November 13, 2014

WELLS FARGO SECURITIES

Equity Research

Immune Design Corp.

IMDZ: Q3--Maintaining Differentiated Immuno-Oncology Approach

Outperform / V

Sector: Biotechnology
Market Weight

- **Summary**: On 11/12, IMDZ reported Q3 2014 results. The company's clinical development programs are on track, with LV305 and G305 data expected to read out in 1H15, and the combination regimen, CMB305, received a regulatory green light to initiate patient enrollment in 1Q15 (data 2H15). We remain positive on the company's ability to generate immune responses against tumors with a more physiologic, "off-the-shelf," prime-boost strategy we believe is differentiated. While initial 1H15 data from LV305 and G305 may be too early to definitively outline its promise, it could provide initial hints of proof of principle, and we believe several high profile scientific reports over the last several months provide indirect support that IMDZ's approach indeed holds significant promise in cancer immunotherapy. Based on our growing confidence in the probability of success for IMDZ's ZVex/GLAAS-based candidates over the long term, we are increasing our valuation range to $35-37 from $17-18, and though the stock's recent run-up makes valuation somewhat less compelling, we see room for additional appreciation as T-cell based immunotherapy technology, and IMDZ's programs, continue to mature. Adjusting 2014E/2015E EPS to -$2.44/-$2.07 from -$2.03/-$1.39.
- **Financials:** Q3 2014 revenues were higher than we had estimated at $3.5MM, primarily from the licensing deal with Sanofi recently announced, though R&D and SG&A have also stepped up significantly during the quarter. The company plans to provide guidance in January as they continue to evaluate their development plans.
- **LV305/G305 trials remain on track, as well as their novel combination CMB305**. LV305 and G305 programs currently enrolling patients in 5 types of cancers are on track to complete enrollment by end-2014 and possible completion by end-Q1 2015. Data disclosure will depend on the maturity of the results, though it appears ASCO will be the preferred venue. CMB305's (combination of the two therapies) IND has been cleared and the company plans to start enrolling patients in Q1, with possible data by 2H15.
- ***(continued on the next page)***

Valuation Range: $35.00 to $37.00 from $17.00 to $18.00
Our valuation is based on a blend of 30x of probability-adjusted 2025E EPS and 5x of 2025E probability-adjusted sales. Risks include ZVex's failure to show clinical efficacy, a safety signal, competition, and manufacturing.

Investment Thesis:
We believe IMDZ is undervalued based on the promise of ZVex/GLAAS as novel immunotherapy platforms for cancers.

Valuation Range Change

	2013A	2014E		2015E	
EPS		**Curr.**	**Prior**	**Curr.**	**Prior**
Q1 (Mar.)	NE	($0.81) A	NC	NE	
Q2 (June)	NE	(0.60) A	NC	NE	
Q3 (Sep.)	NE	**(0.55) A**	**(0.40)**	NE	
Q4 (Dec.)	NE	**(0.53)**	**(0.36)**	NE	
FY	($2.28)	**($2.44)**	**(2.03)**	**($2.07)**	**(1.39)**
CY	($2.28)	($2.44)		($2.07)	
FY P/EPS	NM	NM		NM	
Rev.(MM)	$2	$5		$0	

Source: Company Data, Wells Fargo Securities, LLC estimates, and Reuters
NA = Not Available, NC = No Change, NE = No Estimate, NM = Not Meaningful
V = Volatile, = Company is on the Priority Stock List

Ticker	IMDZ
Price (11/12/2014)	$30.67
52-Week Range:	$11-34
Shares Outstanding: (MM)	15.8
Market Cap.: (MM)	$484.6
S&P 500:	2,038.25
Avg. Daily Vol.:	35,288
Dividend/Yield:	$0.00/0.0%
LT Debt: (MM)	$0.0
LT Debt/Total Cap.:	0.0%
ROE:	NM
3-5 Yr. Est. Growth Rate:	5.0%
CY 2014 Est. P/EPS-to-Growth:	NM
Last Reporting Date:	11/12/2014 Before Open

Source: Company Data, Wells Fargo Securities, LLC estimates, and Reuters

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Please see page 5 for rating definitions, important disclosures and required analyst certifications
All estimates/forecasts are as of 11/13/14 unless otherwise stated.

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Together we'll go far

Continued from front page

- **We expect initial data could provide some hints of proof-of-principle**. While ZVex-based immunotherapy shares some similarities with CART, we believe IMDZ's upcoming data should be evaluated with certain caveats, including (1) it is unlikely that initial CTL response/tumor killing effect will be as rapid, as it may take longer for the immune system to start building a physiologic anti-tumor response (vs. CART's response being dependent on how many CART cells are transplanted), and (2) effects in solid tumors, particularly in patients with advanced malignancies, may not look as dramatic as in hematologic tumors, where CART has been tested. The company plans to conduct extensive biomarker/cellular analyses to determine the quantity and quality of immune response, and we believe these analyses of T-cell populations, as well as possible hints of dose-dependent clinical anti-tumor activity, would help provide initial validation of the approach.

- **Several scientific reports over the last several months have increased enthusiasm for the field in general and provided some indirect support for the platform's promise.** There were several high profile scientific publications for clinical trials involving Novartis's and Kite's CART technologies, which continue to validate the immunotherapy paradigm that harnessing the host's immune system can provide a powerful tool against cancer. Additionally, specifically related to IMDZ's NY-ESO-1 target, a competing company, Adaptimmune has demonstrated that synovial sarcoma patients had an impressive 80% response rate to Adaptimmune's NY-ESO-1 recombinant T cells generated autologously from patients. We believe these data strongly validate IMDZ's tumor antigen NY-ESO-1 approach as well as its promise in various solid tumors, particularly in synovial sarcoma--which IMDZ is also pursuing.

Upcoming Milestones

Product	Event	Timeline
LV305	Ph.I safety and immunogenicity data	1H15
G305	Ph.I safety and immunogenicity data	1H15
CMB305	Initiate ph.I study	end-2014
	Ph.I safety and immunogenicity data	2H15
	Initiate ph.II study	4Q15
G100	Complete Merkel cell carcinoma study	1Q15
	Initiate NHL study	2Q15

Source: Company reports and Wells Fargo Securities, LLC estimates

Product Pipeline

Product (partner)	Indication / mechanism	Status
LV305	Soft tissue sarcomas, melanoma, ovarian cancer, NSCLC, breast cancer	Phase I
G305	Soft tissue sarcomas, melanoma, ovarian cancer, NSCLC, breast cancer	Phase I
CMB305	Soft tissue sarcomas, melanoma, ovarian cancer, NSCLC	entering ph.I
G100	Merkel cell carcinoma	Phase I
GLA (AZN/MedImmune)	Three infectious disease indications (MEDI7510 - RSV)	Phase I
GLA (Medicago)	Pandemic influenza	Phase I
GLS (Sanofi)	Allergy	Preclinical
G103 (Sanofi)	HSV vaccine	Preclinical

Source: Company reports and Wells Fargo Securities, LLC

Immune Design (IMDZ)
Statement of Operations (Income Statement)

(in thousands except per share amounts)

	2012A	2013A	1QA	2QA	3QA	4QE	2014E	2015E	2016E	2017E	2018E	2019E	2020E	2021E	2022E	2023E	2024E	2024E
Revenues																		
Licensing revenues (1)	$876	$729	$0	$1,000	$3,500	$0	$4,500	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Product sales / royalties (2)	1,877	870	25	64	44	50	183	201	221	244	268	295	324	357	392	432	475	522
Other, net (3)	207	-	-	-	-	-	-	-	-	-	10,000	10,000	35,000	35,000	10,000	10,000	10,000	10,000
U.S. sales of CMB305 (prob-adjusted)	-	-	-	-	-	-	-	-	-	-	2,855	10,888	45,920	84,747	136,123	187,814	241,150	300,492
Royalties on ex-U.S. sales of CMB305 (prob-adjusted)											-	887	3,383	9,660	19,649	33,633	44,555	55,685
Total revenues	**$2,960**	**1,599**	**25**	**1,064**	**3,544**	**50**	**4,683**	**201**	**221**	**244**	**13,123**	**22,069**	**84,628**	**129,763**	**166,165**	**231,878**	**296,179**	**366,698**
Expenses																		
Cost of products sold	1,518	669	14	18	31	38	101	151	166	183	658	1,963	7,590	12,979	20,713	28,496	36,528	45,465
Research and development	8,604	11,554	4,078	3,883	5,988	5,200	19,149	23,936	33,511	36,862	40,548	41,764	43,017	44,308	45,637	47,006	48,416	49,869
Selling, general and administrative	3,713	4,433	1,446	1,850	4,082	3,800	11,178	16,767	17,438	22,669	38,537	50,098	57,613	63,375	65,910	68,546	71,288	74,139
Total operating expenses	**13,835**	**16,656**	**5,538**	**5,751**	**10,101**	**9,038**	**30,428**	**40,854**	**51,115**	**59,713**	**79,743**	**93,826**	**108,221**	**120,662**	**132,259**	**144,048**	**156,233**	**169,474**
Operating income/loss	**(10,875)**	**(15,057)**	**(5,513)**	**(4,687)**	**(6,557)**	**(8,988)**	**(25,745)**	**(40,653)**	**(50,893)**	**(59,470)**	**(66,620)**	**(71,757)**	**(23,593)**	**9,101**	**33,905**	**87,830**	**139,946**	**197,225**
Interest and other income	35	37	1	-	2	3	6	89	103	98	105	76	56	77	88	137	236	385
Change in fair value of convertible preferred stock warrant	-	(955)	(2,711)	(1,439)	(127)	-	(4,277)	-	-	-	-	-	-	-	-	-	-	-
(Loss) income before benefit from income taxes	**(10,840)**	**(15,975)**	**(8,223)**	**(6,126)**	**(6,682)**	**(8,984)**	**(30,015)**	**(40,564)**	**(50,790)**	**(59,372)**	**(66,515)**	**(71,680)**	**(23,537)**	**9,178**	**33,993**	**87,968**	**140,183**	**197,610**
Benefit (expense) from income taxes															($680)	($2,639)	($7,009)	($13,833)
Net (loss) income	**(10,840)**	**(15,975)**	**(8,223)**	**(6,126)**	**(6,682)**	**(8,984)**	**(30,015)**	**(40,564)**	**(50,790)**	**(59,372)**	**(66,515)**	**(71,680)**	**(23,537)**	**9,178**	**33,313**	**85,329**	**133,174**	**183,777**
Earnings Per Share (GAAP)	**($30.43)**	**($2.28)**	**($0.81)**	**($0.60)**	**($0.55)**	**($0.53)**	**($2.44)**	**($2.07)**	**($2.26)**	**($2.34)**	**($2.58)**	**($2.74)**	**($0.80)**	**$0.29**	**$1.04**	**$2.62**	**$4.04**	**$5.51**
Shares Outstanding (Basic)	356	7,008	10,139	10,139	12,129	16,861	12,317	19,594	22,494	25,394	25,794	26,194	29,594	29,994	30,394	30,794	31,194	31,594
Shares Outstanding (Diluted)	356	7,008				18,611	22,086	21,344	24,244	27,144	27,544	27,944	31,344	31,744	32,144	32,544	32,944	33,344

Source: Company reports and Wells Fargo Securities, LLC estimates

Note: 2014 quarterly EPS do not equal annual EPS due to calculation of EPS based on diluted vs. basic shares
(1) related to MedImmune collaboration

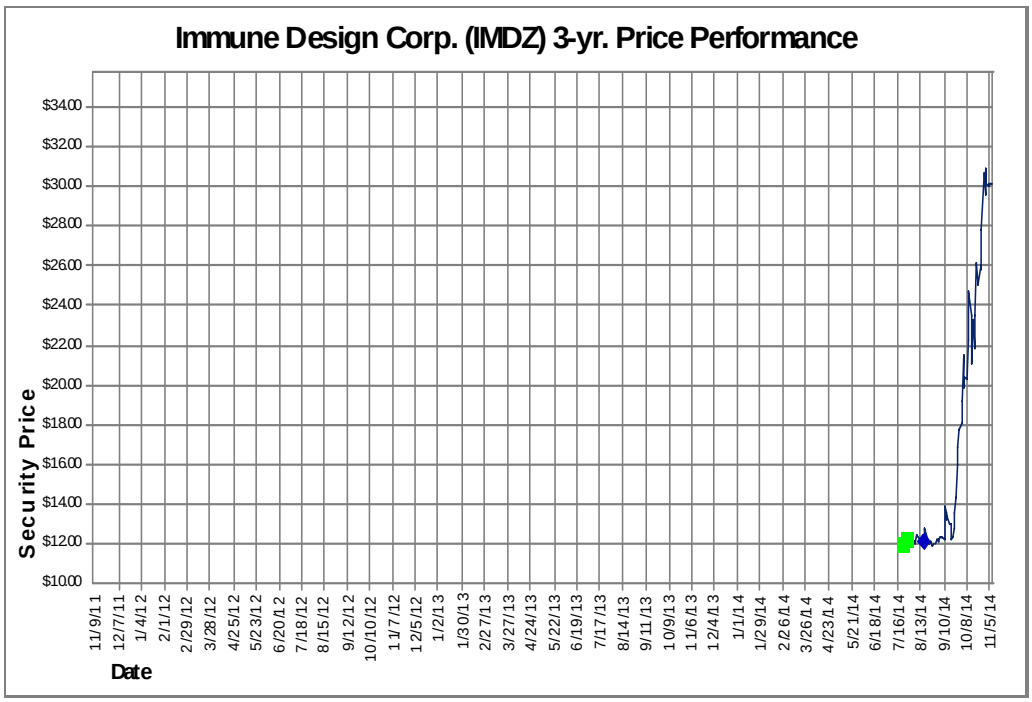
(2) Reflects sales of GLAAS to collaborators

(3) Includes amortization of potential upfront for ex-U.S. CMB305 partnership, potential milestones

Company Description:

Immune Design Corporation (IMDZ) is a clinical stage biopharmaceutical company, headquartered in San Francisco, California and Seattle, Washington, developing novel immunotherapies for cancer and infectious diseases. IMDZ is developing an in vivo targeting approach to specifically target key regulatory immune cells called dendritic cells to enable the body's own immune system to fight cancer and other diseases. IMDZ's technology platform consists of two main components, IMDZVex ("ZVex") and GLAAS. ZVex is a virus-based cell targeting vector that specifically delivers tumor (or other immunogen) antigen of interest to DCs such that robust induction of cytotoxic T-cells in effect fights the disease. There are several pipeline products under clinical development: LV305 (ZVex-NY-ESO-1) and G305 (GLAAS-NY-ESO-1) in phase I study for solid tumors, CMB305 (ZVex-NY-ESO-1 plus GLAAS) expected to enter the clinic end-2014, and G100 (GLAAS) in phase I study in Merkel cell carcinoma.

Required Disclosures



	Date	Publication Price ($)	Rating Code	Val. Rng. Low	Val. Rng. High	Close Price ($)
❐	7/24/2014		IPO at $12.00			
	8/18/2014		Abrahams, M.D.			
◆	8/18/2014	12.41	1	17.00	18.00	12.13

Source: Wells Fargo Securities, LLC estimates and Reuters data

Symbol Key

▼	Rating Downgrade	◆	Initiation, Resumption, Drop or Suspend
▲	Rating Upgrade	■	Analyst Change
●	Valuation Range Change	❐	Split Adjustment

Rating Code Key

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2	Market Perform/Hold	NR	Not Rated
3	Underperform/Sell	NE	No Estimate

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IMDZ: Risks include ZVex's failure to show clinical efficacy, a safety signal, competition, and manufacturing.

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