December 1, 2014

WELLS FARGO SECURITIES

Equity Research

Immune Design Corp.

IMDZ: Management Meeting Highlights
Remaining Cutting Edge In IO, Without Cutting Corners

Outperform / V

Sector: Biotechnology
Market Weight

Company Note

- **Summary:** On 12/1, we had the opportunity to spend the day with IMDZ's senior management. Coming out of our discussions, we continue to believe that IMDZ has one of the most interesting and differentiated approaches to cancer immunotherapy, and that they are taking a rational, methodical approach grounded in the science that should optimize the potential of products stemming from their platform to become important components of the future solid tumor treatment paradigm. Though shares have appreciated of late, we still see the potential for long-term appreciation as the early-stage programs mature.

- **Ongoing early-stage studies proceeding on track, with safety continuing to look good so far.** The company's phase I dose-escalation studies of LV305 (dendritic-cell targeted tumor-antigen based gene therapy) and G305 (TLR4 agonist plus NY-ESO-1 protein) in advanced NY-ESO-1 positive solid tumors are continuing on track, with enrollment completion expected by year-end. Our sense was that patients in the LV305 study are mostly synovial sarcoma patients, while for G305 are primarily ovarian cancer and melanoma patients. The company still plans to present data at ASCO 2015, which we believe will be the next key datapoint for the programs. On safety, we believe FDA's recent clearance of the IND for the combination of the two agents, termed CMB305, speaks to the likely benign safety profile being observed to date clinically and preclinically, and of note IMDZ said they did not see any neutralizing antibodies against the viral vector envelope in the initial cohort, which enabled them to increase to four administrations of LV305--which based on emerging preclinical data could help augment immune responses.

- *(Continued on the next page)*

	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	NC	NE	
Q4 (Dec.)	NE	(0.53)	NC	NE	
FY	($2.28)	($2.44)	NC	($2.07)	NC
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

Valuation Range: $35.00 to $37.00
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.

Ticker	IMDZ
Price (12/01/2014)	$28.91
52-Week Range:	$11-37
Shares Outstanding: (MM)	15.8
Market Cap.: (MM)	$456.8
S&P 500:	2,053.44
Avg. Daily Vol.:	29,797
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

Brian Abrahams, M.D., Senior Analyst
(212) 214-8060
brian.abrahams@wellsfargo.com
Matthew J. Andrews, Senior Analyst
(617) 603-4218
matthew.j.andrews@wellsfargo.com
Shin Kang, Ph.D., Associate Analyst
(212) 214-5036
shin.kang@wellsfargo.com
Ronald Hsu, M.D., Associate Analyst
(212) 214-5064
ronald.hsu@wellsfargo.com

Please see page 3 for rating definitions, important disclosures and required analyst certifications

All estimates/forecasts are as of 12/01/14 unless otherwise stated.

Wells Fargo Securities, LLC does and seeks to do business with companies covered in its research reports. As a result, investors should be aware that the firm may have a conflict of interest that could affect the objectivity of the report and investors should consider this report as only a single factor in making their investment decision.

Together we'll go far

Continued from front page

- **Profile of immune responses key to assess potential of LV305.** The company noted that the phase I enrollment criteria is designed to help optimize efficacy, by including patients with non-bulky but measurable disease, who are prior treatment failures but are more likely to have intact immune systems. IMDZ will assess CT scans of patients on LV305 before and after treatment, and every 2 months thereafter, to gauge response. Given the small study size, lack of boosting with G305, and nature of the mechanism, which produces tumor-antigen specific T-cells in a more gradual, physiologic manner, we would not necessarily look for the rapid and robust clinical responses observed recently with CAR-T therapies in hematologic malignancies and for re-engineered T-cells in solid tumors like synovial sarcoma; instead, we believe some signals such as stabilization of disease progression would be encouraging indicators of activity. Even more important, in our view, will be the immune response data, and the degree to which tumor-specific CTLs are upregulated. While the benchmarks for this are not that well-established, and many assays will be explored, IMDZ noted early data from other companies that have explored CD8+ T-cell upregulation (Celldex, Okairos, etc.) could provide some context.

- **Synovial sarcoma remains highest priority indication to pursue.** Following the initial dose-escalation cohort of LV305, IMDZ plans to further expand the study, exploring sarcoma, ovarian cancer, NSCLC, and melanoma in H1 2015, and initiate a phase I study of their combination CMB305. For the phase II of CMB305, synovial sarcoma remains the company's first choice of indications. While small (3,000 patients), we believe the high (80-100%) prevalence of NY-ESO-1 positivity could make this indication a good proving grounds for the company's technology, and note the company remains in preliminary discussions with FDA as to whether a phase II could potentially be registrational given its rarity.

- **Increasing emphasis on combinations with anti-PD(L)-1 antibodies.** The company believes T-cell induction with approaches like LV/CMB305 can address a reason for lack of response many patients have to PD(L)-1 inhibition, and their view is that the science suggests benefits for adding PD(L)-1 or other checkpoint inhibitors once the immune system is upregulated. We sensed a high degree of enthusiasm for exploring such combinations clinically and sensed they have been active in discussions for potential clinical collaboration with PD(L)-1 companies, something which phase II start could be paced by. Although the design is still being finalized, the phase II synovial sarcoma study could potentially explore a PD(L)-1 inhibitor +/- CMB305. A NSCLC phase II could also combine CMB305 with a PD(L)-1 inhibitor; the company noted that their recent biopsy work shows a reasonable proportion (18%) of NSCLC patients are NY-ESO-1 positive, we believe confirming this is another indication worth pursuing that could be a meaningful revenue driver long term.

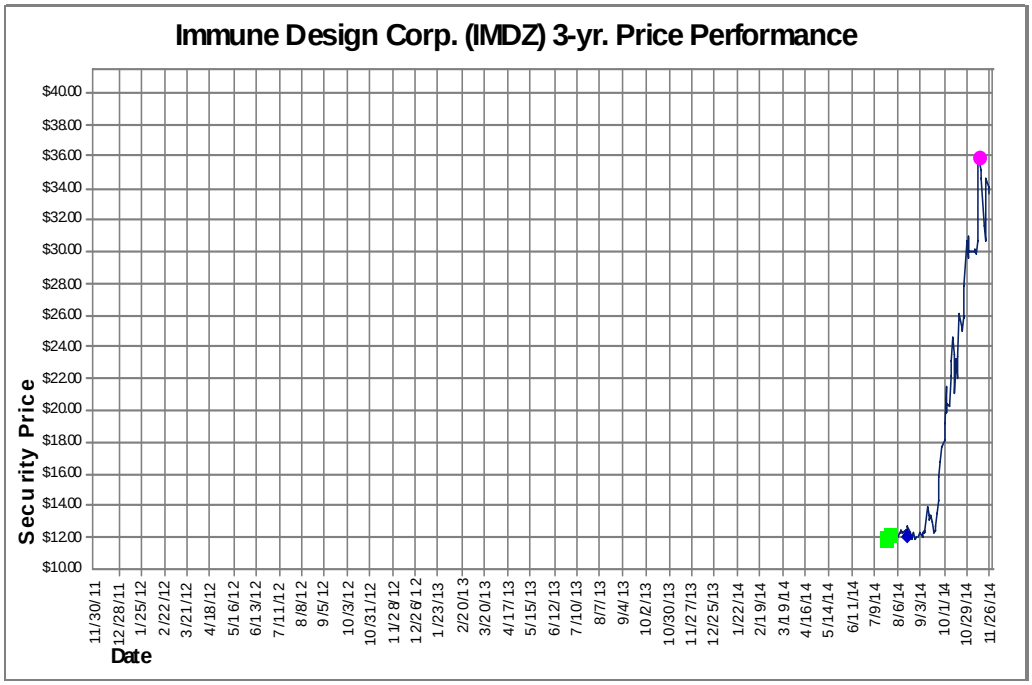
- **Exploration of ways to further improve immune stimulation illustrates flexibility of technology.** Beyond the current programs, we sensed IMDZ is continuing to closely follow the science and explore ways in which they can further improve the potency of the vector--which could be important in further optimizing activity if dose-dependent efficacy is observed in studies of LV305/CMB305. Approaches could potentially include increasing antigen expression such as through strengthening of the promoter/enhancer in the vector or using multi-cassette strategy; increasing immunogenicity such as by expressing a co-stimulatory antigen such as CD40L or IL-12 alongside the antigen; or increasing dendritic cell activation. IMDZ could also theoretically pursue a "prime-pull" concept in which the TLR4 agonist could be injected intratumorally to locally boost the systemic tumor-specific CTL generation and draw the CTLs towards the tumor locale via chemokine expression. Longer term, other tumor antigens beyond NY-ESO-1 could be explored, expanding the potential applicability. While these approaches are all theoretical at this point, we believe they illustrate the power, and potential flexibility, of IMDZ's technology to optimize cancer immunotherapy, guided by the science.

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.

IO stands for immuno-oncology.

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
●	11/13/2014	30.67	1	35.00	37.00	35.97

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

1	Outperform/Buy	SR	Suspended
2	Market Perform/Hold	NR	Not Rated
3	Underperform/Sell	NE	No Estimate

Additional Information Available Upon Request

I certify that:
1) All views expressed in this research report accurately reflect my personal views about any and all of the subject securities or issuers discussed; and
2) No part of my compensation was, is, or will be, directly or indirectly, related to the specific recommendations or views expressed by me in this research report.

- Wells Fargo Securities, LLC maintains a market in the common stock of Immune Design Corp.
- Wells Fargo Securities, LLC or its affiliates managed or comanaged a public offering of securities for Immune Design Corp. within the past 12 months.
- Wells Fargo Securities, LLC or its affiliates received compensation for investment banking services from Immune Design Corp. in the past 12 months.
- Immune Design Corp. currently is, or during the 12-month period preceding the date of distribution of the research report was, a client of Wells Fargo Securities, LLC. Wells Fargo Securities, LLC provided investment banking services to Immune Design Corp.

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

Wells Fargo Securities, LLC does not compensate its research analysts based on specific investment banking transactions. Wells Fargo Securities, LLC's research analysts receive compensation that is based upon and impacted by the overall profitability and revenue of the firm, which includes, but is not limited to investment banking revenue.

STOCK RATING

1=Outperform: The stock appears attractively valued, and we believe the stock's total return will exceed that of the market over the next 12 months. BUY
2=Market Perform: The stock appears appropriately valued, and we believe the stock's total return will be in line with the market over the next 12 months. HOLD
3=Underperform: The stock appears overvalued, and we believe the stock's total return will be below the market over the next 12 months. SELL

SECTOR RATING

O=Overweight: Industry expected to outperform the relevant broad market benchmark over the next 12 months.
M=Market Weight: Industry expected to perform in-line with the relevant broad market benchmark over the next 12 months.
U=Underweight: Industry expected to underperform the relevant broad market benchmark over the next 12 months.

VOLATILITY RATING

V = A stock is defined as volatile if the stock price has fluctuated by +/-20% or greater in at least 8 of the past 24 months or if the analyst expects significant volatility. All IPO stocks are automatically rated volatile within the first 24 months of trading.

As of: December 1, 2014

46% of companies covered by Wells Fargo Securities, LLC Equity Research are rated Outperform.	Wells Fargo Securities, LLC has provided investment banking services for 46% of its Equity Research Outperform-rated companies.
51% of companies covered by Wells Fargo Securities, LLC Equity Research are rated Market Perform.	Wells Fargo Securities, LLC has provided investment banking services for 32% of its Equity Research Market Perform-rated companies.
2% of companies covered by Wells Fargo Securities, LLC Equity Research are rated Underperform.	Wells Fargo Securities, LLC has provided investment banking services for 21% of its Equity Research Underperform-rated companies.

Important Disclosure for International Clients

EEA – The securities and related financial instruments described herein may not be eligible for sale in all jurisdictions or to certain categories of investors. For recipients in the EEA, this report is distributed by Wells Fargo Securities International Limited ("WFSIL"). WFSIL is a U.K. incorporated investment firm authorized and regulated by the Financial Conduct Authority. For the purposes of Section 21 of the UK Financial Services and Markets Act 2000 ("the Act"), the content of this report has been approved by WFSIL a regulated person under the Act. WFSIL does not deal with retail clients as defined in the Markets in Financial Instruments Directive 2007. The FCA rules made under the Financial Services and Markets Act 2000 for the protection of retail clients will therefore not apply, nor will the Financial Services Compensation Scheme be available. This report is not intended for, and should not be relied upon by, retail clients.

Australia – Wells Fargo Securities, LLC is exempt from the requirements to hold an Australian financial services license in respect of the financial services it provides to wholesale clients in Australia. Wells Fargo Securities, LLC is regulated under U.S. laws which differ from Australian laws. Any offer or documentation provided to Australian recipients by Wells Fargo Securities, LLC in the course of providing the financial services will be prepared in accordance with the laws of the United States and not Australian laws.

Canada – This report is distributed in Canada by Wells Fargo Securities Canada, Ltd., a registered investment dealer in Canada and member of the Investment Industry Regulatory Organization of Canada (IIROC) and Canadian Investor Protection Fund (CIPF). This report has not been prepared subject to Canadian disclosure requirements.

Hong Kong – This report is issued and distributed in Hong Kong by Wells Fargo Securities Asia Limited ("WFSAL"), a Hong Kong incorporated investment firm licensed and regulated by the Securities and Futures Commission of Hong Kong ("the SFC") to carry on types 1, 4, 6 and 9 regulated activities (as defined in the Securities and Futures Ordinance (Cap. 571 of The Laws of Hong Kong), "the SFO"). This report is not intended for, and should not be relied on by, any person other than professional investors (as defined in the SFO). Any securities and related financial instruments described herein are not intended for sale, nor will be sold, to any person other than professional investors (as defined in the SFO). The author or authors of this report is or are not licensed by the SFC. Professional investors who receive this report should direct any queries regarding its contents to Mark Jones at WFSAL (email: wfsalresearch@wellsfargo.com).

Japan – This report is distributed in Japan by Wells Fargo Securities (Japan) Co., Ltd, registered with the Kanto Local Finance Bureau to conduct broking and dealing of type 1 and type 2 financial instruments and agency or intermediary service for entry into investment advisory or discretionary investment contracts. This report is intended for distribution only to professional investors (Tokutei Toushika) and is not intended for, and should not be relied upon by, ordinary customers (Ippan Toushika).

The ratings stated on the document are not provided by rating agencies registered with the Financial Services Agency of Japan (JFSA) but by group companies of JFSA-registered rating agencies. These group companies may include Moody's Investors Services Inc., Standard & Poor's Rating Services and/or Fitch Ratings. Any decisions to invest in securities or transactions should be made after reviewing policies and methodologies used for assigning credit ratings and assumptions, significance and limitations of the credit ratings stated on the respective rating agencies' websites.

About Wells Fargo Securities

Wells Fargo Securities is the trade name for the capital markets and investment banking services of Wells Fargo & Company and its subsidiaries, including but not limited to Wells Fargo Securities, LLC, a U.S. broker-dealer registered with the U.S. Securities and Exchange Commission and a member of NYSE, FINRA, NFA and SIPC, Wells Fargo Institutional Securities, LLC, a member of FINRA and SIPC, Wells Fargo Prime Services, LLC, a member of FINRA, NFA and SIPC, Wells Fargo Securities Canada, Ltd., a member of IIROC and CIPF, Wells Fargo Bank, N.A. and Wells Fargo Securities International Limited, authorized and regulated by the Financial Conduct Authority.

This report is for your information only and is not an offer to sell, or a solicitation of an offer to buy, the securities or instruments named or described in this report. Interested parties are advised to contact the entity with which they deal, or the entity that provided this report to them, if they desire further information. The information in this report has been obtained or derived from sources believed by Wells Fargo Securities, LLC, to be reliable, but Wells Fargo Securities, LLC does not represent that this information is accurate or complete. Any opinions or estimates contained in this report represent the judgment of Wells Fargo Securities, LLC, at this time, and are subject to change without notice. For the purposes of the U.K. Financial Conduct Authority's rules, this report constitutes impartial investment research. Each of Wells Fargo Securities, LLC and Wells Fargo Securities International Limited is a separate legal entity and distinct from affiliated banks. Copyright © 2014 Wells Fargo Securities, LLC.

SECURITIES: NOT FDIC-INSURED/NOT BANK-GUARANTEED/MAY LOSE VALUE