April 1, 2015

OUTPERFORM

Reason for report:

EARNINGS

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LEERINK

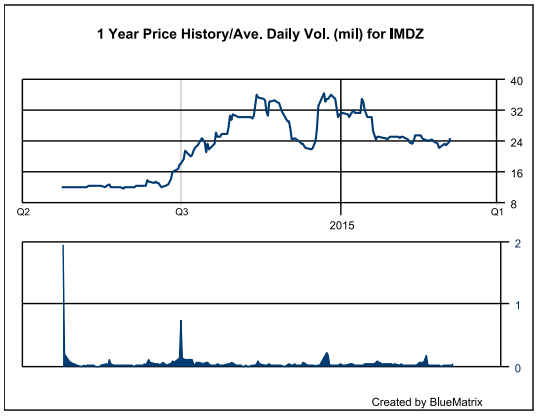
IMMUNE DESIGN CORP.

Top-line Results on Prime Boost Components Appear To Support the Immune Design

• **Bottom Line:** Along with its 4Q:14 financial report yesterday, IMDZ provided top-line results from its three Phase I trials of LV305 (NY-ESO-1-expressing dendritic cell targeting lentivirus vector), G305 (GLA [TLR4 agonist] + NY-ESO1 protein), and G100 (intratumoral GLA injection). While the upcoming ASCO presentations will provide a better opportunity for assessment, our impression is that there appears to be an initial proof of principle that LV305 and G305 generated distinct immunological responses (CD8+ and CD4+ T cells, respectively) and this supports the combination of the two as the intended product candidate. In addition, there appear to be additional clinical responses on G100, demonstrating single agent activity of GLA. In LV305 and G305 cohorts the best clinical responses were stable disease, and we believe this is in line with investor expectations. These data support a number of interesting further studies including the recently initiated Phase I dose-escalation trial of CMB305 (LV305+G305, or "Prime Boost") and the soon-to-be-initiated Phase I trial of LV305 + PD1 inhibitor (results from both potentially in 2015), as well as CMB305 + PD1 inhibitor combination to initiate in 2H:15, and we continue to see multiple catalysts for the stock in 2015. Our price target remains $40.

• **All 12 LV305 patients were sarcoma patients with little pre-existing immunity.** Although sarcoma patients have not been known to respond to immunotherapy, LV305 was able to generate CD8 T cells (cytotoxic T cells) from scratch, according to management. The G305 trial had a mixed bag of sarcoma, melanoma, ovarian and bladder patients and G305 was able to generate or significantly increase antigen-specific CD4 T cells as well as anti-NY-ESO-1 antibodies. Stable disease was observed in several patients across both trials, including one that had continuously progressing disease that became stable for many months following treatment, according to the company. At ASCO, we will be looking for more details on the quality and the quantity of CD8+ T cells, CD4+ T cell, Tregs, NK cells, and antibodies. Additional data will include the fold induction of CD8+ T cells, and the different subsets (memory and effectors) of CD8+ T cells generated as a result of immunization. IMDZ has noted that very little data will likely be made available in the ASCO abstracts.

Key Stats:	**(NASDAQ:IMDZ)**
S&P 600 Health Care Index:	**1,647.72**
Price:	**$21.11**
Price Target:	$40.00
Methodology:	DCF analysis and probability-weighted sales
52 Week High:	$40.13
52 Week Low:	$11.51
Shares Outstanding (mil):	16.9
Market Capitalization (mil):	$356.8
Cash Per Share:	$4.46
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	**0.0**	**$1.1**	**$3.5**	**$1.8**	**$6.4**	**($0.81)**	**($0.60)**	**($0.55)**	**($0.78)**	**($4.56)**	**NM**
2015E - New	**$1.6**	**$1.6**	**$1.6**	**$1.6**	**$6.4**	**($0.75)**	**($0.75)**	**($0.74)**	**($0.74)**	**($2.91)**	**NM**
2015E - Old	--	--	--	--	0.0	--	--	--	--	($3.23)	NM
2016E - New	**--**	**--**	**--**	**--**	**$6.4**	**--**	**--**	**--**	**--**	**($3.70)**	**NM**
2016E - Old	--	--	--	--	0.0	--	--	--	--	($2.18)	NM

Source: Company Information and Leerink Partners LLC Research
Revenues in millions. Quarterly EPS may not total to annual figure due to change in shares outstanding.

Please refer to pages 6 - 9 for Important Disclosures, Price Charts and Analyst Certification.

INVESTMENT THESIS

We rate IMDZ Outperform. IMDZ is a clinical-stage biotechnology company focused on immuno-therapies for cancer and has two proprietary platforms, ZVex and GLAAS, for activating essential cells of the immune system to enable recognition and elimination of cancer cells. Immune activation and cytotoxic T cell generation likely will have a role in future immunotherapy for cancer. Immuno-oncology is emerging as a new pillar of cancer treatment due to the potential for durable response and functional cure. Despite the remarkable success of checkpoint inhibitors such as PD-1/PDL1 antibodies, currently only a minority of unselected patients with a few types of tumors achieve an objective response. Both the proportion of patients (about half) without tumor-infiltrating lymphocytes (TILs) as well as the adaptive tumor immune escape mechanism of PDL1 expression in response to TILs argue for the need for immune activation to generate tumor-specific cytotoxic T cells. Based on preclinical data, MEDACorp key opinion leaders (KOLs) believe vaccines are among the most important combinations to pursue for checkpoint inhibitors. IMDZ has developed a novel approach for activating immune cells against specific and endogenous tumor antigens. Issues of historical cancer vaccines included limited CD8+ T cell engagement and T cell sequestration associated with ex vivo peptide loading and mineral oil carriers. IMDZ's novel technology of in vivo targeting of antigens specifically to dendritic cells may overcome these limitations. In addition, the second platform, GLAAS, can further strengthen the response via the activation of CD4+ T cells and provide an opportunity for a unique combination. MEDACorp key opinion leaders (KOLs) see IMDZ as one of the strongest early-stage immuno-oncology companies. We received excellent feedback from KOLs on the ZVex platform and preclinical data, GLAAS as a potent adjuvant, as well as the creditability and credentials of the management. There were some questions about NY-ESO-1 as a target, but overall KOLs were enthusiastic about the story. In light of the potential upside in the platforms being applied broadly to other cancer antigens as well as established partnerships with AZN and SNY in infectious diseases and food allergy, we see the valuation of IMDZ as inexpensive in comparison to other IO stories. Clinical data that began in 1Q:15 and will continue throughout 2015 could provide near-term catalysts.

The DSMBs for both trials determined that each agent was safe with no dose-limiting toxicities, allowing the CMB305 trial to investigate the highest doses of LV305. In the LV305 trial, six patients were treated at the lowest dose (three had 3 shots each, three had 4 shots each), three patients received the middle dose (4 shots each), and three had the high dose (4 shots each). In the G305 trial, three patients received 2 mcg, three received 5 mcg, and six received 12 mcg doses. While there were not enough patients in each cohort to determine which dose produced the best responses, all appeared to be safe. The first cohort in the CMB305 trial will receive 4 shots of the middle dose of LV305 (10^9 genomes) combined in alternation with 3 shots of 5 mcg of G305. If this dose proves to be safe, the second cohort will receive the high dose (10^10 genomes) of LV305 plus 5 mcg of G305 (same number of doses and schedule).

Additional evidence of activity was observed in the G100 trial beyond the complete response (CR) already reported. Our interpretation of management commentary is that there were additional responses, but it is not clear how many and whether they were partial or complete responses. The trial has completed treatment of 8 Merkel cell carcinoma (MCC) patients, two of whom had local-regional disease (both received monotherapy, one of whom had the previously reported CR). The remaining six all had metastatic disease and four of these received radiation therapy in addition to G100. Partial data from these patients will likely be available in the ASCO abstract. An ongoing IST in sarcoma (n=12) and a planned Phase I trial in NHL (n=30) are also both investigating G100 in combination with local radiation.

Model update: IMDZ reported 4Q and FY2014 EPS of ($0.78) and ($4.56), respectively. The company guided to FY2015 net use of cash in operating activities of $33-37M and expects to end the year with $38-42M in cash and cash equivalents, which it believes will be sufficient to fund operations into 2017. We have updated our model to account for these changes.

IMDZ Upcoming Catalysts

Drug	Timing	Description
G100 (GLA)	2Q:15	Data from Phase I Merkel cell carcinoma trial (n=10) - submitted to ASCO
	2Q:15	Initiate Phase I trial in combo w/radiation in NHL (n=30)
	2015	IST in combo w/radiation in Sarcoma (n=12) continues
G305 (GLAAS + NY-ESO1 protein)	2Q:15	Data from dose escalation (n=12) - submitted to ASCO
LV305 (Zvex + NY-ESO1 RNA)	1Q:15	Initiate Phase I Expansion (n=32)
	2Q:15	Data from dose-escalation (n=12) - submitted to ASCO
	2H:15	Data from expansion (n=32)
+ anti-PD-1	1Q:15	Initiate Phase I in NR melanoma (n=20)
	2H:15	Data from NR melanoma study (n=20)
CMB305 (LV305 + G305)	1Q:15	Initiate Phase I Dose-escalation (n=6 to 12)
	2Q:15	Initiate Phase I Expansion (n=32)
	2H:15	Data from dose-escalation
	2H:15	Initial data from expansion
	2H:15	Initiate Randomized Phase II
+ checkpoint inhibitor	2H:15	Initiate Randomized Phase II in high incidence tumors
	2H:15	Initiate Randomized Phase II in sarcoma

Source: Company Reports and Leerink Partners

IMDZ Pipeline

Stage of Development	Current Status/Upcoming Developments
G100 (GLA)	
Phase I	Data from Phase I MCC trial (n=10) expected at ASCO
G305 (GLAAS + NY-ESO1 protein)	
Phase I	Data from Phase I dose escalation (n=12) expected at ASCO
LV305 (Zvex + NY-ESO1 RNA)	
Phase I	Data from Phase I dose escalation (n=12) expected at ASCO
CMB305 (LV305 + G305)	
Preclinical	Initiate Phase I Dose-escalation expected in 1Q:15

Source: Company Reports and Leerink Partners

VALUATION

Our price target is $40 a share based on a DCF analysis and probability-weighted sales for G100 in Merkel cell carcinoma and low-grade non-Hodgkin's lymphoma (10-30% probability), and for CMB305 in synovial sarcoma (20% probability), melanoma (10% probability), NSCLC (15% probability), and ovarian cancer (10% probability) with a 10% discount rate. We believe this discount rate is appropriate as we use probability-weighted sales for the products. In addition, we also assigned $100M to partnered programs but no value for potential products beyond NY-ESO-1.

RISKS TO VALUATION

- Early stage of development with uncertainties in efficacy and safety;
- Unknown future landscape in immunotherapy for cancer;
- Initial target (NY-ESO-1) remains to be validated;
- Ability to scale up and manufacture lentivirus as a product;
- Lack of manufacturing capability and reliance on third-party manufacturers;
- Competition from immunotherapeutic approaches.

Immune Design
(In '000s, except per share items)

	1QA	2QA	3QA	4QA	2014A	1QE	2QE	3QE	4QE	2015E	2016E	2017E	2018E	2019E	2020E
REVENUE:															
CMB305 (POS adjusted sales)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	13,468
G100 (POS adjusted sales)	-	-	-	-	-	-	-	-	-	-	-	-	11,723	22,628	25,923
Other Product Sales	25	64	44	748	881	220	220	220	220	881	881	881	881	881	881
Product Development and Licensing Agreements		1,000	3,500	-	4,500	1,125	1,125	1,125	1,125	4,500	4,500	4,500	4,500	4,500	4,500
Contracts and Grants					-					-	-	-	-	-	-
Product Royalties					-					-	-	-	-	-	-
Milestone payments					-					-	-	-	-	-	-
Other, net				1,052	1,052	263	263	263	263	1,052	1,052	1,052	1,052	1,052	1,052
Total Revenue	**25**	**1,064**	**3,544**	**1,800**	**6,433**	**1,608**	**1,608**	**1,608**	**1,608**	**6,433**	**6,433**	**6,433**	**18,156**	**29,061**	**45,824**
OPERATING EXPENSES:															
Cost of product Sales	14	18	31	575	638								3,631	5,812	9,165
Research and Development	4,078	3,883	5,988	8,797	22,746	8,841	8,885	8,930	8,974	35,630	49,882	74,823	97,270	102,134	107,240
Sales General and Adminstrative	1,446	1,850	4,082	5,549	12,927	5,577	5,605	5,633	5,661	22,475	22,924	62,924	100,679	136,923	150,616
Royalties															
Amortization of Acquired Intangible Assets															
Total Operating Expense	**5,538**	**5,751**	**10,101**	**14,921**	**36,311**	**14,418**	**14,490**	**14,562**	**14,635**	**58,105**	**72,806**	**137,747**	**201,580**	**244,869**	**267,021**
Operating Loss	**(5,513)**	**(4,687)**	**(6,557)**	**(13,121)**	**(29,878)**	**(12,809)**	**(12,882)**	**(12,954)**	**(13,027)**	**(51,672)**	**(66,373)**	**(131,314)**	**(183,424)**	**(215,808)**	**(221,197)**
Investment, Interest and Other Income, Net	1		2	1	4										
Change in fair value of convertible preferred stock warrant liability	(2,711)	(1,439)	(127)	0	(4,277)										
Net Income before Taxes	(8,223)	(6,126)	(6,682)	(13,120)	(34,151)	(12,809)	(12,882)	(12,954)	(13,027)	(51,672)	(66,373)	(131,314)	(183,424)	(215,808)	(221,197)
Income tax rate%															
Income Tax							-								
Net Loss	**(8,223)**	**(6,126)**	**(6,682)**	**(13,120)**	**(34,151)**	**(12,809)**	**(12,882)**	**(12,954)**	**(13,027)**	**(51,672)**	**(66,373)**	**(131,314)**	**(183,424)**	**(215,808)**	**(221,197)**
Earnings per share	**(0.81)**	**(0.60)**	**(0.55)**	**(0.78)**	**(4.56)**	**(0.75)**	**(0.75)**	**(0.74)**	**(0.74)**	**(2.91)**	**(3.70)**	**(4.36)**	**(4.33)**	**(4.09)**	**(4.15)**
Shares Used in Calculating Basic and Diluted Net Loss per Share(pro forma)	10,139	10,240	12,129	16,879	7,495	17,047	17,218	17,390	17,564	17,740	17,917	30,096	42,397	52,821	53,349
Dilutive shares	10,139	10,240	12,129	18,786	9,402	18,974	19,163	19,355	19,548	19,744	19,941	20,141	32,342	42,666	43,092

Source: Company Reports and Leerink Partners Estimates

Disclosures Appendix

Analyst Certification

I, Howard Liang, Ph.D., 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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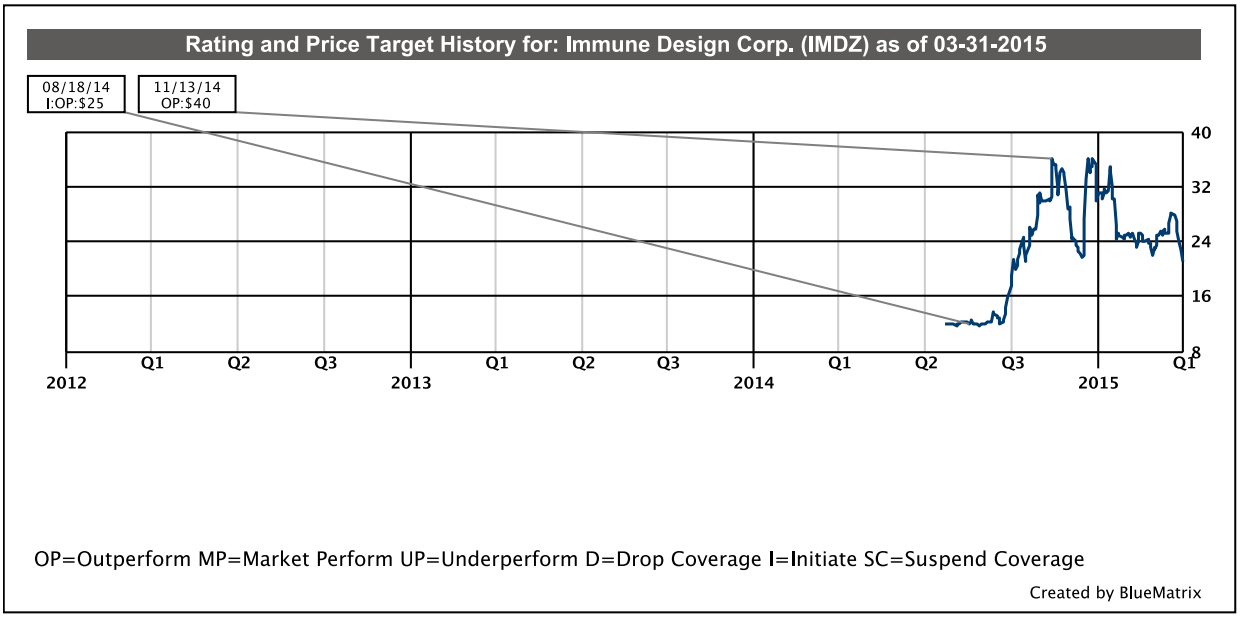
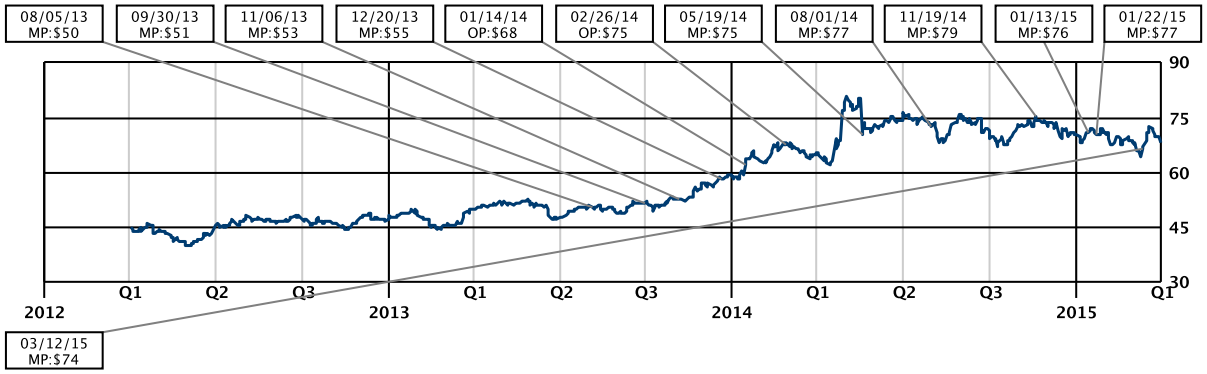


Rating and Price Target History for: AstraZeneca PLC (AZN) as of 03-31-2015

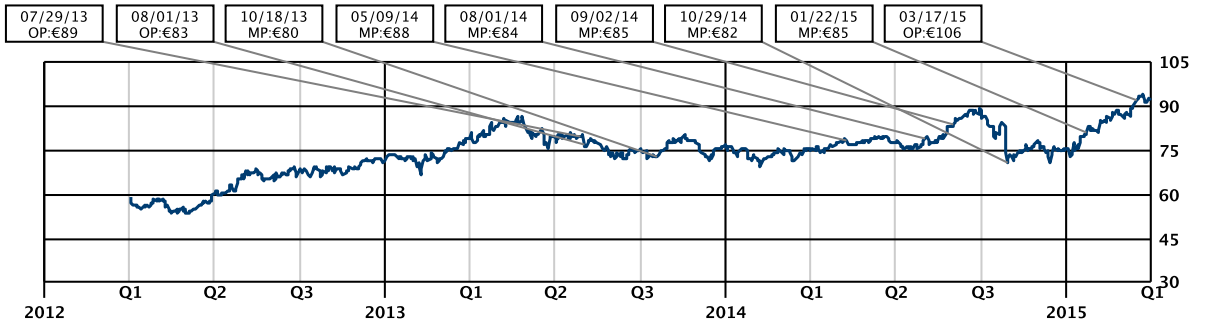


Leerink Swann initiated coverage of AZN with a Market Perform rating on Sept. 30, 2009. On June 11, 2013, Leerink Swann began a transition to specific price targets for the stocks under its coverage, replacing valuation ranges.

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

Created by BlueMatrix

Rating and Price Target History for: Sanofi (SAN FP) as of 03-31-2015



Leerink Swann initiated coverage of SAN FP with an Outperform rating on February 26, 2010. On June 11, 2013, Leerink Swann began a transition to specific price targets for the stocks under its coverage, replacing valuation ranges.

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

Created by BlueMatrix

Distribution of Ratings/Investment Banking Services (IB) as of 12/31/14				
			IB Serv./Past 12 Mos.	
Rating	Count	Percent	Count	Percent
BUY [OP]	150	70.00	60	40.00
HOLD [MP]	64	30.00	1	2.00
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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MEDACorp is a network of healthcare professionals, attorneys, physicians, key opinion leaders and other specialists accessed by Leerink and it provides information used by its analysts in preparing research.

In the past 12 months, the Firm has received compensation for providing investment banking services to Immune Design Corp. .

Leerink Partners LLC makes a market in Immune Design Corp.

Leerink Partners LLC is willing to sell to, or buy from, clients the common stock of AstraZeneca PLC and Sanofi on a principal basis.

Leerink Partners LLC has acted as the manager for a public offering of Immune Design Corp. in the past 12 months.

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