

SECTOR UPDATE

Healthcare – China

Increasing Availability of Effective Vaccines and Treatments Imply A Gradually Flexible COVID-19 Strategy

The effective COVID-19 measures bring hope for a reopening of Shanghai in the next few weeks. We believe the increasing availability of effective therapeutics and vaccines should help to combat the outbreak and imply a gradual loosening and increased flexibility in China's approach to dealing with COVID-19. We believe companies with advanced anti-COVID-19 pipelines/products will outperform. Maintain MARKET WEIGHT.

WHAT'S NEW

- The dynamic zero-COVID measures have been effective in China. Guangdong and Jilin provinces in particular have seen a substantial drop in the number of new COVID-19 cases. This brings hope for a reopening of Shanghai in the next few weeks.

ESSENTIALS

- Prefer companies with advanced product launches that can combat COVID-19.** China's new wave of lockdowns caused by the highly contagious but less lethal Omicron variant has disrupted supply chains and impacted stock markets. We note that the rigid lockdown measures have reduced the number of positive cases in Guangdong and Jilin. We believe Shanghai will also effectively contain the outbreak. Moreover, the increasingly availability of effective therapeutics and vaccines should improve the situation and gradually prompt a more flexible and loosening approach to dealing with COVID-19 in China in the relatively longer term. We believe companies with good potentials of launching advanced COVID-19 treatments and vaccines will benefit and are likely to outperform.

ACTION

- Vaccines.** China has successfully launched seven COVID-19 vaccines including five inactivated vaccines, one recombinant protein vaccine, and one adenovirus-based viral factor vaccine. There are also 26 more under preclinical studies or clinical trials covering different type of vaccine technologies, such as mRNA vaccines, DNA vaccines, and virus-like particle (VLP) vaccines, etc. We believe the recent outbreak in China provides tremendous market opportunities for mRNA vaccine candidates against currently dominant strains. China currently has a vaccination rate of 88.1% with 1.24b people having received total 3.29b doses of vaccines. The government recommends a heterologous vaccination strategy for its people to improve the effectiveness of the vaccination programme. We believe CSPC's and CanSino's mRNA vaccines may become favourable booster alternatives for most people in China who have received inactivated vaccines. The two companies have recently obtained clinical trial approval. CSPC targets to complete the phase I and II trials in China by the end of Jun 22 and conduct the phase III trial in both China and overseas. The company has its vaccine production capacity of 500m doses in place and will expand the capacity to 1.5b by the end of 2022.

PEER COMPARISON

Company	Ticker	Rec	Price @ 12-Apr-22 (LCY)	Target Price (LCY)	Upside/(Downside) to TP (%)	Market Cap (LCYm)	PE 2022F	PE 2023F	P/B 2022F	P/B 2023F	EV/EBITDA 2022F	EV/EBITDA 2023F	ROE 2022F (%)	Net Gearing 2022F (%)	EPS 2021F (LC)	EPS 2022F (LC)	EPS 2023F (LC)	CAGR 2-yr (%)	PEG 2022F (x)
Shenzhen Mindray	300760 CH	BUY	324.84	430.00	32.4	393,849.5	40.2	33.5	11.6	9.6	34.2	28.0	31.5	(63.9)	6.7	8.1	9.7	20.3%	2.0
CSPC	1093 HK	BUY	8.42	14.00	66.3	100,477.7	13.6	12.2	2.9	2.5	8.8	7.8	22.1	(43.5)	0.4	0.5	0.6	11.9%	1.1
Sinopharm Group	1099 HK	SELL	17.44	16.90	-3.1	54,424.2	5.4	5.1	0.7	0.6	4.3	4.0	12.8	27.3	2.4	2.6	2.8	7.4%	0.7
Sino Biopharma	1177 HK	BUY	4.13	7.50	81.6	77,772.4	17.5	14.8	1.8	1.6	8.3	6.6	17.9	(51.0)	0.2	0.2	0.2	20.2%	0.9
Frontage	1521 HK	BUY	2.47	4.00	61.9	5,124.9	16.1	11.9	1.8	1.6	10.9	7.9	10.1	(33.8)	0.01	0.02	0.03	41.4%	0.4
Innovent Biologics	1801 HK	BUY	26.60	45.00	69.2	39,002.9	n.a.	n.a.	2.4	1.9	n.a.	n.a.	n.a.	(15.8)	(1.5)	(1.1)	(0.4)	-47.1%	n.a.
Ping An Good Doctor	1833 HK	BUY	21.80	22.00	0.9	24,619.4	n.a.	n.a.	1.6	1.8	n.a.	n.a.	n.a.	(14.8)	(1.3)	(1.1)	(0.8)	-23.5%	n.a.
WuXi Biologics	2269 HK	BUY	62.65	100.00	59.6	264,216.3	43.9	29.4	5.7	4.8	33.0	22.4	13.9	(22.1)	0.8	1.2	1.7	51.9%	0.8
WuXi AppTec	2359 HK	BUY	116.10	155.00	33.5	381,129.4	31.9	25.3	6.0	5.1	25.0	19.6	20.7	(8.6)	1.7	3.0	3.7	46.0%	0.7
Ali Health	241 HK	SELL	4.71	7.00	48.6	63,668.9	n.a.	n.a.	3.8	4.2	n.a.	n.a.	n.a.	(69.5)	0.05	(0.04)	(0.02)	n.a.	n.a.
Venus MedTech	2500 HK	BUY	13.56	22.00	62.2	5,980.1	n.a.	n.a.	1.1	1.2	n.a.	n.a.	n.a.	(59.6)	(0.9)	(0.7)	(0.4)	-31.3%	n.a.
Shanghai Henlius	2696 HK	BUY	19.62	30.00	52.9	10,663.4	n.a.	n.a.	5.2	6.2	n.a.	63.9	n.a.	157.5	(1.7)	(1.0)	(0.3)	-55.1%	n.a.
China Shineway	2877 HK	BUY	6.12	9.00	47.1	5,061.2	5.8	5.3	0.6	0.6	n.a.	n.a.	10.6	(69.3)	0.7	0.9	0.9	13.2%	0.4
TUL	3933 HK	BUY	4.11	6.50	58.2	7,505.5	4.7	4.5	0.6	0.5	1.8	1.7	13.3	(20.6)	0.70	0.71	0.75	3.5%	1.3
MicroPort Scientific	853 HK	BUY	15.50	25.00	61.3	28,241.6	n.a.	n.a.	2.3	2.3	n.a.	n.a.	n.a.	(67.8)	(0.16)	(0.20)	(0.22)	18.8%	n.a.
Average							19.9	15.8	3.2	3.0	15.8	18.0	17.0					23.5%	0.9

Source: Bloomberg, UOB Kay Hian

MARKET WEIGHT

(Maintained)

TOP PICKS

Company	Rec	Share Price (LCY)	Target Price (LCY)
CSPC (1093 HK)	BUY	8.42	14.00
WuXi Bio (2269 HK)	BUY	62.65	100.00
WuXi AppTec (2359 HK)	BUY	116.10	155.00
Mindray (300760 CH)	BUY	324.84	430.00

Source: UOB Kay Hian

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- **Therapeutics.** China NMPA has recently granted conditional approval and emergency use approval for Pfizer's small molecule oral drug Paxlovid and Bii Biotech's neutralisation mAb, Amubarvimab+romlusevimab (BR11-196+BR11-198) for the treatment of COVID-19, respectively. There are currently more than 15 small molecules and 11 NmAbs under development. Some of them have already filed their NDA or are in their phase III/pivotal studies. We expect to see an increasing number of therapeutics available for treating COVID-19 in China in the next few months. Leading players, in particular the early movers, that can offer effective antiviral treatments that may significantly reduce the relative risk of death or hospitalisation for COVID-19 patients will benefit from the possible gradual relaxation of COVID-19 strategies.

- **CRO/CDMO services.** As the number of COVID-19 cases are on the rise again driven by new variants (eg, XE, and BA.2), CRO/CDMO service providers have seen strong demand for new product R&D and API or finished drug manufacturing services. WuXi AppTec has obtained a large COVID-19 projects which will significantly boost its revenue and earnings growth in 2022. The company recently announced a positive profit alert with revenue and adjusted net earnings increasing by 71.2% yoy and 85.5% yoy, respectively in 1Q22. WuXi AppTec believes the COVID-19 measures in Shanghai will likely to have limited impact on the company in 2Q22. The company continues to guide for revenue growth of 65-70% yoy in 2022 vs 38.5% yoy in 2021. The outbreak of the Omicron variant is also positive for the revenue growth of WuXi Bio. The company currently has two phase III and six commercial COVID-19 related projects, which are expected to bring about US\$2b of revenue in 2022. It expects to become increasingly globalised and experienced robust revenue expansion of 45% yoy in 2022.

- **Medical devices.** Among the Chinese medical device producers, we prefer medical equipment producers to consumable providers. China is enhancing hospital service capacities by increasing investment in the construction of new hospitals. We believe the move will allow China to be well prepared for the gradual relaxation of COVID-19-combating measures in the near future. Leading domestic medical equipment provider, Mindray, will continue to benefit from the new hospital construction programme. Moreover, we believe most of the medical consumable providers could experience slower revenue growth in 1Q22, as result of the Omicron outbreak. Mindray, however, with its strong execution capabilities, has secured sufficient manufacturing resources and saw no significant impact from the new wave of lockdowns in 1Q22. The company continues to guide steady strong revenue and earnings of over 20% in 2022.

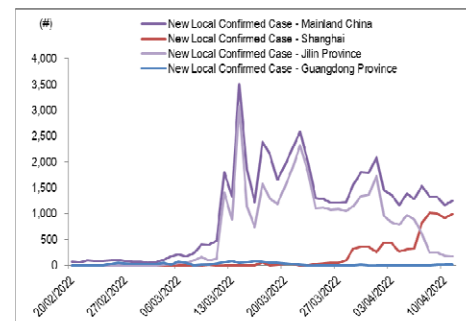
RISKS

- Worse-than-expected impact from the new COVID-19 outbreak in China.
- Risks in intensifying competition.
- Policy risks, such as GPO tenders and unexpected changes in COVID-19 combatting strategies.

VALUATION/RECOMMENDATION

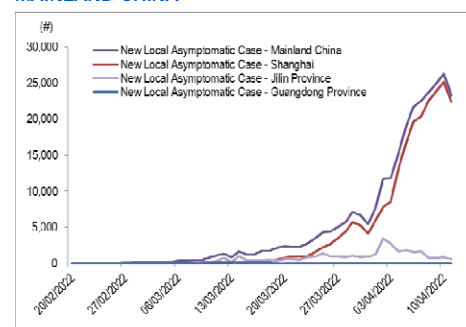
- **Maintain MARKET WEIGHT on China's healthcare sector.** We expect the strict lockdown measures to effectively contain the new wave of COVID-19 outbreak in China. The increasingly availability of effective therapeutics and vaccines should also improve the situation and gradually prompt a more flexible and loosening approach to dealing with COVID-19 in China in a relatively longer term. We believe companies with advanced R&D capacity for COVID-19 vaccines and treatment pipelines will outperform. Our top picks are WuXi AppTec (2359 HK), WuXi Bio (2269 HK), CSPC (1093 HK) and Mindray (300760 CH).

RECENT LOCAL CONFIRMED COVID-19 CASES IN MAINLAND CHINA



Source: National Health Commission (NHC) of China, UOB Kay Hian

RECENT LOCAL Asymptomatic COVID-19 CASES IN MAINLAND CHINA



Source: NHC of China, UOB Kay Hian

DETAILS OF COVID-19 VACCINE PROGRAMMES IN CHINA

Product Name	Company	Product Type	(Expected) Variants Against	Status
Inactivated vaccines				
BIBP	CNBG (Beijing unit)	Inactivated vaccine	Original Strain	Conditionally approved in Dec 20 in China
WIBP	CNBG (Wuhan unit)	Inactivated vaccine	Original Strain	Conditionally approved in Feb 21 in China
CoronaVac	SinoVac	Inactivated vaccine	Original Strain	Conditionally approved in Feb 21 in China
KCONVAC (可维克)	BioKangtai	Inactivated vaccine	Original Strain	Obtained EUA in May 21 in China
Covidful (科维福)	IMBCAMS	Inactivated vaccine	Original Strain	Obtained EUA in Jun 21 in China
Inactivated COVID-19 Vaccine	AIM Vaccine	Inactivated vaccine	Original / Delta Strains	PhII trials ongoing (against the Original Strain); To start PhI trials in 2022 (against the Delta Strain)
mRNA vaccines				
BNT162b2	BioNTech - Pfizer/Fosun Pharma	mRNA vaccine	Original Strain	Under marketing registration review in China
ARCoVax (ARCoV)	Abogen / Walvax / AMS	mRNA vaccine	Omicron variant	In PhIII clinical trials
SW0123 (DF104B1)	Stemirna	mRNA vaccine (first-generation)	Original Strain	In PhI clinical trials
SW-BIC-213	Stemirna	mRNA vaccine (second-generation)	Delta variant	In PhI/II clinical trials
LVRNA009	AIM Vaccine (acquired from Liverna)	mRNA vaccine		In PhII clinical trials; To start PhIII trials in 2022
SYS6006	CSPC	mRNA vaccine	Including Omicron and Delta strains	IND approval in Apr 22 in China
COVID-19 mRNA Vaccine	CanSino/AMS	mRNA vaccine	Including current dominant strains	IND approval in Apr 22 in China
RQ3013	RNA Cure / Walvax	mRNA vaccine	Alpha / Beta and other variants	Under IND review in China
R520A	Recbio	mRNA vaccine	Original Strain	In pre-clinical studies; To file IND in 1H22
Z-VaccRNA	Guanhao Bio / Zy Therapeutics	mRNA vaccine		In pre-clinical studies
ShCoVacc (BD131)	BDgene	mRNA vaccine		In pre-clinical studies
Recombinant protein vaccines				
Zilvax	IMCAS / Zhifei	Targeting RBD-Dimer	Original Strain	Conditionally approved in Mar 22 in China; Obtained EUA in Mar 21
V-01	Livzon Mabpharm	Targeting RBD-Dimer (I-R-F)	Omicron variant	In PhIII clinical trials
SCB-2019 (CpG 1018/Alum)	Clover Bio	Targeting S-protein (Trimer)	Omicron variant	In PhIII clinical trials
Recombinant COVID-19 Vaccine (CHO Cell)	ZHONGYIANKE Biotech	Targeting RBD-Fc		In PhIII clinical trials
Recombinant COVID-19 vaccine (Sf9 cell)	WestVac Biopharma / West China Hospital	Targeting RBD		In PhIII clinical trials
ReCOV	Recbio	Targeting NTD-RBD (Trimer)	Original Strain and multiple variants	In PhIII clinical trials
202-CoV	Zerun Bio/Walvax	Targeting S-protein		In PhII clinical trials
SCTV01C	Sinocelltech	Targeting S-protein	Alpha, Beta Variants	In PhII clinical trials
SCTV01E	Sinocelltech	Targeting S-Trimer	Alpha, Beta, Delta, Omicron Variants	In PhII clinical trials
SCB-2020S	Clover Bio	Targeting S-protein	Beta Variants	In PhII clinical trials
NVSI-06-08	CNBG (NVSI)	Targeting RBD	Original, Delta, Beta and other dominant strains	IND approval in Apr 22
Adenovirus-based viral vector vaccines				
Ad5-nCoV / Convidecia	CanSino	Based on Adenovirus Type 5	Original Strain	Conditionally approved in Feb 21 in China
Ad5-nCoV for Inhalation	CanSino	Based on Adenovirus Type 5	Original Strain	In PhIII clinical trials
Recombinant SARSCoV-2 Vaccine (Chimpanzee Adenoviral Vector, ChAdTS-S)	Walvax	Based on Chimpanzee Adenoviral Vector		In PhII clinical trials
DNA vaccines				
pGX9501	Advaccine	DNA vaccine		In PhI/II clinical trials
Virus-like-particle (VLP) vaccines				
LYB001	Patronus Biotech	VLP vaccine	Delta and other variants	In PhI clinical trials

Sources: Frost & Sullivan, CIC Report, ClinicalTrials.gov, Literature research, industry data, UOB Kay Hian

DETAILS OF COVID-19 TREATMENT PROGRAMMES IN CHINA

Product Name	Company	Product Type	(Expected) Variants Against	Status
Small molecule drugs				
Paxlovid (nirmatrelvir + ritonavir)	Pfizer	3CL protease inhibitor	Omicron and other variants	Conditionally approved in Feb 22 in China; Chinese producers: Fosun Pharma, Apelo Pharma, Desano Pharma, Huahai Pharma (API and preparations), Jiuzhou Pharma (API only)
Azvadine	Genuine Biotech	RdRP inhibitor		In PhIII clinical trials
proxalutamide	Kintor	ACE2/TMPRSS2 inhibitor	Delta and Omicron variants	In PhIII clinical trials
JT001 (VV116)	Junshi / Vigonvita	RdRP inhibitor	Alpha, Beta, Delta, Omicron	In PhI/II clinical trials
FB2001	Frontier Biotech	3CL protease inhibitor		IND approved in Dec 21
SIM0417	Simcere / SIMM	3CL protease inhibitor	Including wild-type, Delta and Omicron strain	In pre-clinical studies
GST-HG171	Cosunter	3CL protease inhibitor		In pre-clinical studies
RAY003	Zhongsheng Pharma	3CL protease inhibitor		In pre-clinical studies
EDDC-2214	Everest	3CL protease inhibitor		In pre-clinical studies; Clinical trials expected to start in 2H22
SHEN26	Xeking Biopharm / Antaiwei	RdRP inhibitor	Omicron variant	In pre-clinical studies
GD1405	GHDDI	3CL protease inhibitor	Delta variant	In pre-clinical studies
MRX-18	MicRx Pharma	3CL protease inhibitor		In pre-clinical studies
VV993	Junshi / Vigonvita	3CL protease inhibitor		In pre-clinical studies
ASC10	Ascleitis	RdRP inhibitor	Original, Delta, and Omicron strains	In pre-clinical studies; To file IND in 1H22
ASC11	Ascleitis	3CL protease inhibitor		In pre-clinical studies; To file IND in 2H22
EK1 atomizer	Jinbo Bio	Pan-coronavirus fusion inhibitor		In PhI clinical trials
peptide COVID-19 nasal spray	Hanyu Pharma	polypeptide nasal spray	Delta and Omicron variants	In pre-clinical studies
Neutralizing monoclonal antibody (NmAb)				
Bamlanivimab+Etesevimab (JS016/LY-CoV016)	Lilly / Junshi	NmAb	Original Strain	EUA approved in Feb 21 and suspended in Jan 22 in U.S.
Amubarvimab+romilusevimab (BR11-196+BR11-198)	Bril	NmAb	Omicron and other variants of concern e.g. Delta and Delta Plus	Approved in Dec 21 in China; Filed EUA application in Oct 21 in U.S.
DXP-604	Singlomics / BeiGene	NmAb	Omicron and other variants	In PhII clinical trials
DXP-593	Singlomics / BeiGene	NmAb	Original Strain	In PhII clinical trials
MW33	Mabwell / Abpro	NmAb		In PhII clinical trials
MW06	Mabwell	NmAb		In pre-clinical studies
SCTA01	Sinocelltech	NmAb		In PhI/II clinical trials
SCTA01C (mono / +SCTA01)	Sinocelltech	NmAb	Alpha, Beta Variants	IND approved in Dec 21
LY-CovMab	Luye Pharma	NmAb	Alpha, Delta, Gamma and Lambda strains	Approved for PhII trials in Aug 21 in China
JMB2002	Jemincare	NmAb	Omicron variant	Finished PhI clinical trials in Jun 21 in China; Approved for clinical trials in Mar 21 in US
JS026	Junshi	NmAb	Omicron variant	In PhI clinical trials
HBM9022 (47D11)	HBM Holdings	NmAb		In PhI clinical trials
HLX71	Henlius	ACE2-Fc receptor fusion protein		Completed enrollment of subjects for PhI trials in U.S.
Traditional Chinese Medicines (TCM)				
Lung Cleansing and Detoxifying granules 清肺排毒颗粒	Institute of Basic Research in Clinical Medicine of CACMS	TCM innovative drug		Approved in Mar 21 in China
Dampness Resolving and Detoxifying granules 化湿败毒颗粒	Yifang Pharma	TCM innovative drug		Approved in Mar 21 in China
Lung Diffusing and Detoxifying granules 宣肺败毒颗粒	Buchang Pharma	TCM innovative drug		Approved in Mar 21 in China

Sources: Frost & Sullivan, CIC Report, ClinicalTrials.gov, Literature research, industry data, UOB Kay Hian

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