

Action Summary – 18 August 2020

Analyst Theodore R. O'Neill – Company reaches major inflection point – raising target to \$43 from \$36

- **Revenue grew 15.5x sequentially in a single quarter.** It took Tesla (TSLA-NR) seven quarters (Sept 2012-June 2014) to grow revenue 15x. And like TSLA, at that time, there was deep skepticism about its future. Investors are right to question the future of a company that has this kind of growth, but we believe CODX has built a durable, sustainable business, that unlike TSLA, generated growth and profits simultaneously.
- **Like TSLA, CODX is a technology platform.** CODX's proprietary platform and IP allow it to rapidly engineer any number of molecular diagnostic tests that are faster, more specific and with fewer false readings than competitors. Because these tests can be used in any PCR equipped lab (the vast majority) and do not require specialized equipment, the uptake can be rapid and we are seeing that in its growth.
- **Not a one hit wonder.** CODX's rise from relative obscurity to a respected molecular diagnostic test provider has given it the wherewithal (both financial and regulatory) to execute on its planned development of multiple new products – and in recognition of this we are projecting growth to continue
- **CODX reported 2Q20 results that on the face of it appeared to miss expectations, but it was the estimates that were wrong.** Analysts confronted with companies that are likely to grow 15x in a single quarter are notoriously difficult to model because it is so rare. The company reported EPS of \$0.43 on \$24MM of revenue against consensus EPS and revenue of \$0.59 and \$26.5MM, respectively.
- **We have raised our 2020 and 2021 estimates,** 2020 EPS goes to \$1.54 from \$1.42. 2021 EPS goes to \$2.81 from \$1.20. 2021 revenue goes to \$185MM from \$89MM.
- Following the increase in earnings estimates we are reiterating our Buy rating and raising our price target to \$43 from \$36

8/17 Closing price: \$15.64	Market cap: \$437 million	Multiple of book: 13	EV/2021 Sales: 4.1
Shares outstanding: 28 million	Insider ownership: 11%	Avg. 30-day trading volume: 3.5 million	Dividend/Yield: NA/NA

GAAP estimates (EPS in dollars – Revenue in \$000)

Period	EPS	Revenue	Op Margin
1Q19A	(\$0.09)	\$0.003	NMF
2Q19A	(\$0.08)	\$0.062	NMF
3Q19A	(\$0.10)	\$0.041	NMF
4Q19A	(\$0.10)	\$0.11	NMF
FY19A	<u>(\$0.37)</u>	<u>\$0.22</u>	<u>NMF</u>
1Q20A	(\$0.05)	\$1.55	NMF
2Q20A	\$0.43	\$24.04	51%
3Q20E	\$0.49	\$30.00	48%
4Q20E	<u>\$0.56</u>	<u>\$35.00</u>	<u>47%</u>
FY20E	<u>\$1.54</u>	<u>\$90.59</u>	<u>47%</u>
1Q21E	\$0.60	\$40.00	44%
2Q21E	\$0.69	\$45.00	45%
3Q21E	\$0.77	\$50.00	46%
4Q21E	<u>\$0.76</u>	<u>\$50.00</u>	<u>45%</u>
FY21E	<u>\$2.81</u>	<u>\$185.00</u>	<u>45%</u>

Note: Numbers may not add due to rounding. See our full model in the back of this report.

Cash balance (in millions)

• 2018A	• \$1.0
• 2019A	• \$0.9
• 2020E	• \$42.1
• 2021E	• \$115.9

Debt (in millions)

• 2018A	• \$0.0
• 2019E	• \$0.0
• 2020E	• \$0.0
• 2021E	• \$0.0

Adjusted EBITDA

• 2018A	• (\$6.2)
• 2019E	• (\$6.1)
• 2020E	• \$42.7
• 2021E	• \$83.4

Risks/Valuation

- Risks include: Regulatory approval, managing rapid growth
- Our \$43.00 target is derived using a discounted future earnings model

Company description: Co-Diagnostics, Inc. is developing robust and innovative molecular tools for detection of infectious diseases, liquid biopsy for cancer screening, and agricultural applications.

Figure 1 – Co-Diagnostics, Inc. – 1-Year Trading snapshot



Source: Refinitiv Eikon

VALUATION METHODOLOGY

We believe CODX is undervalued and we support that belief with two valuation techniques, below. For the purposes of determining our price target we use a discounted future earnings model. The following valuation techniques are being used:

- The discounted value of all future earnings was used for our price target (see Figure 2)
- Valuation relative to peers (see Figure 4)

Discounted Future Earnings – Basis for Price Target

Our 12-month price target of \$43.00 is based on a discounted earnings model (see Figure 2). This is \$7 above our previous price target and the change is due to our model showing more earnings this year and all out years as the company executes on a long-term strategy to offer a portfolio of diagnostic tests partially offset by raising the discount rate to 8.5% from 7%. Had we not increased the discount rate our price target would have jumped to \$54. For comparison, see Figure 3, the previous price target. Notice, in the previous future earnings stream, we assumed two down years because we thought it might take that long to develop and market new tests. That isn't our view now.

Our valuation model is shown in Figure 2 below. The model sums up all earnings per share, discounted at 8.5% to arrive at a per share value. Near-term EPS shows slow growth, because, again if we had more growth than shown, the price target would just balloon. Note, this model understates future acquisitions, products or markets, probably understates the tax benefits, but offsetting that, the earnings never have a down year.

The implied share price in Figure 2 is \$43.32 which we round down to \$43.00.

Figure 2 – Co-Diagnostics, Inc. – Discounted Future Earnings

Discounted future earnings		\$43.32
Year	EPS	Discounted EPS
2020	1.54	1.54
2021	2.81	2.59
2022	2.85	2.42
2023	2.90	2.27
2024	2.95	2.13
Terminal Value:		23.57

Source: Litchfield Hills Research LLC

Figure 3 – Co-Diagnostics, Inc. – Previous Discounted Future Earnings

Discounted future earnings		\$35.54
Year	EPS	Discounted EPS
2020	1.34	1.34
2021	1.20	1.12
2022	1.05	0.92
2023	1.10	0.90
2024	1.20	0.92
Terminal Value:		24.83

Source: Litchfield Hills Research LLC

Valuation Relative to Peers

If we compare CODX to a simple average of its peers (Figure 4), the shares sell at a discount to 2020-2021 PE and 2020-2021 Sales Multiple and other multiples from 29%-69%. For full details, see our comparable page figure 6.

Figure 4 – Co-Diagnostics, Inc. – Summary Discount to Peers

	2020 PE	2021 PE	2020 Sales Multiple	2021 Sales Multiple
Peers	28.78	25.32	11.45	8.00
CODX	8.97	7.85	4.95	4.03
Discount to Peers	69%	69%	57%	50%

Source: Litchfield Hills Research LLC and Refinitiv Eikon

Guidance and Financial Forecasts

The company does not provide guidance although it did provide a mid-3Q20 update that it has had sales of \$50MM YTD. Our forecast assumes 2020 test kit growth continues well beyond COVID-19 sales and extends into ABC kits for multiplexing Flu-A, Flu-B and COVID. The company is able to generate a lot of sales without having to hire a lot of people because the company was designed to be highly productive. We believe the company has plenty of cash (\$18.6MM) and is cash flow positive this year.

Quarterly Results

CODX reported 2Q20 results that on the face of it appeared to miss expectations, but it was the estimates that were wrong. Analysts confronted with companies that are likely to grow 15x in a single quarter are notoriously difficult to model because it is so rare. 2Q20 EPS estimates ranged from our low of \$0.46 to \$0.69. The company reported EPS of \$0.43 on \$24MM of revenue against consensus EPS and revenue of \$0.59 and \$26.5MM, respectively. Relative to our estimates, the company reported a largely in-line quarter. We were looking for \$25MM of revenue and the company reported \$24.04MM. We were looking for EPS of \$0.46 versus the \$0.43 it reported but had we got the share count right, our estimate would have been \$0.43 (the reported and our net income estimates are nearly identical at \$12.6MM) with slightly lower revenue and higher expenses offset by better margins and gain on its Indian JV. See Figure 5.

Figure 5 – Co-Diagnostics, Inc. – Quarterly Variance Analysis (\$000)

	2020 Q2E	2020 Q2A	Better/(worse) than forecast
Income Statement			
Total Revenue	\$25,000	\$24,040	(\$960)
Total cost of revenue	10,000	8,345	1,655
Total Gross Profit	15,000	15,696	696
Operating expenses:			
Selling and marketing	300	390	(90)
Administrative and general	1,600	2,191	(591)
R&D	420	750	(330)
Depreciation and amortization	20	25	(5)
Total Expenses	2,340	3,357	(1,017)
Earnings (loss) from Operations	12,660	12,339	(321)
Total Other income/(expense)	0	297	297
Earnings before taxes	12,660	12,636	(24)
Tax expense/(benefit)	0	0	0
Net income	\$12,660	\$12,636	(\$24)
EPS	\$ 0.46	\$ 0.43	\$ (0.03)
Diluted common shares	27,457	29,152	
Income Statement			
Total Revenue	100%	100%	
Total cost of revenue	40%	35%	
Total Gross Profit	60.0%	65.3%	53 bps

Source: Company filings and Litchfield Hills Research LLC

Figure 6 – Co-Diagnostics, Inc. – Comp Table

Identifier (RIC)	Company Name	8/14 Close	Market Cap \$MM	EV \$MM	2020 PE	2021 PE	2020 Sales Multiple	2021 Sales Multiple	2020 EV / EBITDA	2021 EV / EBITDA	2020 EV / Revenue	2021 EV / Revenue
RHHBY.PK	Roche Holding AG	\$42.55	294,880		16.18	15.20	4.46	4.28				
ABT.N	Abbott Laboratories	\$99.99	177,035	191,897	30.79	25.47	5.41	4.90	23.21	19.62	5.85	5.30
TMO	Thermo Fisher Scientific I	\$413.76	163,679	179,174	27.43	24.87	5.83	5.42	23.06	21.03	6.38	5.92
DHR	Danaher Corp	\$204.86	145,329	165,456	37.25	31.96	6.82	6.01	28.69	24.35	7.75	6.83
SIEGY.PK	Siemens AG	\$68.40	116,687	149,883	20.21	16.18	1.36	1.29	16.08	13.93	2.22	2.04
ILMN.O	Illumina Inc	\$347.56	50,744	48,638	NA	NA	16.48	12.91	NA	35.78	15.83	12.37
BIOX.PA	Biomerieux SA	\$163.41	19,293	19,777	48.50	44.21	5.55	5.28	24.65	22.94	5.44	5.14
HOLX.O	Hologic Inc	\$66.81	17,303	19,879	22.44	16.04	5.05	4.10	16.30	12.26	5.81	4.69
QGEN.N	Qiagen NV	\$49.45	11,414	12,376	24.68	20.72	6.42	5.78	16.73	14.17	6.79	5.95
GH.O	Guardant Health Inc	\$85.46	8,497	7,609			30.45	22.78			NA	NA
096530.KQ	Seegene Inc	\$186.53	4,893	4,806	14.91	17.02	7.85	9.19	10.30	12.73	6.68	7.31
LMNX.O	Luminex Corp	\$30.87	1,431	1,338	36.47	43.07	3.40	3.20	16.27	17.82	3.17	3.01
GNMK.O	Genmark Diagnostics Inc	\$15.23	1,082	1,020			6.62	6.38		NA	6.25	6.01
FLGT.O	Fulgent Genetics Inc	\$42.02	918	897	37.76	22.75	7.26	5.14	23.81	18.33	7.09	5.01
AXDX.O	Accelerate Diagnostics In	\$14.51	818	869			66.80	31.54			NA	NA
TTOO.O	T2 Biosystems Inc	\$1.48	219	227			11.58	6.30			11.88	5.87
BNGO.O	Bionano Genomics Inc	\$0.70	98	106			13.99	5.97			15.34	6.56
ATOS.O	Atossa Therapeutics Inc	\$3.71	39	32				11.10				9.14
IDXG.OQ	Interpace Biosciences Inc	\$5.78	23	58			0.69	0.48			1.70	1.19
	AVERAGE				28.78	25.23	11.45	8.00	19.91	19.36	7.21	5.77
CODX.O	Co-Diagnostics Inc	\$16.29	457	439	8.97	7.85	4.95	4.03	11.70	13.06	4.96	4.10
	CODX Discount to Peers				69%	69%	57%	50%	41%	33%	31%	29%
Certain comparable metrics were excluded with NA because they would have made the comparison even worse had we used them.												

Source: Litchfield Hills Research LLC and Refinitiv Eikon (formerly Thomson Reuters Eikon)

Figure 7 – Co-Diagnostics, Inc. – Income Statement (\$'000)

November ending year	2017 Year	2018 Year	2019A				2019A Year	2020E				2020E Year	2021E				2021E Year
	Q1A	Q2A	Q3A	Q4A			Q1A	Q2A	Q3E	Q4E		Q1E	Q2E	Q3E	Q4E		
Total revenue	\$8	\$40	\$3	\$62	\$41	\$109	\$215	\$1,549	\$24,040	\$30,000	\$35,000	\$90,589	\$40,000	\$45,000	\$50,000	\$50,000	\$185,000
Cost of Goods	0	9	0	39	20	53	112	482	8,345	12,000	14,000	34,826	18,000	20,250	22,500	22,500	83,250
Gross Profit	7	31	3	23	21	56	103	1,067	15,696	18,000	21,000	55,762	22,000	24,750	27,500	27,500	101,750
Selling and marketing	427	1,166	256	252	262	291	1,062	268	390	400	400	1,459	425	450	475	500	1,850
Administrative and general	3,096	3,571	640	808	1,061	988	3,497	1,459	2,191	2,300	3,000	8,951	3,000	3,000	3,200	3,300	12,500
R&D	1,003	1,361	347	313	331	381	1,371	400	750	800	1,000	2,950	1,000	1,000	1,000	1,000	4,000
Depreciation and amortizati	46	51	14	16	17	19	66	21	25	30	30	106	25	25	25	25	100
Total Operating Expenses	4,571	6,148	1,257	1,389	1,671	1,679	5,996	2,149	3,357	3,530	4,430	13,465	4,450	4,475	4,700	4,825	18,450
Operating Income	(4,564)	(6,118)	(1,254)	(1,366)	(1,650)	(1,623)	(5,894)	(1,082)	12,339	14,470	16,570	42,297	17,550	20,275	22,800	22,675	83,300
	NMF	NMF	NMF	NMF	NMF	NMF	NMF	NMF	51%	48%	47%	47%	44%	45%	46%	45%	45%
Total Other Items	(2,395)	(154)	(114)	21	(98)	(112)	(302)	17	297	0	0	313	0	0	0	0	0
Pre-Tax Income	(6,959)	(6,272)	(1,368)	(1,344)	(1,748)	(1,735)	(6,196)	(1,065)	12,636	14,470	16,570	42,610	17,550	20,275	22,800	22,675	83,300
Taxes (benefit)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Tax Rate	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Net Income (loss)	(\$6,959)	(\$6,272)	(\$1,368)	(\$1,344)	(\$1,748)	(\$1,735)	(\$6,196)	(\$1,065)	\$12,636	\$14,470	\$16,570	\$42,610	\$17,550	\$20,275	\$22,800	\$22,675	\$83,300
EPS, as reported	(\$0.63)	(\$0.50)	(\$0.09)	(\$0.08)	(\$0.10)	(\$0.10)	(\$0.37)	(\$0.05)	\$0.43	\$0.49	\$0.56	\$1.54	\$0.60	\$0.69	\$0.77	\$0.76	\$2.81
Diluted Shares Outstanding	10,960	12,485	16,067	17,018	17,329	17,350	16,757	22,820	29,152	29,252	29,352	27,644	29,452	29,552	29,652	29,752	29,602

Source: Company reports and Litchfield Hills Research LLC

Figure 8 – Co-Diagnostics, Inc. – Balance Sheet (\$'000)

November ending year	FY2021E	FY2020E	FY2019A	FY2018	FY2017
Balance sheet					
Current Assets					
Cash and S.T.I.	\$115,943	\$42,143	\$893	\$950	\$3,534
Accounts receivable	20,000	10,000	131	13	0
Inventories	20,000	15,000	197	18	9
Other assets	1,000	1,000	363	70	908
Total Current Assets	156,943	68,143	1,584	1,052	4,452
Net PP&E	2,000	1,000	197	156	166
Other non-current assets	2,000	2,000	434	345	45
Total Assets	\$160,943	\$71,143	\$2,215	\$1,553	\$4,662
Current Liabilities					
Accounts payable	\$6,000	\$2,000	\$6	\$149	\$41
Accrued expenses	5,000	4,000	321	294	577
Other current liabilities	1,000	500	1	1,909	11
Total current liabilities	12,000	6,500	328	2,352	628
Conv. and Long Term Debt	0	0	0	0	0
Other non-current	0	0	150	260	184
Total Liabilities	12,000	6,500	478	2,612	812
Stockholders' Equity					
Preferred stock	0	0	0	0	0
Common stock	0	0	17	13	12
Additional paid-in-capital	48,000	47,000	26,688	17,622	16,261
Retained earnings	100,943	17,643	(24,968)	(18,694)	(12,422)
Cum. trans. adj. and treasury stock	0	0	0	0	0
Total stockholders' equity	148,943	64,643	1,737	(1,059)	3,851
Total Liabilities and equity	\$160,943	\$71,143	\$2,215	\$1,553	\$4,662

Source: Company reports and Litchfield Hills Research LLC

Figure 9 – Co-Diagnostics, Inc. – Cash Flow (\$'000)

	2021E	2020E	2019A	2018	2017
Net Income	\$83,300	\$42,610	(\$6,196)	(\$6,272)	(\$6,959)
Accounts receivable	(10,000)	(9,869)	(118)	(13)	0
Inventories	(5,000)	(14,803)	(179)	(9)	(9)
Other assets	0	(637)	(292)	838	(908)
PP&E	(1,000)	(803)	(41)	9	(166)
Other non-current	0	(1,566)	(89)	(300)	(45)
Accounts payable	4,000	1,994	(143)	108	40
Accrued expenses	1,000	3,679	26	(282)	574
Other current liabilities	500	499	(1,907)	1,898	11
Conv. and Long Term Debt	0	0	0	0	(0)
Other non-current	0	(150)	(110)	76	184
Preferred stock	0	0	0	0	0
Common stock	0	(17)	4	1	12
Additional paid-in-capital	1,000	20,312	9,065	1,362	16,254
Stock subscription receivable	0	0	0	0	0
Other			(78)	0	0
Total Cash Flow	\$73,800	\$41,250	(\$57.10)	(\$2,584)	\$8,988

Source: Litchfield Hills Research LLC

Disclosures:

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Co-Diagnostics, Inc.

CODX-\$43.00 PT

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