

Reason for report:

**EARNINGS**

## CAREDX, INC.

### Business on Plan; cfDNA Interest Continues to Build

• **Bottom Line:** After a solid 1Q report, we maintain our Outperform rating and \$10 price target on CDNA's stock.

• **Revenue beat, AlloMap volume in line.** CDNA reported 1Q revenue of \$7.2M, which is 4.8% above our and the Street's ~\$6.8M expectation, beaten by strong AlloMap collections in the quarter. AlloMap volumes were ~3,100, up 11% y/y and in line with our forecast.

• **AlloMap commercialization continues steadily.** AlloMap is now used in 115/129 US transplant centers (up from 110 in Dec.), with 58 centers establishing a protocol (up from 48) and representing almost half of U.S. heart transplant centers. As of March 31st, the Outcomes AlloMap Registry (OAR) had 1,300 samples from 436 patients (up from 1,000+ samples and 364 patients in Dec.). Meanwhile, the cfDNA parallel registry study (D-OAR) of AlloMap launched in 5 more centers this quarter (total 8), with 118 samples from 64 patients.

• **Interest in cell free DNA (cfDNA) continues to build.** At the International Society for Heart and Lung Transplantation (ISHLT) meeting in April, CDNA presented three abstracts (all oral presentations) on the use of cfDNA as a marker in transplantation. Additionally, the company announced its presence in kidney transplant surveillance at the American Transplant Congress (ATC) last week.

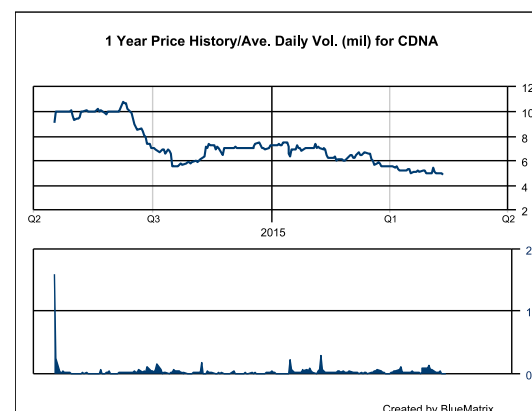
• **DART study up and running.** The DART trials, the two-phase cfDNA kidney trial in evaluating rejection in kidney transplants, enrolled the first of its 200 anticipated participants. The first data read-out is expected as planned in 1H16 and the initial results will determine the roll-out timing of the next phase, which will aim to establish clinical validity of cfDNA as a marker in kidney transplant surveillance.

• **Collaboration with Diaxonhit (commercial partner in Europe) bearing fruit.** CDNA continues to increase its presence in Europe, with the French Ministry of Health approving funding that will allow 15 transplant centers in France to use AlloMap to monitor their transplant patients.

#### Key Stats:

(NASDAQ:CDNA)

<b>S&amp;P 600 Health Care Index:</b>	<b>1,606.69</b>
<b>Price:</b>	<b>\$4.90</b>
Price Target:	\$10.00
Methodology:	~3.5x EV/TTM estimated revenue ending Dec 2016
52 Week High:	\$10.89
52 Week Low:	\$4.88
Shares Outstanding (mil):	11.8
Market Capitalization (mil):	\$57.8
Book Value/Share:	\$3.35
Cash Per Share:	\$3.30
Dividend (ann):	\$0.00
Dividend Yield:	0.0%



Dec Yr	1Q	2Q	3Q	4Q	FY Rev	1Q	2Q	3Q	4Q	FY EPS	P/E
2014A	\$5.9	\$6.8	\$6.7	\$8.0	\$27.3	(\$0.21)	\$0.13	(\$0.01)	\$0.00	(\$0.05)	NM
2015E - New	<b>\$7.2A</b>	<b>\$7.4</b>	<b>\$7.4</b>	<b>\$7.7</b>	<b>\$29.8</b>	<b>(\$0.21)A</b>	<b>(\$0.17)</b>	<b>(\$0.19)</b>	<b>(\$0.20)</b>	<b>(\$0.77)</b>	<b>NM</b>
2015E - Old	\$6.9	\$7.4	\$7.4	\$7.7	\$29.4	(\$0.19)	(\$0.20)	(\$0.20)	(\$0.21)	(\$0.81)	NM
2016E - New	--	--	--	--	<b>\$33.7</b>	--	--	--	--	<b>(\$0.73)</b>	<b>NM</b>
2016E - Old	--	--	--	--	\$33.8	--	--	--	--	(\$0.73)	NM
2017E	--	--	--	--	\$42.0	--	--	--	--	(\$0.55)	NM

Source: Company Information and Leerink Partners LLC Research

Revenues in millions.

3Q14 excludes \$1.2m benefit from reversal of contingent consideration allowance for ImmuMatrix acquisition.

## INVESTMENT THESIS

We rate Brisbane, California-based CareDx (CDNA) Outperform with a \$10 price target. CDNA markets a non-invasive molecular gene expression test (AlloMap) of 20 genes for heart transplant recipients to diagnose acute cellular rejection, reduce use of biopsy, and better tailor immunosuppression post-transplant to patient needs. Additionally, the company is developing products for post-transplant monitoring that use nextgen sequencing (NGS) to detect cell free DNA (cfDNA). We believe the company will continue to successfully expand its core AlloMap franchise while developing its cfDNA products, which could be marketed as early as 2017. We believe CDNA's pipeline opportunity is undervalued at current levels and thus our Outperform rating.

## VALUATION

Our \$10 price target corresponds to an enterprise value (using projected levels of debt and cash) that is ~3.5x our revenue estimate for the twelve months ended Dec-16. This is a meaningful discount to the tools/diagnostics emerging growth peer group median multiple of ~6x, which we believe more than balances concerns over the size of CDNA's opportunity in heart transplant with its opportunities in kidney and other transplants.

## RISKS TO VALUATION

CDNA's risks include, but are not limited to: the trajectory of the AlloMap revenue ramp, the ability to successfully develop and commercialize products using cfDNA for transplant surveillance, and the impact of a changing regulatory environment in the U.S. for diagnostics.

## CareDx (CDNA)

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Income statement											dan.leonard@leerink.com		
Period Ended (\$ thousands)	2013	Mar-14	Jun-14	Sep-14	Dec-14	2014	Mar-15	Jun-15e	Sep-15e	Dec-15e	2015e	2016e	2017e
Revenues													
Testing revenue	\$21,672	\$5,834	\$6,710	\$6,601	\$6,697	\$25,842	\$7,096	\$7,335	\$7,347	\$7,568	\$29,345	\$33,252	\$41,577
Other	426	90	66	53	1,255	1,464	120	100	100	100	420	400	400
Total revenues	22,099	5,924	6,776	6,654	7,952	27,306	7,216	7,435	7,447	7,668	29,765	33,652	41,977
Cost of service	9,078	2,162	2,403	1,772	2,204	8,541	2,711	2,528	2,532	2,607	10,378	11,442	14,272
Gross profit	13,021	3,762	4,373	4,882	5,748	18,765	4,505	4,907	4,915	5,061	19,388	22,210	27,705
SG&A	10,701	3,269	3,926	3,729	3,984	14,908	4,728	4,535	4,543	4,754	18,560	19,518	20,988
R&D	3,176	720	792	1,036	1,298	3,846	1,421	2,007	2,160	2,224	7,812	9,837	11,753
Operating income (loss)	(856)	(227)	(345)	117	466	11	(1,644)	(1,636)	(1,787)	(1,917)	(6,984)	(7,144)	(5,037)
Interest expense (income)	2,150	548	644	535	389	2,116	827	431	432	432	2,122	1,734	1,741
Other, net	536	529	(366)	(355)	45	(147)	54	0	0	0	54	0	0
Pretax income	(3,542)	(1,304)	(623)	(63)	32	(1,958)	(2,525)	(2,067)	(2,219)	(2,349)	(9,160)	(8,878)	(6,778)
Taxes	0	0	(1,500)	0	0	(1,500)	0	0	0	0	0	0	0
Net income	(\$3,542)	(\$1,304)	\$877	(\$63)	\$32	(\$458)	(\$2,525)	(\$2,067)	(\$2,219)	(\$2,349)	(\$9,160)	(\$8,878)	(\$6,778)
Basic shares outstanding	6,923	6,172	1,013	9,280	11,802	5,816	11,814	11,864	11,914	11,964	11,889	12,089	12,289
Diluted shares outstanding	6,923	6,172	6,940	11,219	12,129	9,283	11,814	11,864	11,914	11,964	11,889	12,089	12,289
EPS diluted	(\$0.51)	(\$0.21)	\$0.13	(\$0.01) (1)	\$0.00	(\$0.05)	(\$0.21) (1)	(\$0.17)	(\$0.19)	(\$0.20)	(\$0.77)	(\$0.73)	(\$0.55)
EPS growth													
Revenue growth	9.8%	21.3%	25.8%	15.5%	15.1%	19.2%	21.6%	9.3%	11.3%	13.0%	13.6%	13.3%	25.0%
Volume (Ths)	10,064	2,792	3,019	3,024	3,115	11,950	3,100	3,411	3,417	3,520	13,449	15,466	17,012
Gross margin	58.9%	63.5%	64.5%	73.4%	72.3%	68.7%	62.4%	66.0%	66.0%	66.0%	65.1%	66.0%	66.0%
SG&A % of revenue	48.4%	55.2%	57.9%	56.0%	50.1%	54.6%	65.5%	61.0%	61.0%	62.0%	62.4%	58.0%	50.0%
R&D % of revenue	14.4%	12.2%	11.7%	15.6%	16.3%	14.1%	19.7%	27.0%	29.0%	29.0%	26.2%	29.2%	28.0%
Operating margin	(3.9%)	(3.8%)	(5.1%)	1.8%	5.9%	0.0%	(22.8%)	(22.0%)	(24.0%)	(25.0%)	(23.5%)	(21.2%)	(12.0%)
Tax rate	0.0%	0.0%	240.8%	0.0%	0.0%	76.6%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
D&A expense	\$663	\$106	\$116	\$132	\$158	\$512	\$150	\$98	\$98	\$101	\$447	\$443	\$554
EBITDA	(\$193)	(\$121)	(\$229)	\$249	\$624	\$523	(\$1,494)	(\$1,538)	(\$1,689)	(\$1,816)	(\$6,537)	(\$6,701)	(\$4,483)
Free cash flow													
Operating cash flow	(\$546)	\$180	\$853	(\$3,661)	(\$722)	(\$3,350)					(\$8,535)	(\$7,905)	(\$5,549)
CapX	(98)	(19)	(145)	(169)	(400)	(733)					(241)	(746)	(1,120)
Free cash flow	(\$644)	\$161	\$708	(\$3,830)	(\$1,122)	(\$4,083)					(\$8,776)	(\$8,651)	(\$6,668)

Guidance  
Revenue

\$28 - \$30M

## Notes:

Source: Company reports and Leerink Partners estimates

(1) Excludes change in fair value of Immumetrix consideration

## Disclosures Appendix

### Analyst Certification

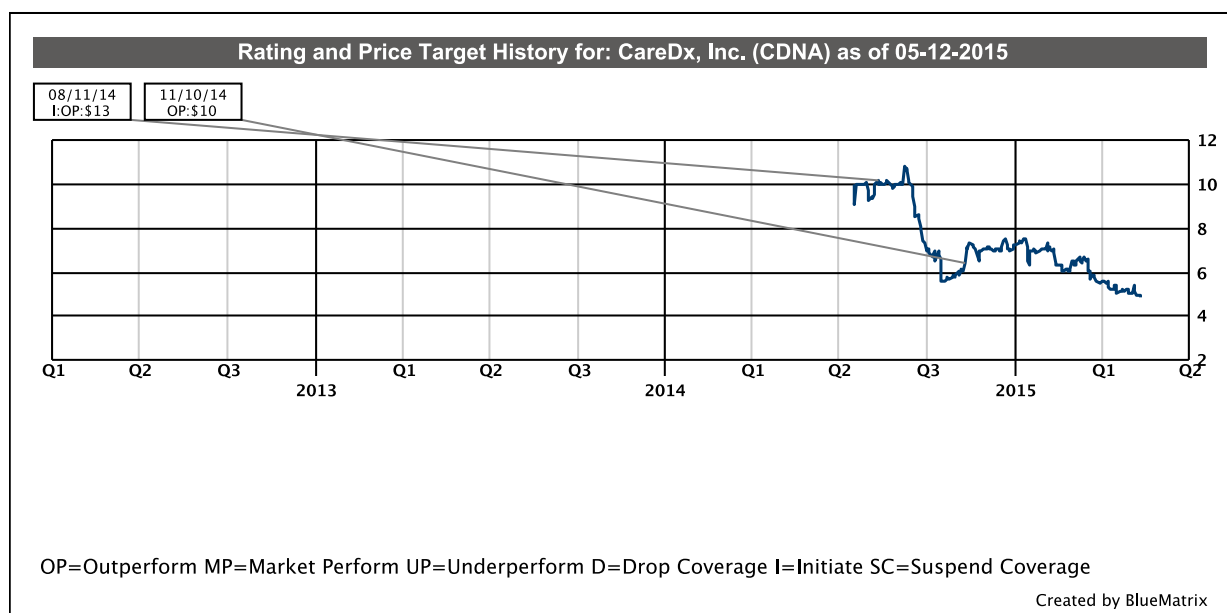
I, Dan Leonard, certify that the views expressed in this report accurately reflect my views and that no part of my compensation was, is, or will be directly related to the specific recommendation or views contained in this report.

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Distribution of Ratings/Investment Banking Services (IB) as of 03/31/15				
Rating	Count	Percent	IB Serv./Past 12 Mos.	
			Count	Percent
BUY [OP]	151	70.20	55	36.00
HOLD [MP]	64	29.80	2	3.00
SELL [UP]	0	0.00	0	0.00

## Explanation of Ratings

**Outperform (Buy):** We expect this stock to outperform its benchmark over the next 12 months.

**Market Perform (Hold/Neutral):** We expect this stock to perform in line with its benchmark over the next 12 months.

**Underperform (Sell):** We expect this stock to underperform its benchmark over the next 12 months. The degree of outperformance or underperformance required to warrant an Outperform or an Underperform rating should be commensurate with the risk profile of the company.

For the purposes of these definitions the relevant benchmark will be the S&P 600® Health Care Index for issuers with a market capitalization of less than \$2 billion and the S&P 500® Health Care Index for issuers with a market capitalization over \$2 billion.

## Important Disclosures

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Leerink Partners LLC makes a market in CareDx, Inc.

Leerink Partners LLC has acted as the manager for a public offering of CareDx, Inc. in the past 12 months.

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