%	85%
净利润	-2,332	-1,311	-1,444	-39
(+/-)	n.m.	n.m.	n.m.	n.m.
全面摊薄 EPS (Rmb)	-13.35	-7.50	-8.27	-0.22
毛利率	47.3%	95.0%	90.0%	90.0%
净资产收益率	-50.8%	-40.0%	-78.8%	-2.2%
市盈率	n.m.	n.m.	n.m.	n.m.

资料来源：公司信息, HTI

(Please see APPENDIX 1 for English summary)

事件

公司于 7 月 20 日举行研发日。

首次发布来佐利单抗（CD47）联用阿扎胞苷在 MDS 适应症积极数据。在未经筛选的 MDS 患者中（TP53 突变占 10%) ORR 约 85%，CR 约 33%。详细数据已被选为优选口头报告形式在今年 ESMO 会议（9 月 13 日）发布。公司认为整体安全性良好，尚未披露详细安全性数据，但无预激给药。我们认为首次发布的 MDS 疗效数据降低了来佐利单抗的管线风险，缓解率与进展最快的 CD47 单抗吉利德 Magrolimab 的 ORR/CR 79%/33%相当，并与阿扎包苷联用维奈克拉疗效相当，但是 CD47 单抗组合的血液毒性更低（表一）。CD47 单抗继续有望以安全性优势成为 AML/MDS 标准治疗方案。公司已于 2022 年第二季度向 CDE 递交临床设计方案，并正在沟通方案。计划于 2022 下半年启动来佐利单抗的 MDS 三期临床试验。

艾伯维终止来佐利单抗在多发性骨髓瘤美国临床研究。来佐利单抗单药或联合地塞米松以及抗骨髓瘤药物治疗多发性骨髓瘤的临床试验（NCT04895410），是由艾伯维开展的一项探索性临床研究。艾伯维因战略调整终止了此项试验，该决定与来佐利单抗的安全性无关。我们认为可能与吉利德正在进行但是暂停入组的多发性骨髓瘤临床，以及 MM 整体竞争格局较为激烈有关。国内临床方面，公司将按计划继续探索来佐利单抗与其它抗肿瘤药物联用治疗多发性骨髓瘤的研究。

艾伯维主导的来佐利单抗联合阿扎胞苷和维奈托克（venetoclax）治疗 AML/MDS 的临床试验（NCT04912063）继续推进。最新临床状态显示，艾伯维在今年 6 月曾更新入组状态，目前还是处于 1/2 期入组阶段。我们认为吉利德的 CD47 单抗临床延误或影响来佐利单抗在艾伯维管线研发优先顺序，因为目前标准疗法阿扎胞苷和维奈托克都是艾伯维旗下药物，竞对进度受阻代表 CD47 单抗迭代当前标准疗法的时间也会延后，因此研发急迫性减少。虽然如此我们认为来佐利单抗依然是艾伯维的重要管线之一。

尤莱利单抗（CD73 单抗）更新完整 CD73 高表达患者积极数据。在国内二期临床，尤莱利单抗联合特瑞普利的队列 3 晚期非小细胞肺癌不适合或拒绝标准治疗 19 名患者之中，7 名属于高表达（≥35%），出现 4 PR 3 SD，ORR 57%。虽然此数据不是预先设定的分组分析，但是早期数据积极，我们认为后续可以保持关注 2H22 将会披露的尤莱利单抗特瑞普利单抗治疗 NSCLC 新数据，以及随访时间进一步延长后的缓解率生存获益数据。

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其他早期管线介绍。早期研发方向聚焦 1）冷肿瘤转化热肿瘤，包括数个免疫激活机制产品 TJ-CD4B（CLDN18.2 x 4-1BB）、TJ-L1IF（PD-L1 x Interferon-a）、TJ-C64B（CLDN6 x 4-1BB）、TJ-L14B（PD L1 x 4-1BB）。2）免疫佐剂路线，包括二期临床的 IL-7、TJ-AJ1（靶向 IL-18）、TJ-AJ2（靶向 GM-CSF）、TJ-CP1 等分子。

我们认为当前核心管线预期较低，股价整体也受到非基本面因素处于历史低位。但是 CD47 整体血液瘤疗效数据依然扎实，CD73 高表达人群早期小样本数据有亮点。低预期之下 2H22 数据读出可能会催化公司股价，包括 1）ESMO（9 月）正式读出来佐利单抗联合阿扎包苷 MDS 数据；2）尤莱利单抗特瑞普利单抗治疗 NSCLC 新数据（4Q22）；3）TJCD4B 一期临床初步数据（4Q22）。

模型更新

1）来佐利单抗（CD47）由于首次披露较为积极的 MDS 数据，上调 PoS 从 60%->65%；美国临床进展较慢，上市时间从 2025 年延后至 2026 年。2）移除 TJ301（IL-6）估值，主要由于公司管线图移除了 TJ301；3）移除 B7-H3 估值，由于美国合作伙伴 MacroGenics 在 B7-H3 的 SCCHN 临床阶段严重出血事件，终止该适应症研发（新闻稿）；4）移除 GM-CSF（TJM2）主要由于公司集中研发核心管线，新冠适应症研发已经减少投放资源。5）TJ-CD4B (Claudin 18.2/4-1BB) 下调适应症空间以及市场份额，主要由于我们认为 Claudin 18.2 ADC 可能在 Claudin18.2 高表达人群中的疗法卓越，以及中低表达同样有效，对 4-1BB 路线的份额形成冲击。

估值

维持"优于大市"评级，调整目标价至每 ADS 61.08 美元（前值 76.35 美元）。我们预计公司 FY22-24 风险调整后的收入分别为人民币 7.44 亿元、10.70 亿元、19.83 亿元（前值为人民币 7.44 亿元、11.33 亿元、23.84 亿元），收入下调主要反映 CD47 的 AML 适应症三期临床启动时间后延的影响；我们预计公司 FY22-24 净亏损分别为人民币-13.11 亿元、-14.44 亿元、-0.39 亿元（前值净亏损为-13.11 亿元、-15.31 亿元、-0.51 亿元）。我们采用 DCF 模型对公司进行估值，WACC 给予 11.7%（前值 11.4%），上调主要由于贡献主要现金流的 CD47 海外进入关键性临床时间推迟。永续增长率取 3.0%（未改变）得到整体估值 43.98 亿美元。我们维持"优于大市"评级和目标价每 ADS 61.08 美元。

风险

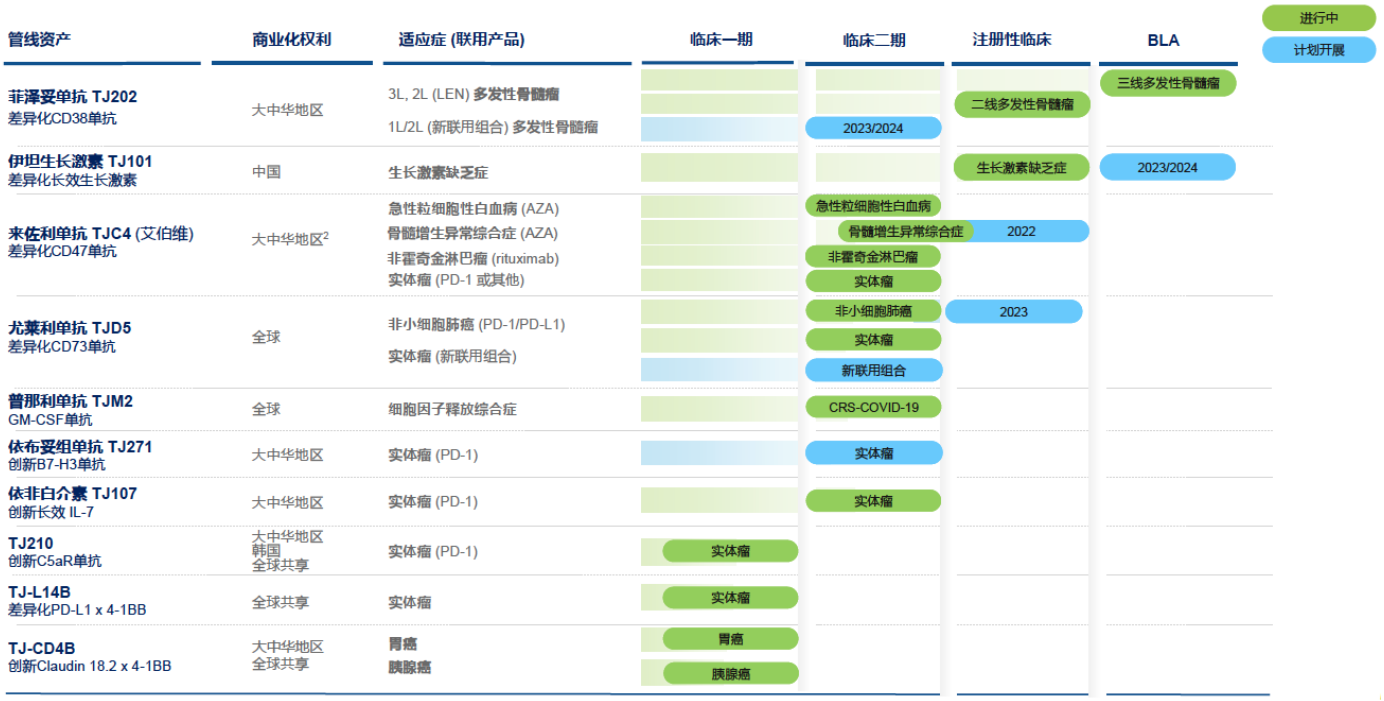
ADR 退市风险、CD73 发生海外授权事件的不确定性、风险资产数据读出风险。

表1　MDS 适应症阿扎包苷、维奈克拉组合以及联合 CD47 数据

公司	适应症	试验阶段	疗法类型	适应症详情	入组数	最优剂量有效性	参考文献	≥G3贫血	≥G3中性粒细胞减少	≥G3血小板减少	NCT号
magrolimab-阿扎胞苷联用											
Gilead Sciences	急性髓系白血病/骨髓增生异常综合征	I期	一线	AML/MDS	68	ORR: 79%; CR/CRi: 48%	ASCO 2020				NCT03248479
Gilead Sciences	骨髓增生异常综合征	I期	一线	HR-MDS	95	TP53-wt MDS (n=61) ORR 79%, CR 33% TP53-mut MDS (n=25) ORR 68%, CR 40%	ASCO 2022	29%	21%	29%	NCT03248479
阿扎胞苷单用											
Celgene	骨髓增生异常综合征	III期	一线	HR-MDS	358	mOS 24.5 months ORR: 29%	Lancet Oncol. 2009; 10(3):223	57%	91%	85%	
阿扎胞苷-维奈克拉联用											
AbbVie + Genentech, Inc.	骨髓增生异常综合征	I期	一线	HR-MDS	43	ORR: 86%（减毒方案）	ASCO 2021	减毒方案1：14% 减毒方案2：33%	减毒方案1：55% 减毒方案2：48%	减毒方案1：32% 减毒方案2：38%	NCT02942290
AbbVie + Genentech, Inc. + Celgene	骨髓增生异常综合征	I期	经治	R/R MDS	44	ORR: 38.6%	ASH 2021	18%	27%	32%	NCT02966782
Genentech, Inc.	骨髓增生异常综合征	I期	经治	R/R HR-MDS	12	ORR: 75%	ASCO 2022	33%			NCT04550442
来佐利单抗-阿扎胞苷联用											
天境生物	骨髓增生异常综合征	中国I/II期	一线	HR-MDS	尚未公布	ORR: ~85%, CR: ~33%	ESMO 2022	尚未公布			NCT04202003

资料来源：ClinicalTrials.gov，HTI

表2　研发日公布的研发管线图



资料来源：ClinicalTrials.gov，HTI

表3 预测上市时间以及峰值变化

	Old model estimation				New model estimation			
Drugs	Est.Launch	Est.Peak	Success rate	Risk adj. peak sales (Rmb mn)	Est.Launch	Est.Peak	Success rate	Risk adj. peak sales (Rmb mn)
In-house-products								
TJC4 (CD47) - in China	2024E	2029E	60%	1,300	2025E	2030E	65%	1,409
TJD5 (CD73) - in China	2025E	2028E	40%	376	2025E	2028E	40%	376
TJM2 (GM-CSF) - global	2025E	2031E	30%	181	NA	NA	NA	0
TJ-CD4B (Claudin 18.2/4-1BB) - global	2025E	2031E	10%	1,364	2026E	2031E	15%	359
In-licensed products in China								
TJ202 (CD38) - only in China	2023E	2029E	90%	1,023	2023E	2029E	90%	1,023
TJ101 (LAGH) - only in China	2024E	2031E	70%	400	2024E	2031E	70%	400
TJ301 (IL-6)	2024E	2031E	40%	396	NA	NA	NA	0
TJ107 (IL-7) - only in China	2024E	2031E	50%	141	2025E	2031E	50%	141
B7-H3 - only in China	2024E	2031E	20%	85	NA	NA	NA	0
TJ210 (C5aR) - only in China	2026E	2031E	15%	109	2026E	2031E	15%	109
Upfront, milestone & royalty								
related to TJC4		2030E	50%	3,213		2031E	50%	3213
related to TJD5		2031E	40%	2,085		2031E	40%	2085
related to TJ101		2031E	70%	179		2031E	70%	179

资料来源：HTI

DCF 估值模型

表4 DCF 估值模型

RMB mn	FY21	FY22E	FY23E	FY24E	FY25E	FY26E	FY27E	FY28E	FY29E	FY30E	FY31E
	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031
Forecast Year	1	2	3	4	5	6	7	8	9	10	11
Time Factor (fraction of year to next FY end)	1.0	2.0	3.0	4.0	5.0	6.0	7.0	8.0	9.0	10.0	11.0
Sales	**88.0**	**744.5**	**1,069.7**	**1,983.2**	**3,565.7**	**4,625.2**	**6,495.3**	**7,084.5**	**8,779.3**	**8,973.1**	**9,262.9**
... Growth	*-94.3%*	*745.7%*	*43.7%*	*85.4%*	*79.8%*	*29.7%*	*40.4%*	*9.1%*	*23.9%*	*2.2%*	*3.2%*
Gross Profit	41.6	707.2	962.7	1,784.9	3,280.4	4,255.2	5,975.7	6,517.7	8,076.9	8,255.3	8,521.9
... GP Margin	*47.3%*	*95.0%*	*90.0%*	*90.0%*	*92.0%*	*92.0%*	*92.0%*	*92.0%*	*92.0%*	*92.0%*	*92.0%*
SG&A	0.0	0.0	-256.7	-357.0	-748.8	-832.5	-974.3	-850.1	-877.9	-897.3	-926.3
... SG&A Margin	*0.0%*	*0.0%*	*24.0%*	*18.0%*	*21.0%*	*18.0%*	*15.0%*	*12.0%*	*10.0%*	*10.0%*	*10.0%*
Depreciation & Amortisation	4.7	14.4	28.7	37.2	43.8	55.4	71.7	79.4	73.4	69.0	65.5
EBIT	**-2334.7**	**-1281.5**	**-1412.0**	**-38.2**	**663.2**	**1640.2**	**2814.3**	**3492.7**	**4762.2**	**4866.8**	**5023.3**
Add: Amortisation	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EBITA	**-2334.7**	**-1281.5**	**-1412.0**	**-38.2**	**663.2**	**1640.2**	**2814.3**	**3492.7**	**4762.2**	**4866.8**	**5023.3**
... Margin	*-2652.3%*	*-172.1%*	*-132.0%*	*-1.9%*	*18.6%*	*35.5%*	*43.3%*	*49.3%*	*54.2%*	*54.2%*	*54.2%*
... Growth											
Add: Depreciation	4.7	14.4	28.7	37.2	43.8	55.4	71.7	79.4	73.4	69.0	65.5
EBITDA	**-2,330.0**	**-1,267.1**	**-1,383.3**	**-1.0**	**706.9**	**1,695.5**	**2,886.0**	**3,572.1**	**4,835.5**	**4,935.8**	**5,088.8**
... Margin	*-2647.0%*	*-170.2%*	*-129.3%*	*0.0%*	*19.8%*	*36.7%*	*44.4%*	*50.4%*	*55.1%*	*55.0%*	*54.9%*
Less: Tax	3.2	0.0	0.0	0.0	-72.9	-180.4	-309.6	-384.2	-523.8	-535.4	-552.6
Less: Minority Interests	0.0	-29.2	-32.1	-0.9	13.4	33.2	57.0	70.8	96.5	98.6	101.8
Less: Increase of Working Capita	200.0	200.0	200.0	200.0	200.0	200.0	200.0	200.0	200.0	200.0	200.0
Less: Capex	-13.2	-111.7	-107.0	-59.5	-107.0	-138.8	-194.9	-35.4	-43.9	-44.9	-46.3
... Capex:Depreciation	*2.8x*	*7.8x*	*3.7x*	*1.6x*	*2.4x*	*2.5x*	*2.7x*	*0.4x*	*0.6x*	*0.7x*	*0.7x*
Less: Acquisitions	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Free Cash Flow	**-2,140.1**	**-1,207.9**	**-1,322.4**	**138.7**	**740.4**	**1,609.6**	**2,638.6**	**3,423.3**	**4,564.3**	**4,654.2**	**4,791.7**
... FCF Growth		*-43.6%*	*9.5%*	*-110.5%*	*433.9%*	*117.4%*	*63.9%*	*29.7%*	*33.3%*	*2.0%*	*3.0%*
PV of FCF	**-1,915.6**	**-967.8**	**-948.5**	**89.0**	**425.5**	**828.0**	**1,215.0**	**1,411.1**	**1,684.1**	**1,537.2**	**1,416.6**

WACC		**DCF Valuation**	
Risk Free Rate	3.0%	Sum of PV of FCF	6,690.3
Market Risk Premium	12.5%	PV of Terminal Value	16,742.9
Equity Beta	0.92	Enterprise Value	23,433.2
Cost of Equity	14.6%	Add: Net Cash FY21	4,052.8
Cost of Debt (Pre-tax)	6.0%	Equity Value	27,486.0
Cost of Debt (After tax)	5.1%	No. of Ord shares (m), fully diluted	72.0
Target Debt weight	30.0%		
Target Equity weight	70.0%	Value per Share, RMB	381.73
Tax Rate	15.0%	FX: RMB/USD	0.16
WACC	**11.7%**	**Terminal Growth** **3.0%**	**Value per Share, USD** **$61.08**

资料来源：HTI

财务报表

表5 财务报表

Key ratios	2021A	2022E	2023E	2024E
EPS(RMB)	-13.35	-7.50	-8.27	-0.22
BVPS(RMB)	26.26	18.76	10.49	10.27
Operating cash flow per share(RMB)	-12.05	-5.99	-6.65	1.26
DPS(RMB)	0.00	0.00	0.00	0.00
P/E	n.a.	n.a.	n.a.	n.a.
P/B	4.04	5.66	10.12	10.34
P/S	7.93	4.28	2.38	1.83
EV/EBITDA	-5.06	-8.39	-6.76	-9979.63
Dividned yield	0%	0%	0%	0%
Gross margin	47%	95%	90%	90%
Net margin	-2649%	-176%	-135%	-2%
ROE	-51%	-40%	-79%	-2%
ROA	-41%	-31%	-50%	-1%
ROIC	-26%	-20%	-39%	-1%
Revenue growth	-94%	746%	44%	85%
EBIT growth	-582%	-45%	10%	-97%
Net profit growth	-595%	45%	-10%	97%
Asset/liability ratio	541%	424%	278%	268%
Liquidlity ratio	766%	509%	273%	255%
Quick ratio	762%	505%	264%	238%
Cash ratio	565%	360%	163%	176%
AR days	137	73	73	73
Inventory days	214	214	214	214
Total asset turnover	0.01	0.15	0.30	0.69
Fixed asset turnover	2.48	7.89	5.87	8.53

IS (RMB mn)	2021A	2022E	2023E	2024E
Revenue	**88**	**744**	**1070**	**1983**
COGS	46	37	107	198
GPM (%)	47%	95%	90%	90%
Business tax and surcharges	-3	0	0	0
Tax rate (%)	0%	11%	11%	11%
Operating expense	**2113**	**2010**	**2396**	**1844**
Operating expense ratio (%)	2400%	270%	224%	93%
Selling expense	0	0	257	357
Selling expense ratio (%)	0%	0%	24%	18%
Administrative expense	900	372	428	397
Administrative expense ratio (%)	1022%	50%	40%	20%
R&D expense	1213	1638	1711	1091
R&D expense ratio (%)	1378%	220%	160%	55%
EBIT	-2335	-1281	-1412	-38
Financing expense	0	0	0	0
Financing expense ratio (%)	0%	0%	0%	0%
Assets impairment loss	0	0	0	0
Investment profit	21	21	21	21
Operating profit	**-2071**	**-1303**	**-1433**	**-59**
Exceptional income-net	0	0	0	0
Pre-tax profit	**-2335**	**-1281**	**-1412**	**-38**
EBITDA	-2330	-1267	-1383	-1
Taxation	-3	0	0	0
Tax rate (%)	0%	11%	11%	11%
Deemed dividend to preferred shareholders	0	29	32	1
Net income to ord equity	**-2332**	**-1311**	**-1444**	**-39**

Financial statement (RMB mn)	2021A	2022E	2023E	2024E
Cash	3524	2366	1097	1258
Account receivable	33	149	214	397
Inventory	27	22	63	116
Other current assets	1198	808	463	46
Total current assets	4782	3345	1837	1817
Long-term equity investment				
Tangible assets	158	256	334	356
Construction in progress				
Intangible assets	120	120	120	120
Total non-current assets	848	945	1023	1046
Total assets	**5630**	**4290**	**2860**	**2862**
Short-term debts	0	0	0	0
Account payable	0	34	48	89
Deferred revenue	0	0	0	0
Other current liabilities	624	624	624	624
Total current liabilities	624	658	672	713
Long-term debts	224	224	224	224
Other long-term liabilities	194	131	131	131
Total non-current liabilities	418	355	355	355
Total liabilities	**1042**	**1013**	**1027**	**1068**
Shareholders' equity	4588	3277	1833	1794
Accumulated deficit	-4541	-5852	-7296	-7335
Mezzanine equity	3104	3133	3165	3166
Total liabilities and equities	**5629**	**4290**	**2860**	**2862**

Cash flow (RMB mn)	2021A	2022E	2023E	2024E
Net profit	-2332	-1281	-1412	-38
Deemed dividend to preferred shareholders	0	29	32	1
Depreciation & Amortization	5	14	29	37
Net Interest Expenses / (Income)	-21	-21	-21	-21
Change in working capital	-200	-200	-200	-200
Operating cash flow	**-2106**	**-1046**	**-1162**	**220**
Assets	-13	-112	-107	-59
Investment	0	0	0	0
Others	0	0	0	0
Investment cash flow	**-13**	**-112**	**-107**	**-59**
Increase in debts	224	0	0	0
Proceeds from issue of shares	0	0	0	0
Others	0	0	0	0
Financing cash flow	**224**	**0**	**0**	**0**
Net cash inflow	**-1895**	**-1157**	**-1269**	**161**

资料来源：HTI

APPENDIX 1

Summary

The company held R&D day on July 20.

First published positive data for lemzoparlimab (CD47) in combination with azacitidine in MDS indications. In unscreened MDS patients (10% with TP53 mutation) ORR ~85% and CR ~33%. Detailed data has been selected as oral presentation at this year's ESMO meeting (13 Sep). The company believes that the overall safety is good, though detailed safety data not disclosed yet. We believe that the first published MDS efficacy data lower the pipeline risk of lemzoparlimab, with response rates comparable to the ORR/CR 79%/33% of the most advanced peer, Gilead's Magrolimab, and with an efficacy comparable to azacitidine+venetoclax, but the CD47 combo had lower hematologic toxicity (Table 1). CD47 mAb is expected to become the standard treatment for AML/MDS with its CR and safety advantages. The company has submitted a clinical design proposal to CDE in 2Q22 and is communicating the proposal. A Phase III clinical trial of lemzoparlimab in MDS is planned to be initiated in the 2H22.

AbbVie discontinues U.S. clinical study of lemzoparlimab in multiple myeloma. The clinical trial of lemzoparlimab alone or in combination with dexamethasone and antimyeloma drug in multiple myeloma (NCT04895410) is an exploratory clinical study conducted by AbbVie. AbbVie discontinued the trial due to a strategic consideration, a decision not related to the safety of lemzoparlimab. We believe that the decision may be related to Gilead's ongoing but suspended enrollment multiple myeloma clinical trial, as well as the fiercer competition in MM. In terms of China clinical development plan of lemzoparlimab, the company will continue to explore the study of lemzoparlimab in combination with other anti-tumor drugs in the treatment of multiple myeloma as planned. **The AbbVie-led clinical trial of lemzoparlimab in combination with azacitidine and venetoclax in AML/MDS continues to advance (NCT04912063) but slower.** The latest clinical status shows that AbbVie updated the enrollment status in June this year and is still in the Phase 1/2 enrollment stage. We believe that the clinical slowdown of Gilead's CD47 mAb may affect the development priority of lemzoparlimab in AbbVie's pipeline, because the current standard therapy azacitidine and venetoclax are both AbbVie's drugs, competitor's hindered progress means that the urgency of development its CD47 is lower. Nonetheless, we believe that lemzoparlimab remains one of AbbVie's important early pipelines.

Uliledimab (CD73 mAb) updated positive data for patients with high CD73 expression. In china phase II clinical trial, among the 19 patients with advanced non-small cell lung cancer in cohort 3 who were not suitable for or refused standard treatment, Uliledimab combined with PD-1 treated 7 with highly expressed CD73 status (≥35%). Among all had 4 PRs 3 SD, ORR 57%. Although this data is not a pre-specified group analysis, but it is positive. We believe that we can keep an eye on the new data set of Uliledimab + PD-1 in the treatment of NSCLC that will be disclosed in 2H22, as well as the response rate and survival benefit data at a longer follow-up time.

Other early pipelines. Early R&D focus on 1) Cold tumors transform into hot tumors, including 1) products with immune activation mechanism such as TJ-CD4B (CLDN18.2 x 4-1BB), TJ-L1IF (PD-L1 x Interferon-a), TJ-C64B (CLDN6 x 4-1BB), TJ-L14B (PD L1 x 4-1BB). 2) Immune adjuvant route, including phase II clinical molecules such as IL-7, TJ-AJ1 (targeting IL-18), TJ-AJ2 (targeting GM-CSF), and TJ-CP1.

We believe that the expectation on company's pipeline is now at a low point after successive setbacks, and the overall stock price is also hampered by non-fundamental factors. However, the overall efficacy data of CD47 in hematological tumors are still solid, and the early small sample data of CD73 high expression population brings hope. 2H22 data readout under low expectations may catalyze the company's share price, including 1) ESMO (Sep 13) officially read-out the MDS data of lemzoparlimab combined with azacitidine; 2) Uliledimab + PD-1 updated data for the treatment of NSCLC (4Q22); 3) Preliminary Phase I clinical data of TJCD4B (4Q22).

Model update: 1) Lemzoparlimab (CD47) increases PoS from 60%->65% due to the MDS de-risked; the clinical progress in the U.S. is slow, and the time to market is delayed from FY2025 to FY2026. 2) TJ301 (IL-6) was removed from valuation, mainly due to the removal of TJ301 from the company's pipeline map; 3) B7-H3 was removed from valuation, due to fatal hemorrhage events in the SCCHN clinical stage of B7-H3 by US partner MacroGenics, leading to the termination of clinical trial (press release); 4) Removal of GM-CSF (TJM2) from valuation due to the company's focus on research and development of the core pipeline, and the research and development of Covid indication has been very much slowdown by the company. 5) Lower the indication and market share of TJ-CD4B (Claudin 18.2/4-1BB), mainly because we believe that Claudin 18.2 ADC may have excellent data in the Claudin18.2 high expression population, while demonstrating efficacy in mid-to-low expression.

Valuation: **Maintain "Outperform" rating and adjust target price to $61.08 per ADS (previously $76.35).** We estimate the company's FY22-24 risk-adjusted revenue to be RMB 744 million, RMB 1.070 billion, and RMB 1.983 billion (previously RMB 744 million, RMB 1.133 billion, and RMB 2.384 billion), respectively. The revenue cut mainly reflects delayed CD47's AML phase III clinical trial; we also expect the company's FY22-24 net losses to be RMB -1.311 billion, -1.444 billion, and -39 million respectively (previous value net losses were -1.311 billion, -1.531 billion yuan, -51 million yuan). We use the DCF model to value the company, and WACC 11.7% (previous value 11.4%). The upward adjustment is mainly due to the delay in the overseas progress of CD47, which contributes to the main cash flow, into key clinical trials. Terminal growth rate 3.0% (unchanged) yields an overall valuation of $4.398 billion USD. We maintain our "Outperform" rating and target price of $61.08 per ADS.

Risk: ADR delisting risk; uncertainty of out-licensing event for CD73; risk of negative data readout.

附录 APPENDIX

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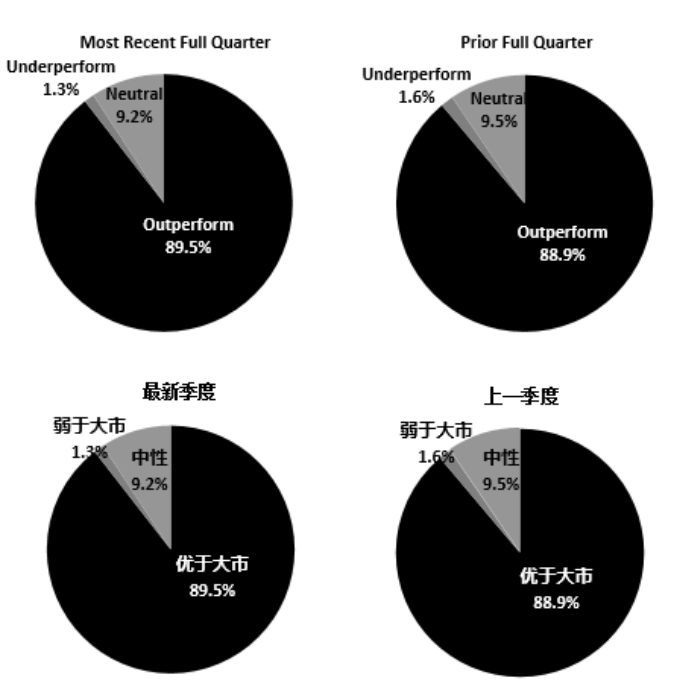

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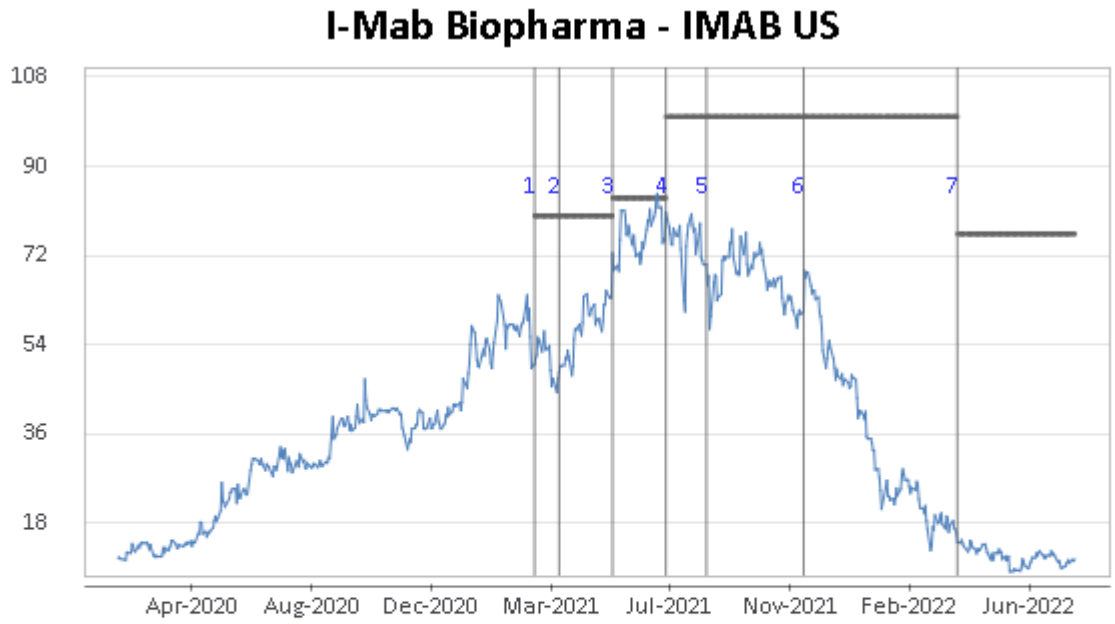
Recommendation Chart



1. 8 Mar 2021 OUTPERFORM at 49.28 target 79.99.
2. 31 Mar 2021 OUTPERFORM at 44.38 target 79.99.
3. 20 May 2021 OUTPERFORM at 63.46 target 83.59.
4. 9 Jul 2021 OUTPERFORM at 74.94 target 100.0.
5. 16 Aug 2021 OUTPERFORM at 70.18 target 100.0.
6. 15 Nov 2021 OUTPERFORM at 61.0 target 100.0.
7. 8 Apr 2022 OUTPERFORM at 16.69 target 76.35.

Source: Company data Bloomberg, HTI estimates