COMPANY UPDATE

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Healthcare Team

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AT A GLANCE

Recommend	BUY	
Target price	KRW120,000	33.8%
Current price	KRW89,700	
Market cap	KRW1.7t/USD1.3	Bb
Shares (float)	18,808,775 (52.1	%)
52-week high/low	KRW144,500/KR	W72,500
Avg daily trading value (60-day)	KRW7.4b/ USD5.7m	

> ONE-YEAR PERFORMANCE

	1M	6M	12M
ST Pharm (%)	9.1	0.2	-32.0
Vs Kosdaq (%pts)	12.5	10.9	-5.6

KEY CHANGES

(KRW)	New	Old	Diff
Recommend.	BUY	BUY	
Target price	120,000	120,000	0.0%
2022E EPS	1,313	1,246	5.4%
2023E EPS	1,600	1,553	3.0%

SAMSUNG vs THE STREET

No of estimates	15		
Target price	121,867		
Recommendation	4.0		
BUY * * *: 5 / BUY: 4 / HOLD: 3 / SELL: 2 / SELL * * *: 1			

ST Pharm (237690)

Value of mRNA platform growing

- Positive findings from Moderna's Phase-II study of an mRNA cancer vaccine have raised expectations towards the versatility of mRNA platforms.
- BioNTech is also expected to announce clinical results for its cancer vaccines—one in a Phase-I trial for solid cancer patients and another in a Phase-II trial for melanoma patients—keeping mRNA-related momentum alive.
- ST Pharm is a latecomer to the mRNA segment, but owns major patents relating to an mRNA platform. If its mRNA COVID vaccine (a Phase-I trial is underway), demonstrates safety and efficacy, the value of ST Pharm's mRNA platform should rise.

WHAT'S THE STORY?

Value of mRNA platform growing: On Dec 13, Moderna announced positive findings from the Phase-IIb KEYNOTE-942 trial of a cancer vaccine based on mRNA technology (the same technology used for many COVID-19 vaccines), causing it shares to jump 26.5% over the next two days. In the trial (comprising 157 patients), personalized mRNA cancer vaccine mRNA-4157 in combination with cancer immunotherapy Keytruda (pembrolizumab) showed a 44% better recurrence-free survival (RFS) than Keytruda alone (p=0.0266). mRNA-4157 consists of mRNA coding for up to 34 neoantigens on the surface of melanoma cells. In October, MSD exercised an option (through a USD250m payment to Moderna) to jointly develop and commercialize mRNA-4157. The clinical results demonstrate that mRNA technology can be deployed against cancers as well as diseases. Moderna has more programs in Phase-I trials to treat: 1) cancer-KRAS and Triplet (OX40L/IL-23/IL-36y); and 2) rare diseases-propionic acidemia (PA), methylmalonic acidemia (MMA), and glycogen storage disease 1a (GSD1a). Also, BioNTech is scheduled to announce results from a Phase-I study of BNT312/GEN1042 (CD40X4-1BB bispecific antibody) for solid cancer patients in 4Q22 and a Phase-II study of BNT122 (mRNA cancer vaccine) for melanoma patients in 1H23, which should keep mRNA-related momentum alive.

Maintaining BUY and KRW120,000 target: mRNA's potential success as a platform for therapeutics as well as for vaccines (for diseases) has reversed the share-price declines for Moderna and BioNTech, which had been weighed down by COVID becoming endemic.

SUMMARY OF FINANCIAL DATA			(Continued on t	the next page)
	2021	2022E	2023E	2024E
Revenue (KRWb)	166	225	270	327
Operating profit (KRWb)	6	18	31	61
Net profit (adj) (KRWb)	3	25	30	54
EPS (adj) (KRW)	177	1,313	1,600	2,857
EPS (adj) growth (% y-y)	nm	639.5	21.9	78.6
EBITDA margin (%)	12.1	15.2	17.4	23.6
ROE (%)	1.1	7.4	8.5	14.0
P/E (adj) (x)	784.2	68.3	56.1	31.4
P/B (x)	8.1	4.9	4.6	4.1
EV/EBITDA (x)	131.3	51.6	37.7	22.8
Dividend yield (%)	0.4	0.6	0.6	0.6

Source: Company data, Samsung Securities estimates

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As mRNA platforms increasingly demonstrate safety and efficacy, multinational pharmas are establishing ties with companies with such platforms. Korea's ST Pharm is a latecomer but has proprietary 5'-cap and lipid nano particle (LNP) technologies. It has harnessed these technologies to develop mRNA vaccine STP-2104, which is currently in a Phase-I trial targeting completion by end-2023. A successful demonstration of safety and immunogenicity should lift the value of ST Pharm's mRNA platform.

Global mRNA treatment development (excluding infectious disease)

Develope	r Project	Indication	Status	Note
Moderna	mRNA-4157 (Personalized cancer vaccine)	Solid cancer	Phase II	Announced improvement on Dec 4, 2022 in RFS of 44% with combination of Keytruda against monotherapy Keytruda To commence Phase III in 2023
	mRNA-5671 (KRAS)	Cancer	Phase I	MSD waived co-development rights in Feb 2022
	mRNA-4359	Immune checkpoint	Phase I	
	mRNA-2752 (ΟX40L/IL-23/IL-36γ triplet)	Solid cancer/ Hematologic cancer	Phase I	
	MEDI1191	IL-12 Solid cancer	Phase I	Review of the asset after return of development/commercialization rights from AstraZeneca in Nov 2022
	mRNA-3927 (PCCA/PCCB double expression)	PA	Phase II	Enrolling additional cohorts
	mRNA-3705	MMA	Phase I	
	mRNA-3745	GSD1a	Phase I	
BioNTech	BNT122	Melanoma 1L	Phase II	To announce data in 1H23
	BNT312 (CD40x4-BB)	Solid cancer	Phase I	To announce data in 4Q22

Source: Company data, Samsung Securities

Moderna, Phase-II result of mRNA-4157 for melanoma

Recurrence-Fr	ee Survival (RFS)
in combination with k the risk of recurrence (HR=0.56 [95% CI, 0.	e or death by 44%
	moderna

Comparison of mRNA technology

		ST Pharm	Pfizer/BioNTech	Moderna
pDNA		In-house designed	In-house designed	In-house designed
mRNA	5'-cap	SmartCap	Cleancap (Trilink)	Cap1
	Pseudo- uridine	×	\checkmark	√ (L/I)
LNP	LNP	\checkmark	\checkmark	\checkmark

Source: Company data, Samsung Securities

Source: Moderna, Samsung Securities

Year-end Dec 31 (KRWb)	2020	2021	2022E	2023E	2024E
Sales	124	166	225	270	327
Cost of goods sold	104	108	139	176	201
Gross profit	20	58	86	94	126
Gross margin (%)	16.1	34.9	38.3	34.9	38.6
SG&A expenses	39	52	68	63	66
Operating profit	-19	6	18	31	61
Operating margin (%)	-15.2	3.4	8.2	11.5	18.5
Non-operating gains (losses)	2	-4	9	7	7
Financial profit	6	6	15	7	7
Financial costs	4	6	5	0	0
Equity-method gains (losses)	0	0	0	0	0
Other	0	-4	-0	0	-0
Pre-tax profit	-17	1	28	38	67
Taxes	-4	-2	3	8	13
Effective tax rate (%)	21.8	-168.0	11.3	20.0	20.0
Profit from continuing operations	-13	3	25	30	54
Profit from discontinued operations	0	0	0	0	0
Net profit	-13	3	25	30	54
Net margin (%)	-10.6	2.0	11.0	11.2	16.4
Net profit (controlling interests)	-12	3	25	30	54
Net profit (non-controlling interests)	-1	0	-0	0	0
EBITDA	-5	20	34	47	77
EBITDA margin (%)	-3.8	12.1	15.2	17.4	23.6
EPS (parent-based) (KRW)	-651	177	1,313	1,600	2,857
EPS (consolidated) (KRW)	-705	181	1,310	1,600	2,857
Adjusted EPS (KRW)*	-651	177	1,313	1,600	2,857

Cash flow statement

Year-end Dec 31 (KRWb)	2020	2021	2022E	2023E	2024E
Cash flow from operations	-21	7	10	29	51
Net profit	-13	3	25	30	54
Non-cash profit and expenses	13	25	24	24	30
Depreciation	14	14	15	15	16
Amortization	0	0	1	1	1
Other	-1	10	8	8	13
Changes in A/L from operating activities	-21	-21	-34	-17	-19
Cash flow from investments	-69	-8	-35	-34	-35
Change in tangible assets	-17	-51	-40	-27	-27
Change in financial assets	-47	40	-10	-7	-8
Other	-5	3	15	-0	0
Cash flow from financing	116	-0	6	-7	-7
Change in debt	111	-19	43	2	3
Change in equity	6	21	0	0	0
Dividends	0	0	-9	-9	-9
Other	-1	-2	-27	0	0
Change in cash	26	1	-17	-12	9
Cash at beginning of year	13	39	39	22	10
Cash at end of year	39	39	22	10	20
Gross cash flow	-0	28	49	54	84
Free cash flow	-38	-45	-31	2	24

Note: * Excluding one-off items ** Fully diluted, excluding one-off items *** From companies subject to equity-method valuation

Source: Company data, Samsung Securities estimates

Balance sheet

Year-end Dec 31 (KRWb)	2020	2021	2022E	2023E	2024E
Current assets	236	244	266	285	329
Cash & equivalents	39	39	22	10	20
Accounts receivable	45	63	0	0	0
Inventories	45	81	122	137	155
Other current assets	106	61	122	137	154
Fixed assets	210	254	284	295	306
Investment assets	10	15	15	15	16
Tangible assets	174	209	235	247	258
Intangible assets	10	13	13	12	12
Other long-term assets	16	18	21	21	21
Total assets	446	499	550	580	635
Current liabilities	19	75	87	96	105
Accounts payable	5	13	0	0	0
Short-term debt	0	0	0	0	0
Other current liabilities	14	63	87	96	105
Long-term liabilities	130	97	117	118	118
Bonds & long-term debt	126	91	106	106	106
Other long-term liabilities	5	6	11	12	12
Total liabilities	149	173	204	214	224
Owners of parent equity	295	323	342	363	407
Capital stock	9	9	9	9	9
Capital surplus	175	196	196	196	196
Retained earnings	112	116	131	151	196
Other	-1	2	6	6	6
Non-controlling interests' equity	1	3	3	3	3
Total equity	297	326	346	366	411
Net debt	4	24	74	82	67

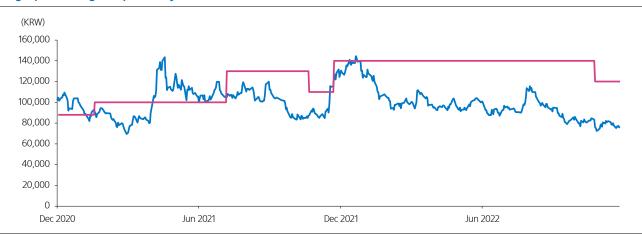
Financial ratios

Year-end Dec 31	2020	2021	2022E	2023E	2024E
Growth (%)					
Sales	33.1	33.5	35.5	20.1	21.4
Operating profit	nm	nm	230.5	68.1	95.4
Net profit	nm	nm	629.4	22.2	78.6
Adjusted EPS**	nm	nm	639.5	21.9	78.6
Per-share data (KRW)					
EPS (parent-based)	-651	177	1,313	1,600	2,857
EPS (consolidated)	-705	181	1,310	1,600	2,857
Adjusted EPS**	-651	177	1,313	1,600	2,857
BVPS	15,830	17,171	18,195	19,294	21,652
DPS (common)	0	500	500	500	500
Valuations (x)					
P/E***	n/a	784.2	68.3	56.1	31.4
P/B***	6.6	8.1	4.9	4.6	4.1
EV/EBITDA	n/a	131.3	51.6	37.7	22.8
Ratios (%)					
ROE	-4.1	1.1	7.4	8.5	14.0
ROA	-3.3	0.7	4.7	5.3	8.9
ROIC	-5.8	5.2	4.6	6.1	11.1
Payout ratio	0.0	283.9	38.1	31.3	17.5
Dividend yield (common)	0.0	0.4	0.6	0.6	0.6
Net debt to equity	1.4	7.5	21.5	22.3	16.3
Interest coverage (x)	-29.2	1.1	n/a	n/a	n/a

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Target price changes in past two years



Rating changes over past two years (adjusted share prices)

2020/9/17	2021/1/26	7/15	10/29	11/30	2022/11/1				
BUY	BUY	BUY	BUY	BUY	BUY				
88000	100000	130000	110000	140000	120000				
-7.73	0.36	-21.70	-15.23	-27.62					
26.70	43.50	-7.77	5.18	3.21					
	2020/9/17 BUY 88000 -7.73	2020/9/17 2021/1/26 BUY BUY 88000 100000 -7.73 0.36	2020/9/17 2021/1/26 7/15 BUY BUY BUY 88000 100000 130000 -7.73 0.36 -21.70	2020/9/17 2021/1/26 7/15 10/29 BUY BUY BUY BUY 88000 100000 130000 110000 -7.73 0.36 -21.70 -15.23	2020/9/17 2021/1/26 7/15 10/29 11/30 BUY BUY BUY BUY BUY BUY 88000 100000 130000 110000 140000 -7.73 0.36 -21.70 -15.23 -27.62				

Note: * [(average, maximum, or minimum share price over duration of target price minus target price) / target price] x 100%

** Maximum/minimum share price if new target is higher/lower than market close on the business day prior to target price change

Samsung	Securities	uses the f	ollowing	investment r	atings.
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Company Industry BUY Expected to increase in value by 10% or more within 12 months and OVERWEIGHT Expected to outperform market by 5% or more within 12 months is highly attractive within sector NEUTRAL Expected to outperform/underperform market by less than HOLD Expected to increase/decrease in value by less than 10% within 12 months 5% within 12 months SELL Expected to decrease in value by 10% or more within 12 months UNDERWEIGHT Expected to underperform market by 5% or more within 12 months Percentage of ratings in 12 months prior to Sep 30, 2022 BUY (84%) | HOLD (16%) | SELL (0%)

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