

I-Mab BioPharma (IMAB US)

Global strategic partnership with AbbVie

■ **Global strategic partnership with AbbVie on TJC4 and other transformative therapies.** I-Mab reached a broad, global collaboration agreement with AbbVie for the development and commercialization of TJC4 (lemzoparlimab), an innovative anti-CD47 monoclonal antibody internally discovered and developed by I-Mab. The two partners have the potential to expand the collaboration to additional transformative therapies. I-Mab retains all rights to develop and to commercialize lemzoparlimab in mainland China, Macau and Hong Kong. Under the terms of the agreement, AbbVie will pay I-Mab US\$180mn in an upfront payment to exclusively license lemzoparlimab, along with US\$20mn in a milestone payment based on the phase 1 results, for a total of US\$200mn. In addition, I-Mab will be eligible to receive up to US\$1.74bn in success-based milestone payments for lemzoparlimab, of which US\$840mn are based on clinical development and regulatory approval milestones, with the remainder based on commercial milestones (i.e. net sales). Upon commercialization of lemzoparlimab, AbbVie will also pay tiered royalties from low-to-mid teen percentages on global net sales outside of greater China. Going forward, I-Mab will work closely with AbbVie to facilitate clinical development of lemzoparlimab both globally and in China. We see potential significant synergies between I-Mab's lemzoparlimab and AbbVie's Venclexta (Venetoclax, a Bcl-2 inhibitor) in treating AML and MDS.

■ **Topline safety data of lemzoparlimab proved its differentiation.** Lemzoparlimab is a highly differentiated CD47 antibody as it was designed to minimize inherent binding to normal red blood cells while preserving its strong anti-tumor activity. I-Mab disclosed the topline results of the recently completed phase 1 dose-escalation clinical trial in the US. Lemzoparlimab is well tolerated as a single agent at a dose range of up to 30 mg/kg without introducing any priming dosing strategy. In all DLT-evaluable patients, no dose-limiting toxicities or severe hematologic adverse events were observed. Full data will be presented at an appropriate scientific conference, probably at the SITC Annual Meeting this year.

■ **US\$418mn private placement.** I-Mab also announced that it has entered into definitive subscription agreements with a consortium of institutional investors to raise approximately US\$418mn through a private placement with Hillhouse Capital-Led Consortium. As of June 30, 2020, I-Mab had cash and equivalents of US\$221mn. Upon the completion of the placement and receiving the initial payment from AbbVie, I-Mab will have more than US\$800mn cash on hand, providing sufficient funding for future R&D investments.

■ **Maintain BUY.** Given the recent progresses, we upgrade our TP from US\$41.30 to US\$52.57 based on 15-year risk-adjusted DCF model (WACC: 10.6%, terminal growth rate: 3.0%).

Earnings Summary

(YE 31 Dec)	FY18A	FY19A	FY20E	FY21E	FY22E
Revenue (RMB mn)	54	30	1,400	1,533	806
YoY growth (%)	365	(44)	4,567	N/A	(47)
Net loss (RMB mn)	(403)	(1,452)	204	(674)	(1,157)
EPS (RMB per ADS)	N/A	N/A	2.89	(9.56)	(16.41)
R&D expenses (RMB mn)	(426)	(840)	(900)	(1,000)	(1,050)
Capex (RMB mn)	(14)	(12)	(100)	(100)	(100)

Source: Company data, CMBIS estimates

BUY (Maintain)

Target Price **US\$52.57**
 (Previous TP **US\$41.30**)
 Up/Downside **+41.81%**
 Current Price **US\$37.07**

China Healthcare Sector

Jill Wu, CFA
 (852) 3900 0842
 jillwu@cmbi.com.hk

Sam Hu, PhD
 (852) 3900 0882
 samhu@cmbi.com.hk

Mkt. Cap. (US\$ mn)	2,144
Avg. 3mths t/o (US\$ mn)	3.48
52W High/Low (US\$)	42.3/9.3
Total Issued Shares (mn)	58

Source: Bloomberg

Shareholding Structure

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

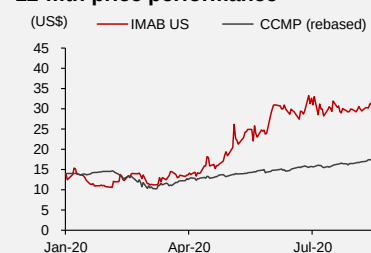
Source: Bloomberg

Share performance

	Absolute	Relative
1-mth	26.5%	23.0%
3-mth	61.2%	39.8%
6-mth	162.9%	103.1%

Source: Bloomberg

12-mth price performance



Source: Bloomberg

Auditor: PWC
Web-site: www.i-mabbiopharma.com

Related report:
 Innovation for biologics – 26 Aug 2020

Global strategic collaboration with AbbVie on TJC4 and other transformative therapies

On 4 Sep 2020, I-Mab has signed a broad, global collaboration agreement with AbbVie (ABBV US) for the development and commercialization of TJC4 (lemzoparlimab), an innovative anti-CD47 monoclonal antibody internally discovered and developed by I-Mab. In addition, the two partners have the potential to expand the collaboration to additional transformative therapies.

The collaboration provides AbbVie with an exclusive global license, excluding greater China, to develop and commercialize lemzoparlimab. Both companies will collaborate to design and conduct further global clinical trials to evaluate lemzoparlimab in multiple cancers. I-Mab retains all rights to develop and to commercialize lemzoparlimab in mainland China, Macau and Hong Kong.

The collaboration also allows for potential collaboration on future CD47-related therapeutic agents. Each party will have the opportunity subject to further licenses to explore each other's related programs in their respective territories.

The companies will share manufacturing responsibilities with AbbVie being the primary manufacturer for global supply. The collaboration will accelerate I-Mab's establishment of commercial production operations in China.

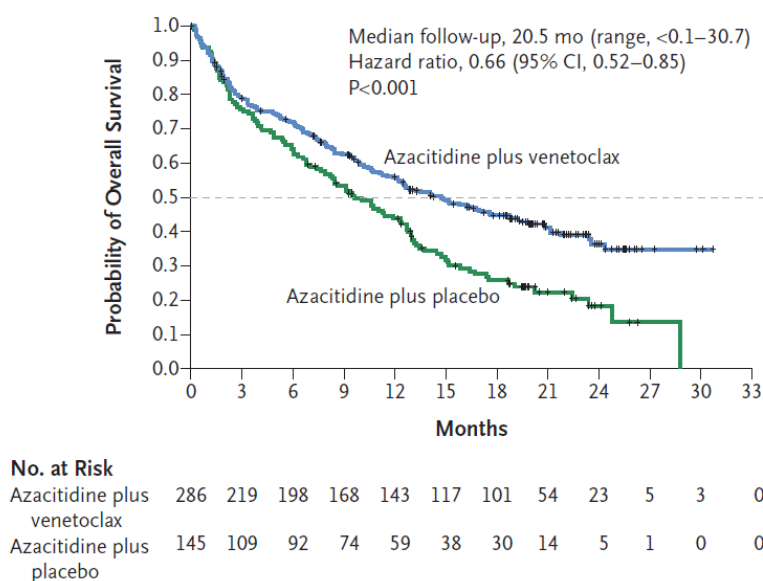
Under the terms of the agreement, AbbVie will pay I-Mab US\$180mn in an upfront payment to exclusively license lemzoparlimab, along with US\$20mn in a milestone payment based on the phase 1 results, for a total of US\$200mn. In addition, I-Mab will be eligible to receive up to US\$1.74bn in success-based milestone payments for lemzoparlimab, of which US\$840mn are based on clinical development and regulatory approval milestones, with the remainder based on commercial milestones (i.e. net sales). Upon commercialization of lemzoparlimab, AbbVie will also pay tiered royalties from low-to-mid teen percentages on global net sales outside of greater China.

With regards to the bispecific antibodies, AbbVie has a right of first negotiation to in-license two additional lemzoparlimab based bispecific antibodies discovered by I-Mab, both of which are now at preclinical stage. The potential value of such license of the two bispecific antibodies is a minimum US\$1bn upfront and milestone payments, indicating a minimum of US\$500mn each.

Going forward, I-Mab will work closely with AbbVie to facilitate clinical development of lemzoparlimab both globally and in China. We see potential significant synergies between I-Mab's lemzoparlimab and AbbVie's Venclexta (Venetoclax, a Bcl-2 inhibitor).

Venclexta, the global first-in-class Bcl-2 inhibitor, has demonstrated promising efficacy in AML and MDS. We believe the combination of Venclexta and lemzoparlimab could deliver better results than their monotherapies.

In Jun 2020, AbbVie published the results from the Phase 3 VIALE-A clinical study in patients with newly-diagnosed AML. Treatment with venetoclax plus azacitidine reduced the risk of death by 34% compared to azacitidine in combination with placebo ([HR]=0.66 [95% CI: 0.52-0.85], p<0.001). At a median follow-up of 20.5 months, the median overall survival was 14.7 months in the azacitidine + venetoclax group and 9.6 months in the control group. Additionally, 66.4% of patients treated with venetoclax plus azacitidine achieved CR+CRi versus 28.3% of patients treated with azacitidine plus placebo (p<0.001). CR+CRi is a composite score reflecting the complete remission (CR) and CR with incomplete hematologic recovery (CRi), which is an incomplete CR with blood counts not fully recovered.

Figure 1: OS of venetoclax+azacitidine vs azacytidine+placebo in treatment naïve AML

Source: NEJM, CMBIS

In Jun 2020, AbbVie updated the results of a phase 1b study Venetoclax in Combination with Azacitidine for the treatment of relapsed/refractory MDS. As of 31 Aug 2019, 38 patients were treated with Ven + Aza. Patients received a median of 8 cycles or prior treatment with an HMA and 63% (24/38) received either RBC or platelet transfusion within 8 weeks prior to first dose of Ven. Median follow-up time was 6.8 months. 37 patients were response evaluable. Complete remission (CR) + marrow CR (mCR) was 40%, observed in 15 patients (CR 3, mCR12). Of 13 patients who completed 4 cycles of Ven+Aza, 9 achieved CR/mCR. Median time to response for CR+mCR was 1.2 months. Overall, median PFS was 9.1 months and 12-month OS estimate was 65%. Among pts who obtained mCR, median PFS was 10.1 months and the 12-month estimate of OS was 78%.

Topline safety data proved the differentiation of lemozoparlimab

Lemozoparlimab is designed to minimize inherent binding to normal red blood cells while preserving its strong anti-tumor activity, a critical attribute in potentially differentiating lemozoparlimab from other antibodies of the same class currently in development.

I-Mab's is conducting clinical trials for lemozoparlimab in the US and China. For clinical development in US, I-Mab aims to first validate the clinical differentiation of lemozoparlimab as a single-agent in a phase 1 dose-escalation study where cancer patients were given lemozoparlimab from 1mg/kg to 30mg/kg. The study was recently completed. Topline results of this phase 1 clinical trial confirm possible differentiation of lemozoparlimab in drug safety and a more favorable pharmacokinetics profile in cancer patients. Results have shown that lemozoparlimab is well tolerated as a single agent at a dose range of up to 30 mg/kg without any priming dose. In all DLT-evaluable patients, no dose-limiting toxicities or severe hematologic adverse events were observed. Full data will be presented at an appropriate scientific conference later this year, probably at the SITC Annual Meeting this year.

The phase 1 study of lemozoparlimab in the US has expanded to the combination parts with PD-1 antibody for solid tumors and with CD20 antibody for relapsed or refractory lymphoma to evaluate the safety and early efficacy signals.

Regarding clinical development in China, I-Mab has focused on AML/MDS towards a potential product registration. I-Mab has initiated a Phase 1/2a clinical trial of TJC4 in China in patients with r/r AML/MDS (CXSL1900039; NCT04202003) with first patient dosed in Apr 2020. Results are expected in early 2021.

Worldwide, more than 15 drug candidates targeting CD47 are under clinical tests, including mAbs, fusion proteins and BsAbs. The most leading asset is Hu5F9-G4 (Magrolimab) developed by Forty Seven, a subsidiary of Gilead. Gilead is initiating a registrational Phase 3 trial to test magrolimab in MDS patients. Other anti-CD47 biological candidates are all in early phase of development. In China, six anti-CD47 biological candidates are in early clinical phase while another three candidates may start clinical studies soon.

However, almost all clinical trials with CD47 antibodies so far have shown significant hematologic adverse effects, likely due to inherent RBC-binding properties of generic CD47 antibodies. So far, the development of some CD47 targeting drug candidates were terminated, such as SRF231 by Surface Oncology, CC-90002 by Celgene.

Figure 2: Competition landscape in CD47 biological therapies

Product	Molecule	Company	US status	China status
Hu5F9-G4 (Magrolimab)	CD47 mAb	Forty Seven / Gilead	Phase 3 in 1L higher-risk MDS (+ Azacitidine); Phase 1b in AML (+ Azacitidine); Phase 1/2 in DLBCL (+ Rituximab); Phase 1/2 in Colorectal cancer (+ Cetuximab); Phase 1 in Ovarian cancer (+ Avelumab)	N/A
TTI-621	CD47 WT SIRPα fusion protein	Trillium Therapeutics	Phase 1	N/A
TTI-662	CD47 WT SIRPα fusion protein	Trillium Therapeutics	Phase 1	N/A
ALX148	CD47 high affinity SIRPα fusion protein	ALX Oncology	Phase 1/2 in higher risk MDS (+ Azacitidine)	N/A
AO-176	CD47 mAb	Arch Oncology	Phase 1/2 in r/r MM	N/A
TG-1801 (NI-1701)	CD47/CD19 BsAb	TG Therapeutics / Novimmune	Phase 1	N/A
IBI188	CD47 mAb	Innovent	Phase 1	Phase 1b/3 in 1L MDS; Phase 1b/2 in r/r AML
SHR1603	CD47 mAb	Hengrui Medicine	N/A	Phase 1
IMM01	CD47 mAb-Trap fusion protein	Immune Onco	N/A	Phase 1
TJC4 (TJ011133)	CD47 mAb	I-Mab	Phase 1	Phase 1/2a in r/r AML
HX009	PD-1/CD47 BsAb	HanX Biopharma	N/A	Phase 1
IMM0306	CD47/CD20 BsAb	Immune Onco	N/A	Phase 1
IBI322	CD47/PD-L1 BsAb	Innovent	N/A	IND approval
ZL-1201	CD47 mAb	ZaiLab	Phase 1	IND approval
AK117	CD47 mAb	Akeso Biopharma	N/A	IND filing

Source: Insight, Clinicaltrials.gov, CMBIS

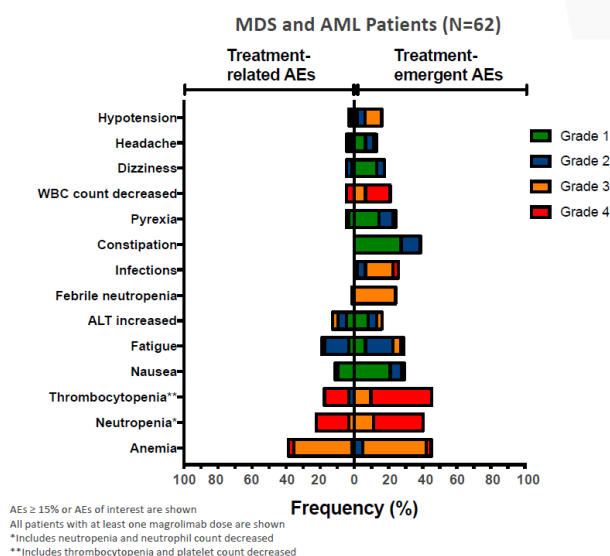
In Apr 2020, Gilead (GILD US, NR) completed its acquisition of Forty Seven at a consideration of US\$4.9bn. Pursuant to the acquisition, Gilead gained magrolimab, a potential first-in-class anti-CD47 mAb. Magrolimab is initially being studied in patients with myelodysplastic syndrome (MDS) and acute myeloid leukemia (AML), and additional studies are ongoing in non-Hodgkin lymphoma (NHL) and solid tumors. Magrolimab has been granted Fast Track designation by the FDA for the treatment of MDS and AML, and for the treatment of relapsed or refractory diffuse large B-cell lymphoma (DLBCL) and follicular lymphoma (FL), two forms of B-cell non-Hodgkin's lymphoma. Gilead is initiating a registrational Phase 3 trial (ENHANCE trial) to evaluate the combination of magrolimab and azacytidine compared to azacytidine alone in higher-risk MDS patients, with a potential BLA filing expected in 4Q21E.

At the 2020 ASCO meeting in May 2020, Gilead announced the updated results from a Phase 1b trial of magrolimab in combination with azacitidine in previously untreated patients with higher-risk MDS and previously untreated patients with AML who are ineligible for intensive chemotherapy, including patients with TP53-mutant AML, a high unmet need population (NCT03248479).

At the time of the data cut-off, 68 patients had been treated with magrolimab plus azacitidine, including 39 patients with previously untreated higher-risk MDS and 29 patients with previously untreated AML. Of 33 MDS patients who were evaluable for efficacy, 91% (n=30/33) achieved an objective response (response assessments per 2006 IWG MDS criteria) including 42% (n=14/33) with a complete response (CR). Responses to magrolimab and azacitidine also deepened over time, as the CR rate with at least six months of follow-up was 56% in MDS patients. In AML, 64% (n=16/25) of patients evaluable for efficacy achieved an objective response (response assessments per 2017 AML ELN criteria), including 56% (n=14/25) with a CR or a CR with incomplete blood count recovery (CRi). Notably in TP53-mutant AML (n=12), a treatment refractory and poor prognosis population, 75% achieved a CR or CRi. TP53 mutations are often associated with a poor prognosis and patients with TP53 mutant disease are refractory to existing therapies.

Magrolimab has adopted a priming dosing strategy to mitigate on-target anemia by CD47 blockade, i.e. an initial priming dose (1mg/kg) ramping up to 30 mg/kg by week 2 and then maintaining at 30 mg/kg per week. Even with a priming dosing strategy to mitigate anemia, magrolimab still reported approximately 40% on-target anemia in MDS and AML patients. In the above-mentioned Phase 1b trial, common all-grade treatment-related adverse events (AEs) among 68 patients with MDS or AML were anemia (38%), fatigue (21%), neutropenia (19%), thrombocytopenia (18%) and infusion reaction (16%). Treatment-related febrile neutropenia occurred in 1.5% of patients. One patient (1.5%) discontinued the trial due to a treatment-related AE.

Figure 3: AEs of magrolimab + azacitidine in MDS and AML patients (ASH 2019)



Source: Forty Seven, ASH 2019, CMBIS

Figure 4: Summary of clinical data of leading CD47-SIRPα targeting therapies

	Drug	Magrolimab (Hu-5FG)	Magrolimab (Hu-5FG)	Magrolimab (Hu-5FG)	Magrolimab (Hu-5FG)	Magrolimab (Hu-5FG)	TTI-621	TTI-621	TTI-621	TTI-621	ALX-148	ALX-148	ALX-148
	Target	CD47	CD47	CD47	CD47	CD47	SIRPα	SIRPα	SIRPα	SIRPα	SIRPα	SIRPα	SIRPα
	Company	Forty Seven	Forty Seven	Forty Seven	Forty Seven	Forty Seven	Trillium Therapeutics	Trillium Therapeutics	Trillium Therapeutics	Trillium Therapeutics	ALX Oncology	ALX Oncology	ALX Oncology
	Trial ID	NCT03248479	NCT03248479	NCT02953509	NCT02953509	NCT03248479	NCT02663518	NCT02663518	NCT02663518	NCT02663518	NCT03013218	NCT03013218	NCT03013218
	Phase	1b	1b	1b/2	1b/2	1b	1	1	1	1	1b	1b	1b
	Treatment	+Azacitidine	+Azacitidine	+Rituximab	+Rituximab	mono	mono	mono	mono	+Rituximab	+Rituximab	+Keytruda	+Herceptin
	Indication	1L MDS	1L AML	3L+ DLBCL	2L+ FL or MZL	r/r-AML/MDS	r/r-CTCL	r/r-PTCL	r/r-DLBCL	r/r-DLBCL	3L+ ALL	2L SCCHN	r/r-Her2+Gastric/GE J
	No. of patients	33	25	59	38 (35+3)	10	42	22	7	25	33	20	19
	ORR (%)	91%	64% (75% (9/12) for TP53m)	36%	61%	10%	19%	18%	29%	24%	45% (15/33)	20% (4/20)	21.1% (4/19)
	CR	42%	40% (42% (5/12) for TP53m)	15%	24%	0%	2%	9%	14%	4%			
	CRi		16% (33% (4/12) for TP53m)										
	PR	3%	4%	20%	37%	10%	17%	9%	14%	20%			
	marrow CR / MLFS	24% (4/8 with HI)	4%										
	Heamatologic Improvement (HI)	21%											
	SD	9%	32%	12%	24%	70%							
	PD	0%	4%	17%	16%	10%							
	Anemia	38%		29%		20%		13% (≥G3=8%)			6.1% (≥G3=3.0%)	9.6% (≥G3=1.9%)	6.7% (≥G3=0%)
	Fatigue	21%						15% (≥G3=0%)			9.1% (≥G3=0%)	11.5% (≥G3=0%)	30.0% (≥G3=0%)
	Neutropenia	19%		19%		0%		8% (≥G3=7%)			6.1% (≥G3=6.1%)	3.8% (≥G3=1.9%)	6.7% (≥G3=6.7%)
	Thrombocytopenia	18%		14%		0%		28% (≥G3=21%)					
	Infusion reaction	16%						41% (≥G3=2%)			0%	7.7% (≥G3=0%)	0%

Source: ASH 2019, EHA 2019, ASCO2019, ALXOncology prospectus, company data, CMBIS

Completion of US\$418mn private placement

On the same date, I-Mab also announced that it has entered into definitive subscription agreements with a consortium of institutional investors to raise approximately US\$418mn through a private placement. The consortium is led by Hillhouse Capital Group (Hillhouse), with significant participation by GIC, and also Avidity Partners, OrbiMed, Octagon Capital Advisors, Invus, Lake Bleu Capital, Perceptive Advisors, Cormorant Asset Management, Sphera Healthcare and Alyeska Investment Group. Hillhouse is entitled to nominate one representative to I-Mab's Board of Directors.

The private placement comprises (1) the sale to the Investors of approximately US\$418mn of the 29,133,502 ordinary shares (equivalent to 12,666,740 ADSs) at US\$33 per ADS, representing a 2.9% premium to the 30-day VWAP; and (2) warrants to subscribe for an aggregate of 5,341,267 ordinary shares (equivalent to 2,322,290 ADSs) at an exercise price equivalent to US\$45 per ADS, representing a 40.3% premium to the 30-day VWAP, which may further increase the proceeds of approximately US\$104.5mn if the warrants are fully exercised. The warrants will remain exercisable at the election of the Investors within 12 months after the closing of the private placement.

As of 30 Jun 2020, I-Mab had cash, cash equivalents, restricted cash and short-term investments of RMB1.6bn (US\$221mn). Upon the completion of the US\$418mn private placement and receiving the US\$200mn initial payment from AbbVie, I-Mab will have more than US\$800mn cash on hand, providing sufficient funding for future R&D investments.

Upgrade DCF-based TP to US\$52.57

Given the recent progresses such as the release of topline safety data of TJC4 (lemzoparlimab), global partnership with AbbVie on lemzoparlimab and the completion of private placement, we revised our DCF model and upgraded our TP from US\$41.30 to US\$52.57 based on 15-year risk-adjusted DCF model (WACC: 10.6%, terminal growth rate: 3.0%).

Figure 5: 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	(674)	(1,157)	(1,386)	2,641	1,202	1,605	2,445	2,893	3,201	3,588	3,966	4,357	4,771	5,145	5,609
Tax rate	0%	0%	0%	15%	15%	15%	15%	15%	15%	15%	15%	15%	15%	15%	15%
EBIT*(1-tax rate)	(674)	(1,157)	(1,386)	2,245	1,022	1,364	2,078	2,459	2,721	3,050	3,371	3,703	4,056	4,374	4,768
+ D&A	35	46	55	62	69	74	78	82	85	87	89	91	93	94	95
- Change in working capital	(579)	205	72	(352)	(307)	(302)	(204)	(165)	(59)	(106)	(107)	(101)	(102)	(103)	(105)
- Capx	(100)	(100)	(100)	(100)	(100)	(100)	(100)	(100)	(100)	(100)	(100)	(100)	(100)	(100)	(100)
FCFF	(1,318)	(1,006)	(1,360)	1,855	683	1,036	1,852	2,276	2,646	2,932	3,254	3,593	3,946	4,264	4,658
Terminal value															63,145
FCF + Terminal value	(1,318)	(1,006)	(1,360)	1,855	683	1,036	1,852	2,276	2,646	2,932	3,254	3,593	3,946	4,264	67,803
Present value of enterprise (RMB mn)	22,489														
Net debt (RMB mn)	(3,453)														
Equity value (RMB mn)	25,942														
Equity value (US\$ mn)	3,706														
No. of ADS	70,495,716														
DCF per share (US\$)	52.57														
Terminal growth rate	3.0%														
WACC	10.60%														
Cost of Equity	13.5%														
Cost of Debt	4.5%														
Equity Beta	1.0														
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 6: Sensitivity analysis (US\$)

		WACC				
		9.60%	10.10%	10.60%	11.10%	11.60%
Terminal growth rate	2.0%	58.47	53.43	49.04	45.19	41.80
	2.5%	60.90	55.43	50.70	46.58	42.96
	3.0%	63.69	57.70	52.57	48.13	44.26
	3.5%	66.94	60.32	54.71	49.89	45.72
	4.0%	70.78	63.38	57.17	51.89	47.37

Source: Company data, CMBIS estimates

Financial Statements

Income statement

YE 31 Dec (RMB mn)	FY18A	FY19A	FY20E	FY21E	FY22E
Revenue	54	30	1,400	1,533	806
Cost of sales	0	0	0	(307)	(153)
Gross profit	54	30	1,400	1,226	653
Administrative expenses	(66)	(655)	(300)	(345)	(397)
R&D expenses	(426)	(840)	(900)	(1,000)	(1,050)
Selling expenses	0	0	0	(613)	(403)
Fair value change of warrants	61	6	0	0	0
Operating profit	(377)	(1,459)	200	(732)	(1,197)
Finance costs, net	(7)	28	40	58	40
Other income (expenses), net	(17)	(20)	0	0	0
Pre-tax profit	(401)	(1,452)	240	(674)	(1,157)
Income tax	(2)	0	(36)	0	0
Minority interests	0	0	0	0	0
Net profit (Net loss)	(403)	(1,452)	204	(674)	(1,157)

Cash flow summary

YE 31 Dec (RMB mn)	FY18A	FY19A	FY20E	FY21E	FY22E
Profit before tax	(401)	(1,452)	240	(674)	(1,157)
Depreciation and amortization, etc.	7	16	22	35	46
Change in working	148	185	(74)	(579)	205
Tax paid	(2)	0	(36)	0	0
Others	(33)	384	0	0	0
Net cash from operating activities	(281)	(868)	152	(1,218)	(906)
Capex	(14)	(12)	(100)	(100)	(100)
Net proceeds from disposal of short-term	0	(32)	0	0	0
Other investing activities	24	257	0	0	0
Net cash from investing activities	10	212	(100)	(100)	(100)
Net proceeds from	1,307	184	3,652	0	0
Net bank borrowing	(19)	(30)	0	0	0
Proceeds from issuance of convertible promissory	60	0	0	0	0
Other financing activities	132	(1)	0	0	0
Net cash from financing activities	1,480	153	3,652	0	0
FX changes	60	15	0	0	0
Net change in cash	1,208	(503)	3,704	(1,318)	(1,006)
Cash at the beginning of	413	1,681	1,193	4,897	3,579
Cash at the end of the	1,681	1,193	4,897	3,579	2,573

Balance sheet

YE 31 Dec (RMB mn)	FY18A	FY19A	FY20E	FY21E	FY22E
Non-current assets	339	376	455	520	574
PP&E	28	30	108	174	228
Operating lease right of use	0	16	16	16	16
Intangible assets	149	149	149	149	149
Goodwill	163	163	163	163	163
Other non-current assets	0	18	18	18	18
Current assets	2,037	1,361	5,065	4,226	2,990
Inventories	0	0	0	101	50
Trade and bills receivables	0	0	0	378	199
Prepayments, other receivables	89	136	136	136	136
Other financial assets	256	0	0	0	0
Cash and bank balances	1,588	1,137	4,841	3,523	2,517
Current liabilities	346	588	515	415	390
Short-term borrowings	80	50	50	50	50
Advance from customers	14	0	0	0	0
Other payables and accruals	68	274	200	100	76
Operating lease liabilities	0	7	7	7	7
Other current liabilities	184	258	258	258	258
Non-current liabilities	70	80	80	80	80
Convertible promissory notes	67	68	68	68	68
Onshore convertible loans	0	7	7	7	7
Deferred subsidy income	3	4	4	4	4
Total net assets	1,960	1,069	4,925	4,251	3,094
Minority interest	0	0	0	0	0
Shareholders' equity	1,960	1,069	4,925	4,251	3,094

Key ratios

YE 31 Dec	FY18A	FY19A	FY20E	FY21E	FY22E
Profit & loss ratios (%)					
Gross margin	100	100	100	80	81
EBITDA margin	N/A	N/A	N/A	(45.47)	(142.8)
Net margin	N/A	N/A	N/A	(43.98)	(143.5)
Effective tax rate (%)	N/A	N/A	N/A	N/A	N/A
Balance sheet ratios					
Current ratio (x)	6	2	10	10	8
Trade receivables	N/A	N/A	N/A	90	90
Trade payables turnover	N/A	N/A	N/A	180	180
Total debt to asset ratio	17	38	11	10	13
Returns (%)					
ROE	(21)	(136)	4	(16)	(37)
ROA	(17)	(84)	4	(14)	(32)
Per share data					
EPS (RMB)	N/A	N/A	2.9	(9.6)	(16.4)
DPS (RMB)	0.0	0.0	0.0	0.0	0.0
BVPS (RMB)	N/A	N/A	69.9	60.3	43.9

Source: Company data, CMBIS estimates

Disclosures & Disclaimers

Analyst Certification

The research analyst who is primary responsible for the content of this research report, in whole or in part, certifies that with respect to the securities or issuer that the analyst covered in this report: (1) all of the views expressed accurately reflect his or her personal views about the subject securities or issuer; and (2) no part of his or her compensation was, is, or will be, directly or indirectly, related to the specific views expressed by that analyst in this report.

Besides, the analyst confirms that neither the analyst nor his/her associates (as defined in the code of conduct issued by The Hong Kong Securities and Futures Commission) (1) have dealt in or traded in the stock(s) covered in this research report within 30 calendar days prior to the date of issue of this report; (2) will deal in or trade in the stock(s) covered in this research report 3 business days after the date of issue of this report; (3) serve as an officer of any of the Hong Kong listed companies covered in this report; and (4) have any financial interests in the Hong Kong listed companies covered in this report.

CMBIS Ratings

BUY	: Stock with potential return of over 15% over next 12 months
HOLD	: Stock with potential return of +15% to -10% over next 12 months
SELL	: Stock with potential loss of over 10% over next 12 months
NOT RATED	: Stock is not rated by CMBIS
OUTPERFORM	: Industry expected to outperform the relevant broad market benchmark over next 12 months
MARKET-PERFORM	: Industry expected to perform in-line with the relevant broad market benchmark over next 12 months
UNDERPERFORM	: Industry expected to underperform the relevant broad market benchmark over next 12 months

CMB International Securities Limited

Address: 45/F, Champion Tower, 3 Garden Road, Hong Kong, Tel: (852) 3900 0888 Fax: (852) 3900 0800

CMB International Securities Limited ("CMBIS") is a wholly owned subsidiary of CMB International Capital Corporation Limited (a wholly owned subsidiary of China Merchants Bank)

Important Disclosures

There are risks involved in transacting in any securities. The information contained in this report may not be suitable for the purposes of all investors. CMBIS does not provide individually tailored investment advice. This report has been prepared without regard to the individual investment objectives, financial position or special requirements. Past performance has no indication of future performance, and actual events may differ materially from that which is contained in the report. The value of, and returns from, any investments are uncertain and are not guaranteed and may fluctuate as a result of their dependence on the performance of underlying assets or other variable market factors. CMBIS recommends that investors should independently evaluate particular investments and strategies, and encourages investors to consult with a professional financial advisor in order to make their own investment decisions.

This report or any information contained herein, have been prepared by the CMBIS, solely for the purpose of supplying information to the clients of CMBIS or its affiliate(s) to whom it is distributed. This report is not and should not be construed as an offer or solicitation to buy or sell any security or any interest in securities or enter into any transaction. Neither CMBIS nor any of its affiliates, shareholders, agents, consultants, directors, officers or employees shall be liable for any loss, damage or expense whatsoever, whether direct or consequential, incurred in relying on the information contained in this report. Anyone making use of the information contained in this report does so entirely at their own risk.

The information and contents contained in this report are based on the analyses and interpretations of information believed to be publicly available and reliable. CMBIS has exerted every effort in its capacity to ensure, but not to guarantee, their accuracy, completeness, timeliness or correctness. CMBIS provides the information, advices and forecasts on an "AS IS" basis. The information and contents are subject to change without notice. CMBIS may issue other publications having information and/or conclusions different from this report. These publications reflect different assumption, point-of-view and analytical methods when compiling. CMBIS may make investment decisions or take proprietary positions that are inconsistent with the recommendations or views in this report.

CMBIS may have a position, make markets or act as principal or engage in transactions in securities of companies referred to in this report for itself and/or on behalf of its clients from time to time. Investors should assume that CMBIS does or seeks to have investment banking or other business relationships with the companies in this report. As a result, recipients should be aware that CMBIS may have a conflict of interest that could affect the objectivity of this report and CMBIS will not assume any responsibility in respect thereof. This report is for the use of intended recipients only and this publication, may not be reproduced, reprinted, sold, redistributed or published in whole or in part for any purpose without prior written consent of CMBIS.

Additional information on recommended securities is available upon request.

For recipients of this document in the United Kingdom

This report has been provided only to persons (I) falling within Article 19(5) of the Financial Services and Markets Act 2000 (Financial Promotion) Order 2005 (as amended from time to time) ("The Order") or (II) are persons falling within Article 49(2) (a) to (d) ("High Net Worth Companies, Unincorporated Associations, etc.") of the Order, and may not be provided to any other person without the prior written consent of CMBIS.

For recipients of this document in the United States

CMBIS is not a registered broker-dealer in the United States. As a result, CMBIS is not subject to U.S. rules regarding the preparation of research reports and the independence of research analysts. The research analyst who is primary responsible for the content of this research report is not registered or qualified as a research analyst with the Financial Industry Regulatory Authority ("FINRA"). The analyst is not subject to applicable restrictions under FINRA Rules intended to ensure that the analyst is not affected by potential conflicts of interest that could bear upon the reliability of the research report. This report is intended for distribution in the United States solely to "major US institutional investors", as defined in Rule 15a-6 under the US, Securities Exchange Act of 1934, as amended, and may not be furnished to any other person in the United States. Each major US institutional investor that receives a copy of this report by its acceptance hereof represents and agrees that it shall not distribute or provide this report to any other person. Any U.S. recipient of this report wishing to effect any transaction to buy or sell securities based on the information provided in this report should do so only through a U.S.-registered broker-dealer.

For recipients of this document in Singapore

This report is distributed in Singapore by CMBI (Singapore) Pte. Limited (CMBISG) (Company Regn. No. 201731928D), an Exempt Financial Adviser as defined in the Financial Advisers Act (Cap. 110) of Singapore and regulated by the Monetary Authority of Singapore. CMBISG may distribute reports produced by its respective foreign entities, affiliates or other foreign research houses pursuant to an arrangement under Regulation 32C of the Financial Advisers Regulations. Where the report is distributed in Singapore to a person who is not an Accredited Investor, Expert Investor or an Institutional Investor, as defined in the Securities and Futures Act (Cap. 289) of Singapore, CMBISG accepts legal responsibility for the contents of the report to such persons only to the extent required by law. Singapore recipients should contact CMBISG at +65 6350 4400 for matters arising from, or in connection with the report.