

# Biocytogen (2315 HK)

## 2022 preview: Fruitful BD deals

We expect the Company's FY22E revenue to grow +50% YoY to RMB533mn, compared to +40% YoY growth in FY21. We forecast the Company's pre-clinical CRO service business to realize a +50% YoY revenue growth in FY22E, compared to +26% YoY growth in FY21, mainly driven by the increasing demands from overseas partners who were less impacted by COVID-19 restrictions in 2022. We forecast the antibody development business to maintain strong revenue growth in 2022, with a YoY growth rate of +51% in FY22E vs a +116% YoY growth in FY21 driven by the continuous announcements of out-licensing and co-development deals. The slower YoY revenue growth in antibody development in FY22E compared to FY21 was mainly due to the impacts of COVID-19 interruptions and increasing cost of capital for Biocytogen's potential partners, in our forecast. We expect the Company's FY22E net loss at ~RMB567mn. In FY23E/ 24E, we estimate the Company's revenue to grow +47%/ +40% YoY, and net losses to reach RMB357mn/ 204mn, respectively. We expect the Company to turn profitable in 2025E.

■ **Fruitful BD deals fueled by Project Integrum.** As of Jun 2022, Biocytogen has reached 28 co-development deals with various biotech/biopharma companies (11 achieved in 1H22) under the Project Integrum. In 2H22, the Company reached more co-development deals, including partnerships with ADC Therapeutics, FinelImmune, Hansoh, ISU, Syncromune, etc. Biocytogen launched the Project Integrum in Mar 2020, based on its RenMice platform and in vivo efficacy screening methodology. The Project targets to concurrently generate and screen antibodies against over 1,000 potential antibody drug targets. As of Aug 2022, the Project has completed 980+ target knock-outs, including 280+ targets entering antibody immune stage and 40+ targets entering the molecular screening stage. The Company could complete the antibody molecule selection for 200-300 potential targets per year with its development capacity. We expect the Project Integrum to continuously be a deal engine to drive the Company's future revenue growth.

■ **To unlock the value of in-house developed assets.** Recently, Biocytogen out-licensed the China right of YH008 (PD-1/CD40) to Chipscreen (688321 CH) with a total upfront and milestone payment of up to RMB596mn. The Company has rich in-house developed clinical/pre-clinical stage assets with out-license opportunities, including YH003 (CD40 mAb), YH008 (overseas rights), YH006 (CTLA-4/OX40), YH012 (bsAb ADC), and YH013 (bsAb ADC). YH008 (PD-1/CD40) has entered Ph1 trial in the US and China, which may facilitate the ex-China deal discussions upon the data release. YH003 is being assessed in a Ph2 MRCT trial combo with PD-1 for the treatment of melanoma and pancreatic ductal adenocarcinoma, with the enrolment in the US, Australia and China ongoing smoothly. YH001 (CTLA-4) has entered Ph2 stage assessment by Tracoon in the US for sarcoma treatment, and Biocytogen is conducting a Ph2 MRCT trial itself for NSCLC and HCC.

■ **Maintain BUY.** We slightly revised our TP to HK\$40.51 from HK\$43.85 based on a 14-year DCF model (WACC: 10.7%, terminal growth rate: 2.0%).

### Earnings Summary

(YE 31 Dec)	FY20A	FY21A	FY22E	FY23E	FY24E
Revenue (RMB mn)	254	355	533	782	1,098
YoY growth (%)	49.3	39.8	50.2	46.9	40.3
Net profit (RMB mn)	(428.1)	(545.6)	(566.5)	(357.3)	(203.5)
EPS (Reported) (RMB)	na	na	(1.42)	(0.89)	(0.51)
ROE (%)	(89.8)	(40.3)	(46.8)	(36.1)	(28.7)
R&D expenses (RMB mn)	(276)	(558)	(656)	(626)	(659)

Source: Company data, Bloomberg, CMBIGM estimates

### BUY (Maintain)

<b>Target Price</b>	<b>HK\$40.51</b>
(Previous TP)	HK\$43.85)
<b>Up/Downside</b>	<b>62.1%</b>
<b>Current Price</b>	<b>HK\$25.00</b>

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### Stock Data

Mkt Cap (HK\$ mn)	9,985.0
Avg 3 mths t/o (HK\$ mn)	25.6
52w High/Low (HK\$)	23.5/28.8
Total Issued Shares (mn)	399.4
Source: FactSet	

### Shareholding Structure

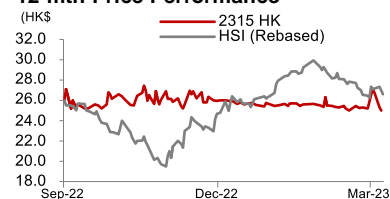
Management	27.5%
SDIC Shanghai	18.3%
Source: HKEx	

### Share Performance

	Absolute	Relative
1-mth	-1.2%	4.9%
3-mth	-3.7%	-6.5%
6-mth	-1.4%	-7.3%

Source: FactSet

### 12-mth Price Performance



Source: FactSet

### Related report:

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**Figure 1: Risk-adjusted DCF valuation**

DCF Valuation (RMB mn)	2022E	2023E	2024E	2025E	2026E	2027E	2028E	2029E	2030E	2031E	2032E	2033E	2034E	2035E
EBIT	-547	-326	-153	151	517	1,044	1,477	1,949	2,446	2,910	3,257	3,605	3,926	4,244
Tax rate	0.0%	0.0%	0.0%	15.0%	15.0%	15.0%	15.0%	15.0%	15.0%	15.0%	15.0%	15.0%	15.0%	15.0%
EBIT*(1-tax rate)	-547	-326	-153	128	439	887	1,256	1,657	2,079	2,474	2,769	3,064	3,337	3,608
+ D&A	71	76	82	88	94	99	104	109	113	118	122	126	130	133
- Change in working capital	-99	-70	-87	-127	-207	-194	-242	-229	-246	-200	-152	-145	-123	-116
- Capex	-200	-200	-200	-200	-200	-200	-200	-200	-200	-200	-200	-200	-200	-200
<b>FCFF</b>	<b>-775</b>	<b>-520</b>	<b>-358</b>	<b>-111</b>	<b>126</b>	<b>592</b>	<b>917</b>	<b>1,336</b>	<b>1,747</b>	<b>2,191</b>	<b>2,538</b>	<b>2,845</b>	<b>3,144</b>	<b>3,425</b>
<b>Terminal value</b>														<b>40,035</b>
Terminal value (RMB mn)	9,616													
<b>Total PV (RMB mn)</b>	<b>14,407</b>													
Net debt (RMB mn)	163													
Minority interest (RMB mn)	5													
<b>Equity value (RMB mn)</b>	<b>14,240</b>													
# of shares (mn)	399													
Price per share (RMB per share)	35.7													
<b>Price per share (HK\$ per share)</b>	<b>40.51</b>													
<b>Terminal growth rate</b>	<b>2.0%</b>													
<b>WACC</b>	<b>10.7%</b>													
Cost of Equity	13.5%													
Cost of Debt	5.0%													
Equity Beta	1.00													
Risk Free Rate	3.00%													
Market Risk Premium	10.50%													
Target Debt to Asset ratio	30.0%													
Effective Corporate Tax Rate	15.0%													

Source: CMBIGM estimates

**Figure 2: Sensitivity analysis (HK\$)**

		WACC				
		9.7%	10.2%	10.7%	11.2%	11.7%
Terminal growth rate	3.0%	55.58	49.54	44.36	39.88	35.98
	2.5%	52.58	47.08	42.32	38.18	34.54
	2.0%	49.96	44.91	<b>40.51</b>	36.66	33.26
	1.5%	47.67	43.00	38.90	35.30	32.10
	1.0%	45.64	41.29	37.46	34.07	31.05

Source: CMBIGM estimates

**Figure 3: CMBIGM estimates revision**

RMB mn	New			Old			Diff (%)		
	FY22E	FY23E	FY24E	FY22E	FY23E	FY24E	FY22E	FY23E	FY24E
Revenue	533	782	1,098	613	879	1,253	-13%	-11%	-12%
Gross Profit	389	583	828	444	647	930	-13%	-10%	-11%
Operating Profit	(541)	(323)	(150)	(435)	(253)	(43)	NA	NA	NA
Net profit	(567)	(357)	(204)	(460)	(287)	(96)	NA	NA	NA
EPS (RMB)	(1.42)	(0.89)	(0.51)	(1.15)	(0.72)	(0.24)	NA	NA	NA
Gross Margin	72.97%	74.49%	75.40%	72.50%	73.65%	74.25%	+0.47 ppt	+0.84 ppt	+1.15 ppt

Source: Company data, CMBIGM estimates

**Figure 4: CMBIGM estimates vs consensus**

RMB mn	CMBIGM			Consensus			Diff (%)		
	FY22E	FY23E	FY24E	FY22E	FY23E	FY24E	FY22E	FY23E	FY24E
Revenue	533	782	1,098	584	877	1,233	-9%	-11%	-11%
Gross Profit	389	583	828	413	633	898	-5%	-7%	-7%
Operating Profit	(541)	(323)	(150)	(454)	(276)	(43)	NA	NA	NA
Net profit	(567)	(357)	(204)	(442)	(272)	(59)	NA	NA	NA
EPS (RMB)	(1.42)	(0.89)	(0.51)	(1.12)	(0.68)	(0.12)	NA	NA	NA
Gross Margin	72.97%	74.49%	75.40%	70.71%	72.18%	72.85%	+2.27 ppt	+2.31 ppt	+2.56 ppt

Source: Company data, CMBIGM estimates

## Financial Summary

INCOME STATEMENT	2019A	2020A	2021A	2022E	2023E	2024E
YE 31 Dec (RMB mn)						
Revenue	170	254	355	533	782	1,098
Cost of goods sold	(73)	(87)	(107)	(144)	(200)	(270)
Gross profit	97	167	247	389	583	828
Operating expenses	(318)	(525)	(753)	(930)	(906)	(978)
Selling expense	(29)	(32)	(42)	(53)	(76)	(104)
Admin expense	(140)	(245)	(188)	(240)	(219)	(230)
R&D expense	(159)	(276)	(558)	(656)	(626)	(659)
Others	(2)	19	10	0	0	0
Operating profit	(221)	(358)	(506)	(541)	(323)	(150)
Other expense	(85)	(118)	(39)	(25)	(34)	(53)
Other gains/(losses)	11	9	26	19	15	16
Share of (losses)/profits of associates/JV	0	0	(0)	0	0	0
Pre-tax profit	(306)	(477)	(546)	(567)	(357)	(204)
Income tax	0	0	0	0	0	0
After tax profit	(306)	(477)	(546)	(567)	(357)	(204)
Minority interest	(43)	(49)	(0)	0	0	0
Net profit	(263)	(428)	(546)	(567)	(357)	(204)

BALANCE SHEET	2019A	2020A	2021A	2022E	2023E	2024E
YE 31 Dec (RMB mn)						
Current assets	672	1,148	874	641	716	964
Cash & equivalents	246	750	466	156	105	196
Account receivables	58	115	183	255	373	520
Inventories	3	8	15	20	28	38
Other current assets	344	254	168	168	168	168
Contract obtaining costs	20	21	42	42	42	42
Non-current assets	551	1,179	1,429	1,557	1,681	1,799
PP&E	533	1,136	1,391	1,521	1,645	1,763
Intangibles	2	2	6	4	4	4
Other non-current assets	15	41	32	32	32	32
Total assets	1,222	2,327	2,303	2,199	2,397	2,763
Current liabilities	1,410	328	447	426	481	551
Account payables	18	88	102	118	164	222
Tax payable	2	14	27	27	27	27
Other current liabilities	1,262	0	0	0	0	0
Lease liabilities	90	179	256	256	256	256
Contract liabilities	38	48	62	25	35	47
Non-current liabilities	318	540	604	604	1,104	1,604
Long-term borrowings	0	0	0	0	500	1,000
Deferred income	91	90	93	93	93	93
Other non-current liabilities	227	450	511	511	511	511
Total liabilities	1,728	868	1,051	1,030	1,586	2,156
Share capital	37	360	375	375	375	375
Other reserves	(542)	1,098	877	794	436	233
Total shareholders equity	(505)	1,458	1,252	1,169	811	608
Total equity and liabilities	1,222	2,327	2,303	2,199	2,397	2,763

<b>CASH FLOW</b>	<b>2019A</b>	<b>2020A</b>	<b>2021A</b>	<b>2022E</b>	<b>2023E</b>	<b>2024E</b>
<b>YE 31 Dec (RMB mn)</b>						
<b>Operating</b>						
Profit before taxation	(306)	(477)	(546)	(567)	(357)	(204)
Depreciation & amortization	28	43	128	71	0	82
Tax paid	0	0	0	0	0	0
Change in working capital	79	(29)	(10)	(99)	(70)	(87)
Others	162	237	62	25	110	53
<b>Net cash from operations</b>	<b>(37)</b>	<b>(225)</b>	<b>(366)</b>	<b>(568)</b>	<b>(317)</b>	<b>(155)</b>
<b>Investing</b>						
Capital expenditure	(153)	(296)	(199)	(200)	(200)	(200)
Net proceeds from disposal of short-term investments	59	1,393	650	0	0	0
Others	(310)	(1,285)	(535)	(25)	(34)	(53)
<b>Net cash from investing</b>	<b>(404)</b>	<b>(188)</b>	<b>(84)</b>	<b>(225)</b>	<b>(234)</b>	<b>(253)</b>
<b>Financing</b>						
Dividend paid	0	0	0	0	0	0
Proceeds from share issues	500	948	311	483	0	0
Others	(11)	(80)	(92)	0	500	500
<b>Net cash from financing</b>	<b>490</b>	<b>868</b>	<b>219</b>	<b>483</b>	<b>500</b>	<b>500</b>
<b>Net change in cash</b>						
Cash at the beginning of the year	(1)	(4)	697	466	156	105
Exchange difference	199	246	(0)	0	0	0
<b>Cash at the end of the year</b>	<b>246</b>	<b>697</b>	<b>466</b>	<b>156</b>	<b>105</b>	<b>196</b>
<b>GROWTH</b>	<b>2019A</b>	<b>2020A</b>	<b>2021A</b>	<b>2022E</b>	<b>2023E</b>	<b>2024E</b>
<b>YE 31 Dec</b>						
Revenue	na	49.3%	39.8%	50.2%	46.9%	40.3%
Gross profit	na	71.9%	48.2%	57.1%	49.9%	42.0%
<b>PROFITABILITY</b>	<b>2019A</b>	<b>2020A</b>	<b>2021A</b>	<b>2022E</b>	<b>2023E</b>	<b>2024E</b>
<b>YE 31 Dec</b>						
Gross profit margin	57.2%	65.9%	69.8%	73.0%	74.5%	75.4%
Operating margin	(130.2%)	(141.4%)	(142.7%)	(101.6%)	(41.3%)	(13.7%)
Return on equity (ROE)	na	(89.8%)	(40.3%)	(46.8%)	(36.1%)	(28.7%)
<b>GEARING/LIQUIDITY/ACTIVITIES</b>	<b>2019A</b>	<b>2020A</b>	<b>2021A</b>	<b>2022E</b>	<b>2023E</b>	<b>2024E</b>
<b>YE 31 Dec</b>						
Current ratio (x)	0.5	3.5	2.0	1.5	1.5	1.7
Receivable turnover days	77.9	96.8	106.1	100.0	99.0	98.0
Inventory turnover days	0.0	33.7	51.6	51.6	51.6	51.6
Payable turnover days	88.0	221.7	323.8	300.0	300.0	300.0
<b>VALUATION</b>	<b>2019A</b>	<b>2020A</b>	<b>2021A</b>	<b>2022E</b>	<b>2023E</b>	<b>2024E</b>
<b>YE 31 Dec</b>						

Source: Company data, CMBIGM estimates. Note: The calculation of net cash includes financial assets.

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