

Reason for report:

FLASH NOTE**LIFE SCIENCE TOOLS AND DIAGNOSTICS****Roche Acquisition Strengthens Potential Competitor to ILMN, CDNA**

• **Bottom Line:** We believe Roche's proposed acquisition of privately held Ariosa strengthens a potential competitor to both ILMN (OP) and CDNA (OP), as Ariosa will presumably benefit from greater financial resources. However, the deal does not alter our view of the competitive landscape in either non-invasive prenatal testing (NIPT) or transplantation at this time.

S&P 500 Health Care Index:

802.07

Companies Highlighted:
AFFX, CDNA, ILMN

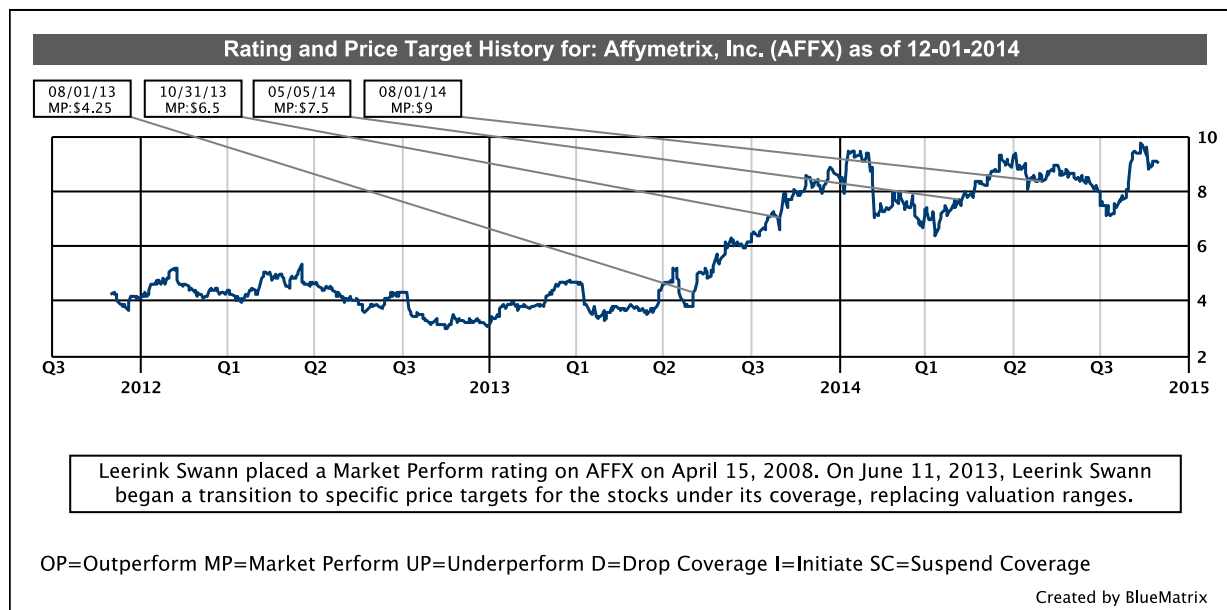
• **Roche continues to invest around ILMN; announces intention to acquire Ariosa.** Roche's proposed acquisition of Ariosa (terms undisclosed) continues its pattern of investing around ILMN in key areas of the nextgen sequencing (NGS) market. We believe the NIPT market is currently the largest of the clinical applications of NGS. While revenue from this market likely comprises <5% of ILMN's total, the clinical market does comprise the majority of ILMN's market opportunity and support for the stock's valuation. While Ariosa currently uses ILMN's instruments to perform its Harmony NIPT test, Ariosa had planned to transition its test to custom AFFX (MP) arrays in 2015. The success of this approach remains to be determined in the market; that said, one can safely assume Ariosa's efforts in this area will benefit from the greater financial resources of Roche.

• **Transplant market a potential pursuit.** Ariosa had presented proof-of-concept data a year ago on the use of donor cell free DNA (cfDNA) as a marker for evidence of organ rejection. While we believe pursuit of any programs in transplant would likely have been a low priority for stand-alone Ariosa, this area has historically been of greater interest to Roche. Roche management highlighted transplant (along with oncology and pregnancy) as areas where circulating cfDNA promises to provide early diagnostic information in the acquisition press release. Thus, Roche/Ariosa could more meaningfully compete with CDNA's efforts to develop cfDNA tests for monitoring organ transplant health. That said, CDNA is already well down the path of developing cfDNA tests for both heart and kidney transplant, and should enjoy a first-mover advantage.

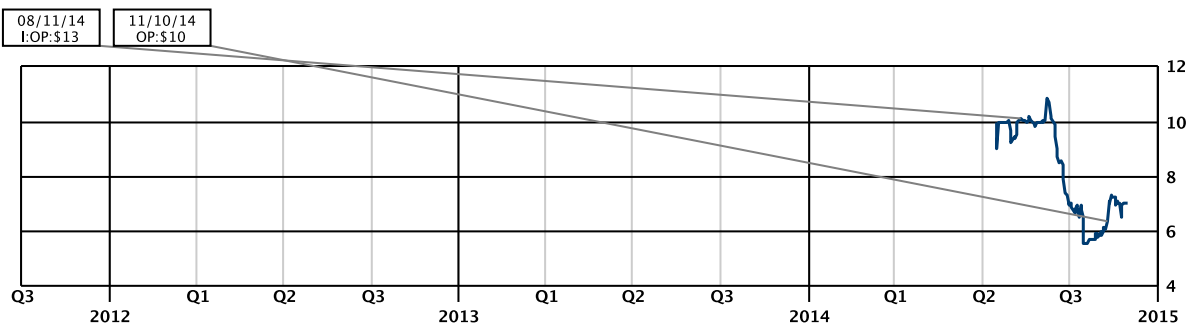
Disclosures Appendix

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.



Rating and Price Target History for: CareDx, Inc. (CDNA) as of 12-01-2014



OP=Outperform MP=Market Perform UP=Underperform D=Drop Coverage I=Initiate SC=Suspend Coverage

Created by BlueMatrix

Rating and Price Target History for: Illumina, Inc. (ILMN) as of 12-01-2014



Leerink Swann placed a Market Perform rating on ILMN on September 15, 2011. On June 11, 2013, Leerink Swann began a transition to specific price targets for the stocks under its coverage, replacing valuation ranges.

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Created by BlueMatrix

Distribution of Ratings/Investment Banking Services (IB) as of 09/30/14				
Rating	Count	Percent	IB Serv./Past 12 Mos.	
			Count	Percent
BUY [OP]	138	69.30	51	37.00
HOLD [MP]	61	30.70	2	3.30
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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In the past 12 months, the Firm has received compensation for providing investment banking services to CareDx, Inc. .

Leerink Partners LLC makes a market in Affymetrix, Inc., CareDx, Inc. and Illumina, 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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