# IMMUNE DESIGN CORP.

## FORM 424B5

(Prospectus filed pursuant to Rule 424(b)(5))

Filed 07/03/17

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**Filed Pursuant to Rule 424(b)(5)**
**Registration No. 333-206324**

**PROSPECTUS SUPPLEMENT**
(to Prospectus dated December 29, 2015)


# $50,000,000

## Common Stock

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We have entered into a sales agreement, or the sales agreement, with Cowen and Company, LLC, or Cowen, relating to shares of our common stock offered by this prospectus supplement and the accompanying prospectus. In accordance with the terms of the sales agreement, we may offer and sell shares of our common stock having an aggregate offering price of up to $50,000,000 from time to time through Cowen.

Our common stock is listed on the NASDAQ Global Market, or Nasdaq, under the symbol “IMDZ.” On June 30, 2017, the last reported sale price of our common stock was $9.75 per share.

Sales of our common stock, if any, under this prospectus supplement and the accompanying prospectus may be made in sales deemed to be an “at the market offering” as defined in Rule 415(a)(4) promulgated under the Securities Act of 1933, as amended, or the Securities Act. Cowen is not required to sell any specific number or dollar amount of securities, but will act as a sales agent using commercially reasonable efforts consistent with its normal trading and sales practices, on mutually agreed terms between Cowen and us. There is no arrangement for funds to be received in any escrow, trust or similar arrangement.

The compensation to Cowen for sales of common stock sold pursuant to the sales agreement will be equal to 3.0% of the gross proceeds of any shares of common stock sold under the sales agreement. In connection with the sale of the common stock on our behalf, Cowen will be deemed to be an “underwriter” within the meaning of the Securities Act and the compensation of Cowen will be deemed to be underwriting commissions or discounts. We have also agreed to provide indemnification and contribution to Cowen with respect to certain liabilities, including liabilities under the Securities Act or the Securities Exchange Act of 1934, as amended, or the Exchange Act.

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**Investing in our securities involves a high degree of risk. You should review carefully the risks and uncertainties described under the heading “ Risk Factors ” on page S-7 of this prospectus supplement and under similar headings in the other documents that are incorporated by reference into this prospectus supplement.**

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**Neither the Securities and Exchange Commission nor any state securities commission has approved or disapproved of these securities or determined if this prospectus supplement or accompanying prospectus is truthful or complete. Any representation to the contrary is a criminal offense.**

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# Cowen

**The date of this prospectus supplement is July 3, 2017.**

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## Prospectus


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## ABOUT THIS PROSPECTUS SUPPLEMENT

This prospectus supplement and the accompanying prospectus are part of a registration statement on Form S-3 that we have filed with the Securities and Exchange Commission, or SEC, utilizing a "shelf" registration process. Under this shelf registration process, we may sell our common stock described in our base prospectus included in the shelf registration statement in one or more offerings up to a total aggregate offering price of $250,000,000. The $50,000,000 of common stock that may be offered, issued and sold under this prospectus supplement is included in the $250,000,000 of securities that may be offered, issued and sold by us pursuant to our shelf registration statement.

This prospectus supplement relates to the offering of our common stock. Before buying any of the common stock that we are offering, we urge you to carefully read this prospectus supplement and the accompanying prospectus together with the information incorporated by reference as described under the headings "Where You Can Find More Information" and "Incorporation of Certain Information by Reference" in these documents. These documents contain important information that you should consider when making your investment decision.

This prospectus supplement describes the terms of this offering of common stock and also adds to and updates information contained in the accompanying prospectus and the documents incorporated by reference into the accompanying prospectus. If any statement in one of these documents is inconsistent with a statement in another document having a later date (for example, a document incorporated by reference into this prospectus supplement) the statement in the document having the later date modifies or supersedes the earlier statement.

You should rely only on the information contained in or incorporated by reference in this prospectus supplement, the accompanying prospectus and in any free writing prospectus that we have authorized for use in connection with this offering. We have not, and the sales agent has not, authorized anyone to provide you with different information. If anyone provides you with different or inconsistent information, you should not rely on it. We are not, and the sales agent is not, making an offer to sell these securities in any jurisdiction where the offer or sale is not permitted. You should assume that the information appearing in this prospectus supplement, the accompanying prospectus, the documents incorporated by reference, and in any free writing prospectus that we have authorized for use in connection with this offering, is accurate only as of the date of those respective documents. Our business, financial condition, results of operations and prospects may have changed since those dates. You should read this prospectus supplement, the accompanying prospectus, the documents incorporated by reference, and any free writing prospectus that we have authorized for use in connection with this offering, in their entirety before making an investment decision.

Except as otherwise indicated herein or as the context otherwise requires, references in this prospectus to "Immune Design," "the Company," "we," "us," "our" and similar references refer to Immune Design Corp. ZVex and GLAAS are our registered trademarks. The Immune Design logo is our unregistered trademark. This prospectus supplement and the accompanying prospectus, including the information incorporated by reference into this prospectus supplement and the accompanying prospectus, and any free writing prospectuses we have authorized for use in connection with this offering, contains registered marks, trademarks and trade names of other companies, which are the property of their respective owners.

## PROSPECTUS SUPPLEMENT SUMMARY

*This summary highlights certain information about us, this offering and selected information contained elsewhere in or incorporated by reference into this prospectus supplement and the accompanying prospectus. This summary is not complete and does not contain all of the information that you should consider before deciding whether to invest in our common stock. For a more complete understanding of our company and this offering, we encourage you to read and consider carefully the information in this prospectus supplement and the accompanying prospectus, including the information incorporated by reference, and the information included in any free writing prospectus that we have authorized for use in connection with this offering, including the information under the heading "Risk Factors" in this prospectus supplement on page S-7 and in the documents incorporated by reference into this prospectus supplement and the accompanying prospectus.*

### Company Overview

We are a clinical-stage immunotherapy company with next-generation, diversified *in vivo* approaches designed to enable the body's immune system to fight disease. Although we believe our approaches have broad potential across multiple therapeutic areas, we are focused in oncology and have designed our technologies to activate the immune system's natural ability to generate and/or expand antigen-specific cytotoxic T cells, while also enhancing other immune effectors, to fight cancer and other chronic diseases. CMB305 and G100, our two leading product candidates focused in cancer immunotherapy, are the first product candidates from our two separate discovery platforms targeting dendritic cells *in vivo* , ZVex ® and GLAAS ® . CMB305 and G100 utilize different immuno-oncology approaches that, we believe, address the shortcomings of existing therapies and have the potential to treat a broad patient population either as individual therapies or in combination with other mechanisms of action. We have also been executing a strategy to partner individual indications outside of oncology in infectious and allergic diseases, which provide potential downstream economics while preserving growth opportunity in the future.

#### *CMB305: Antigen Specific, Next-Generation Cancer Vaccine*

CMB305 is a prime-boost vaccine approach targeting the NY-ESO-1 tumor antigen, in which a priming agent called LV305 from our ZVex platform is dosed sequentially with a boosting agent from our GLAAS platform. CMB305 is designed to induce and expand a specific, integrated anti-tumor immune response and is currently being evaluated in Phase 1 clinical trials in patients with soft tissue sarcoma as a monotherapy, as well as in a randomized Phase 2 clinical trial in patients with soft tissue sarcoma in combination with the anti-PD-L1 cancer immunotherapy, Tecentriq ® (atezolizumab), pursuant to a collaboration with Genentech, Inc. In June 2017, at the American Society of Clinical Oncology, or ASCO, 2017 Annual Meeting, we presented data on 25 patients with recurrent soft tissue sarcoma treated with CMB305 monotherapy. The presentation showed that in a population where 92% of the patients had metastatic disease and 56% were progressing upon trial entry, the median overall survival, or OS, had not yet been reached and the OS rate was 83% and 76% at 12 and 18 months, respectively. These new data compare favorably to the median OS for approved second line and later sarcoma agents, which is 12.4-13.5 months, as well as a published median OS of 11.7 months for synovial sarcoma patients specifically, which was the largest patient population enrolled in this trial. A disease control rate, or DCR, of 64% was observed, including tumor growth arrest in patients who had evidence of disease progression at study entry. CMB305 was also well tolerated, with only one related Grade 3 adverse event, or AE, and without dose-limiting toxicities. With respect to immunogenicity, CMB305 generated a strong and broad anti-NY-ESO-1 immune response in over 50% of the patients, with 32% of patients experiencing an integrated response (T cells and antibodies), and induction of an immune response against other tumor antigens not targeted by CMB305 was detected in 33% of

evaluable patients following CMB305 therapy. Patients who responded immunologically had a greater degree of antigen-specific T cell response than previously reported in the Phase 1 trial of LV305 alone, which is consistent with the rationale of the prime boost approach. In a separate presentation examining data from a pool of 64 patients of various tumor types treated with CMB305 or LV305 monotherapy, we reported that the induction of the intended anti-NY-ESO-1 immune response by these agents is associated with improved patient survival, particularly in patients with pre-existing anti-NY-ESO-1 immunity. These immune biomarkers, including what we believe are novel biomarkers derived from public T cell receptors, may guide regulatory strategy via the selection of patients more likely to have survival benefit on CMB305 therapy.

The CMB305 combination study is a randomized Phase 2 trial in which patients receive either CMB305 combined with Tecentriq or Tecentriq alone. We completed enrollment of this trial and, if afforded the opportunity, intend to present data from the trial at medical meetings beginning in the second half of 2017. The initial data we intend to present would cover approximately the first 36 patients enrolled with at least six months of observation. We believe the potential benefit for these patients will be improved survival coupled with a favorable safety profile, based on our experience with CMB305 monotherapy to date. Because the survival endpoint is likely to take time to reach, with these initial data we plan to focus primarily on safety and the emerging biomarkers that appear to associate with survival.

We have received orphan drug designation in the United States for CMB305, and in the US and EU for each component of CMB305, in each case, for soft tissue sarcoma. If the ongoing trials produce a sufficiently robust clinical benefit for patients, we plan to discuss an appropriate development path with the regulatory authorities and pursue soft tissue sarcoma as the first indication for which we would seek approval for CMB305. We are also developing a companion diagnostic in connection with our CMB305 development program to identify NY-ESO-1 expressing tumors, which test we believe would require U.S. Food and Drug Administration, or FDA, approval contemporaneously with CMB305.

***G100: Antigen Agnostic, Intratumoral Immune Activation***

G100 was developed from the GLAAS platform and, in contrast to CMB305, does not target a specific antigen, but instead activates both innate and adaptive immunity in the tumor microenvironment, including dendritic cells, to create an immune response against the tumor's preexisting diverse set of antigens, including neoantigens. G100 contains a potent synthetic small molecule toll-like receptor-4 (TLR-4) agonist, Glucopyranosyl Lipid A (GLA) and is the lead product candidate in our Antigen Agnostic approach. We are developing G100 as a monotherapy and combination therapy in patients with follicular non-Hodgkin Lymphoma, or FL, in a randomized Phase 1b/2 trial. The monotherapy portion of the trial is evaluating G100 with local radiation, and the randomized portion of the trial is evaluating G100 with local radiation alone and in combination with the anti-PD-1 agent, Keytruda ® (pembrolizumab), pursuant to a collaboration with Merck.

At the ASCO 2017 Annual Meeting, we presented data on nine patients with FL, 56% of which were relapsed/refractory and most of which had Stage III or IV disease (56% and 33%, respectively). Additionally, 55% of patients had received at least two prior therapies and 78% of patients had progressive disease upon study entry. We observed objective responses at all dose levels tested, including a DCR of 100%. 44% of the patients achieved a partial response based on World Health Organization criteria, which is at least a 50% tumor reduction, and the balance of the patients achieved stable disease. In addition, 50% of evaluable patients experienced shrinkage of untreated distal, or abscopal, lesions, and G100 was well tolerated with no related Grade 3/4 AEs. Finally, G100 resulted in favorable tumor microenvironment changes, with tumor biopsies showing increased inflammatory responses and T cell infiltrates in abscopal, non-treated tumors.

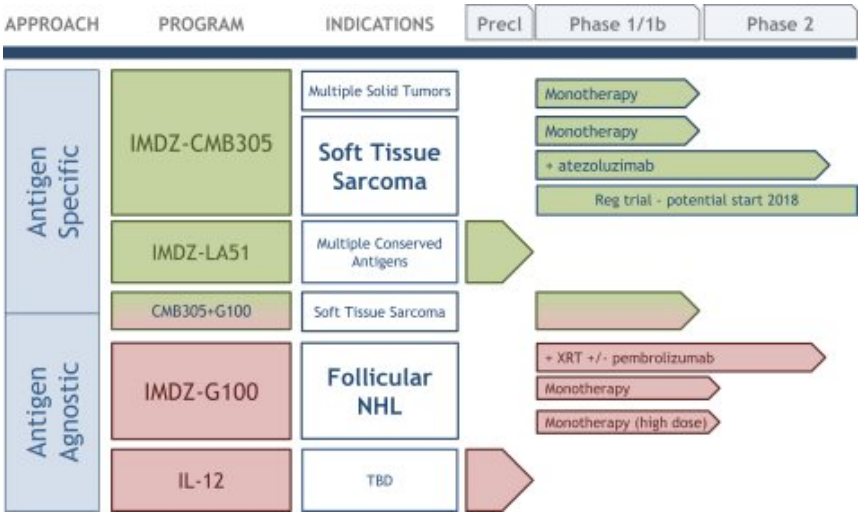
We have fully enrolled the randomized Phase 2 combination study of G100, and if afforded the opportunity, plan to present data in the fourth quarter of 2017 on all of the patients at an appropriate

medical meeting. Unlike CMB305, which focuses on OS as the primary clinical benefit, we plan to evaluate the objective response rate achieved by these patients, as well as safety and a continued analysis of the tumor microenvironment.

We have received orphan drug designation in the United States for G100 in FL. If the ongoing trials produce a sufficiently robust clinical benefit for patients, we plan to discuss an appropriate development path with the regulatory authorities to pursue FL as the first indication for which we would seek approval for G100.

**Our Product Candidates in Development**

Our clinical-stage oncology product candidates are depicted in the following diagram:




**Our Corporate Information**

We were incorporated in February 2008 in the State of Delaware. Our operations are headquartered in Seattle, Washington and we have an additional facility in South San Francisco, California. Our principal executive offices are located at 1616 Eastlake Ave. E., Suite 310, Seattle, WA 98102, and our telephone number is (206) 682-0645. Our website address is www.immunedesign.com. Our website and the information contained on, or that can be accessed through, the website will not be deemed to be incorporated by reference in, and are not considered part of, this prospectus supplement or accompanying prospectus. You should not rely on any such information in making your decision whether to purchase our common stock.

**Implications of Being an Emerging Growth Company**

We are an "emerging growth company" as defined in the Jumpstart Our Business Startups Act of 2012, or the JOBS Act. An emerging growth company may take advantage of specified reduced reporting and other burdens that are otherwise applicable generally to public companies. These provisions include:

- being permitted to provide only two years of audited financial statements, in addition to any required unaudited interim financial statements, with correspondingly reduced "Management's Discussion and Analysis of Financial Condition and Results of Operations" disclosure;
- not being required to comply with the auditor attestation requirements in the assessment of our internal control over financial reporting;
- not being required to comply with any requirement that may be adopted by the Public Company Accounting Oversight Board regarding mandatory audit firm rotation or a supplement to the auditor's report providing additional information about the audit and the financial statements;
- reduced disclosure obligations regarding executive compensation in our periodic reports, proxy statements and registration statements; and
- not being required to hold a nonbinding advisory vote on executive compensation and stockholder approval of any golden parachute payments not previously approved.

We may take advantage of these provisions until December 31, 2021 or such earlier time that we no longer can qualify as an emerging growth company. We would cease to be an emerging growth company if we have more than $1.07 billion in annual revenues, have more than $700 million in market value of our capital stock held by non-affiliates, or issue more than $1.0 billion of non-convertible debt over a three-year period. We may choose to take advantage of some but not all of these reduced burdens. For example, we have taken advantage of the reduced reporting requirements with respect to disclosure regarding our executive compensation arrangements, have presented only two years of audited financial statements and only two years of related "Management's Discussion and Analysis of Financial Condition and Results of Operations" disclosure in our public filings, and have taken advantage of the exemption from auditor attestation on the effectiveness of our internal control over financial reporting. Accordingly, the information that we provide stockholders may be different than you might obtain from other public companies in which you hold equity interests.

In addition, the JOBS Act provides that an emerging growth company can take advantage of an extended transition period for complying with new or revised accounting standards. This provision allows an emerging growth company to delay the adoption of some accounting standards until those standards would otherwise apply to private companies. We have irrevocably elected not to avail ourselves of delayed adoption of new or revised accounting standards and, therefore, we will be subject to the same requirements to adopt new or revised accounting standards as other public companies that are not emerging growth companies.

**THE OFFERING**

| | |
|---|---|
| Common Stock Offered By Us | Shares of our common stock having an aggregate offering price of up to $50,000,000. |
| Common Stock to be Outstanding After This Offering | Up to 30,672,755 shares (as more fully described in the notes following this table), assuming sales of 5,128,205 shares of our common stock in this offering at an offering price of $9.75 per share, which was the last reported sale price of our common stock on Nasdaq on June 30, 2017. The actual number of shares issued will vary depending on the sales price under this offering. |
| Manner of Offering | "At the market offering" that may be made from time to time through our sales agent, Cowen. See "Plan of Distribution" on page S-13. |
| Use of Proceeds | We currently intend to use the net proceeds from this offering primarily to fund the research and development of product candidates, acquire rights to products or technologies that are complementary to our own, although we have no current plans, commitments or agreements with respect to any acquisitions as of the date of this prospectus supplement, and for working capital and general corporate purposes. See "Use of Proceeds" on page S-10 of this prospectus supplement. |
| Risk Factors | Investing in our common stock involves significant risks. See "Risk Factors" on page S-7 of this prospectus supplement, and under similar headings in other documents incorporated by reference into this prospectus supplement and the accompanying prospectus. |
| NASDAQ Global Market symbol | "IMDZ" |

The above discussion and table are based on 25,544,550 shares of our common stock outstanding as of March 31, 2017, and exclude:

- 4,100,676 shares of our common stock issuable upon the exercise of stock options outstanding as of March 31, 2017 under our 2008 Equity Incentive Plan, or 2008 Plan, and our 2014 Omnibus Incentive Plan, or the 2014 Plan, at a weighted average exercise price of $11.19 per share;
- 297,550 shares of our common stock reserved for issuance under our 2014 Plan upon settlement of restricted stock units outstanding as of March 31, 2017;
- 901,567 shares of our common stock reserved for issuance under our 2014 Plan as of March 31, 2017, as well as any future increases in the number of shares of our common stock reserved for issuance under the 2014 Plan; and

- 503,620 shares of our common stock reserved and available for issuance under our 2014 Employee Stock Purchase Plan, or ESPP, as of March 31, 2017, as well as any future increases in the number of shares of our common stock reserved for issuance under the ESPP.

## RISK FACTORS

*Investing in our securities involves a high degree of risk. You should carefully review the risks and uncertainties described below and under the section titled "Risk Factors" in our Quarterly Report on Form 10-Q for the quarter ended March 31, 2017, as updated by our annual, quarterly and other reports and documents that are incorporated by reference into this prospectus supplement and the accompanying prospectus, before deciding whether to purchase any of the securities being registered pursuant to the registration statement of which this prospectus supplement and the accompanying prospectus are a part. Each of the risk factors could adversely affect our business, results of operations, financial condition and cash flows, as well as adversely affect the value of an investment in our securities, and the occurrence of any of these risks might cause you to lose all or part of your investment. Additional risks not presently known to us or that we currently believe are immaterial may also significantly impair our business operations. Please also read carefully the section below titled "Special Note Regarding Forward-Looking Statements."*

### ADDITIONAL RISKS RELATED TO THIS OFFERING

***You may experience dilution.***

The offering price per share in this offering may exceed the net tangible book value per share of our common stock outstanding prior to this offering. Assuming that an aggregate of 5,128,205 shares of our common stock are sold at a price of $9.75 per share, the last reported sale price of our common stock on Nasdaq on June 30, 2017, for aggregate gross proceeds of $50.0 million, and after deducting commissions and estimated offering expenses payable by us, you would experience immediate dilution of $5.41 per share, representing the difference between our as adjusted net tangible book value per share as of March 31, 2017 after giving effect to this offering and the assumed offering price. The exercise of outstanding stock options would result in further dilution of your investment. See the section titled "Dilution" below for a more detailed illustration of the dilution you would incur if you participate in this offering. Because the sales of the shares offered hereby will be made directly into the market or in negotiated transactions, the prices at which we sell these shares will vary and these variations may be significant. Purchasers of the shares we sell, as well as our existing stockholders, will experience significant dilution if we sell shares at prices significantly below the price at which they invested.

***Our management might apply the net proceeds from this offering in ways with which you do not agree and in ways that may impair the value of your investment.***

We currently intend to use the net proceeds from this offering primarily to fund the research and development of product candidates, acquire rights to products or technologies that are complementary to our own, although we have no current plans, commitments or agreements with respect to any acquisitions as of the date of this prospectus supplement, and for working capital and general corporate purposes. Pending the use of net proceeds, we intend to invest the net proceeds in short-term, investment-grade, interest bearing obligations, certificates of deposit or direct or guaranteed obligations of the United States. Our management has broad discretion as to the use of these proceeds and you will be relying on the judgment of our management regarding the application of these proceeds. We might apply these proceeds in ways with which you do not agree, or in ways that do not yield a favorable return. If our management applies these proceeds in a manner that does not yield a significant return, if any, on our investment of these net proceeds, it could compromise our ability to pursue our growth strategy and adversely affect the market price of our common stock.

## SPECIAL NOTE REGARDING FORWARD-LOOKING STATEMENTS

This prospectus supplement, the accompanying prospectus and the documents incorporated by reference contain forward-looking statements. These are based on our management's current beliefs, expectations and assumptions about future events, conditions and results and on information currently available to us. Discussions containing these forward-looking statements may be found, among other places, in the Sections titled "Business," "Risk Factors" and "Management's Discussion and Analysis of Financial Condition and Results of Operations" incorporated by reference from our most recent Annual Report on Form 10-K and in our most recent quarterly report on Form 10-Q, as well as any amendments thereto, filed with the SEC.

Any statements in this prospectus supplement, in the accompanying prospectus, or incorporated herein, about our expectations, beliefs, plans, objectives, assumptions or future events or performance are not historical facts and are forward-looking statements. Within the meaning of Section 27A of the Securities Act and Section 21E of the Exchange Act , these forward-looking statements include statements regarding:

- our estimates regarding our expenses, revenues, anticipated capital requirements and our needs for additional financing;
- the implementation of our business model and strategic plans for our business and technology;
- the timing of the commencement, progress and receipt of data from any of our preclinical and clinical trials;
- the expected results of any clinical trial and the impact on the likelihood or timing of any regulatory approval;
- the scope of protection we are able to establish and maintain for intellectual property rights covering our technology and product candidates;
- the timing or likelihood of regulatory filings and approvals;
- the outcome of any current or future litigation;
- developments relating to our competitors and our industry; and
- our expectations regarding licensing, acquisitions and strategic operations.

In some cases, you can identify forward-looking statements by terminology such as "anticipate," "believe," "could," "estimate," "expects," "intend," "may," "might," "plan," "potential," "predict," "project," "should," "will," "would" or the negative or plural of those terms, and similar expressions intended to identify statements about the future, although not all forward-looking statements contain these words. These statements involve known and unknown risks, uncertainties and other factors that may cause our actual results, levels of activity, performance or achievements to be materially different from the information expressed or implied by these forward-looking statements.

You should refer to the "Risk Factors" section contained in this prospectus supplement, the accompanying prospectus and any related free writing prospectus, and under similar headings in the other documents that are incorporated by reference into this prospectus, for a discussion of important factors that may cause our actual results to differ materially from those expressed or implied by our forward-looking statements. Given these risks, uncertainties and other factors, many of which are beyond our control, we cannot assure you that the forward-looking statements in this prospectus supplement and the accompanying prospectus will prove to be accurate, and you should not place undue reliance on these forward-looking statements. Furthermore, if our forward-looking statements prove to be inaccurate, the inaccuracy may be material. In light of the significant uncertainties in these

forward-looking statements, you should not regard these statements as a representation or warranty by us or any other person that we will achieve our objectives and plans in any specified time frame, or at all.

Except as required by law, we assume no obligation to update these forward-looking statements publicly, or to revise any forward-looking statements to reflect events or developments occurring after the date of this prospectus supplement, even if new information becomes available in the future.

## USE OF PROCEEDS

We may issue and sell shares of our common stock having aggregate sales proceeds of up to $50.0 million from time to time. Because there is no minimum offering amount required as a condition to close this offering, the actual total public offering amount, commissions and proceeds to us, if any, are not determinable at this time. There can be no assurance that we will sell any shares under or fully utilize the sales agreement with Cowen as a source of financing.

We currently intend to use the net proceeds from this offering primarily to fund the research and development of product candidates, acquire rights to products or technologies that are complementary to our own, although we have no current plans, commitments or agreements with respect to any acquisitions as of the date of this prospectus supplement, and for working capital and general corporate purposes. Pending the use of net proceeds, we intend to invest the net proceeds in short-term, investment-grade, interest bearing obligations, certificates of deposit or direct or guaranteed obligations of the United States.

## DILUTION

Our net tangible book value as of March 31, 2017 was approximately $85.1 million, or $3.33 per share. Net tangible book value per share is determined by dividing our total tangible assets, less total liabilities, by the number of shares of our common stock outstanding as of March 31, 2017. Dilution with respect to net tangible book value per share represents the difference between the amount per share paid by purchasers of shares of common stock in this offering and the net tangible book value per share of our common stock immediately after this offering.

After giving effect to the sale of 5,128,205 shares of our common stock in this offering at an assumed offering price of $9.75 per share, the last reported sale price of our common stock on Nasdaq on June 30, 2017, and after deducting estimated offering commissions and offering expenses payable by us, our as adjusted net tangible book value as of March 31, 2017 would have been approximately $133.2 million, or $4.34 per share. This represents an immediate increase in net tangible book value of $1.01 per share to existing stockholders and immediate dilution of $5.41 per share to investors purchasing our common stock in this offering at the public offering price. The following table illustrates this dilution on a per share basis:

| | | |
|---|---|---|
| Assumed public offering price per share | | $9.75 |
| Net tangible book value per share of as March 31, 2017 | $3.33 | |
| Increase in net tangible book value per share attributable to this offering | $1.01 | |
| As adjusted net tangible book value per share as of March 31, 2017, after giving effect to this offering | | $4.34 |
| Dilution per share to investors purchasing our common stock in this offering | | $5.41 |

The above discussion and table are based on 25,544,550 shares of our common stock outstanding as of March 31, 2017, and exclude:

- 4,100,676 shares of our common stock issuable upon the exercise of stock options outstanding as of March 31, 2017 under our 2008 Plan and 2014 Plan, at a weighted average exercise price of $11.19 per share;
- 297,550 shares of our common stock reserved for issuance under our 2014 Plan upon settlement of restricted stock units outstanding as of March 31, 2017;
- 901,567 shares of our common stock reserved for issuance under our 2014 Plan as of March 31, 2017, as well as any future increases in the number of shares of our common stock reserved for issuance under the 2014 Plan; and
- 503,620 shares of our common stock reserved and available for issuance under our ESPP as of March 31, 2017, as well as any future increases in the number of shares of our common stock reserved for issuance under the ESPP.

The table above assumes for illustrative purposes that an aggregate of 5,128,205 shares of our common stock are sold during the term of the sales agreement with Cowen at a price of $9.75 per share, the last reported sale price of our common stock on Nasdaq on June 30, 2017, for aggregate gross proceeds of $50.0 million. The shares subject to the sales agreement with Cowen are being sold from time to time at various prices. An increase of $1.00 per share in the price at which the shares are sold from the assumed offering price of $9.75 per share shown in the table above, assuming all of our common stock in the aggregate amount of $50.0 million during the term of the sales agreement with Cowen is sold at that price, would increase our adjusted net tangible book value per share after the offering to $4.41 per share and would increase the dilution in net tangible book value per share to new investors in this offering to $6.34 per share, after deducting commissions and estimated aggregate

offering expenses payable by us. A decrease of $1.00 per share in the price at which the shares are sold from the assumed offering price of $9.75 per share shown in the table above, assuming all of our common stock in the aggregate amount of $50.0 million during the term of the sales agreement with Cowen is sold at that price, would decrease our adjusted net tangible book value per share after the offering to $4.26 per share and would decrease the dilution in net tangible book value per share to new investors in this offering to $4.49 per share, after deducting commissions and estimated aggregate offering expenses payable by us. This information is supplied for illustrative purposes only.

To the extent that outstanding options outstanding as of March 31, 2017 have been or may be exercised or other shares issued, investors purchasing our common stock in this offering may experience further dilution. In addition, we may choose to raise additional capital due to market conditions or strategic considerations even if we believe we have sufficient funds for our current or future operating plans. To the extent that additional capital is raised through the sale of equity or convertible debt securities, the issuance of these securities could result in further dilution to our stockholders.

## PLAN OF DISTRIBUTION

We have entered into a sales agreement with Cowen, under which we may issue and sell from time to time up to $50,000,000 of our common stock through Cowen as our sales agent. Sales of our common stock, if any, will be made at market prices by any method that is deemed to be an “at the market offering” as defined in Rule 415(a)(4) under the Securities Act, including sales made directly on Nasdaq or any other trading market for our common stock. If authorized by us in writing, Cowen may purchase shares of our common stock as principal.

Cowen will offer our common stock subject to the terms and conditions of the sales agreement on a daily basis or as otherwise agreed upon by us and Cowen. We will designate the maximum amount of common stock to be sold through Cowen on a daily basis or otherwise determine such maximum amount together with Cowen. Subject to the terms and conditions of the sales agreement, Cowen will use its commercially reasonable efforts to sell on our behalf all of the shares of common stock requested to be sold by us. We may instruct Cowen not to sell common stock if the sales cannot be effected at or above the price designated by us in any such instruction. Cowen or we may suspend the offering of our common stock being made through Cowen under the sales agreement upon proper notice to the other party. Cowen and we each have the right, by giving written notice as specified in the sales agreement, to terminate the sales agreement in each party’s sole discretion at any time.

The aggregate compensation payable to Cowen as sales agent equals 3.0% of the gross sales price of the shares sold through it pursuant to the sales agreement. In addition, we have agreed to reimburse Cowen for fees and disbursements related to its legal counsel in an amount not to exceed $50,000, and for certain other expenses, including Cowen’s FINRA counsel fees in an amount up to $10,000. We estimate that the total expenses of the offering payable by us, excluding commissions payable to Cowen under the sales agreement, will be approximately $325,000.

The remaining sales proceeds, after deducting any expenses payable by us and any transaction fees imposed by any governmental, regulatory, or self-regulatory organization in connection with the sales, will equal our net proceeds for the sale of such common stock.

Cowen will provide written confirmation to us following the close of trading on Nasdaq on each day in which common stock is sold through it as sales agent under the sales agreement. Each confirmation will include the number of shares of common stock sold through it as sales agent on that day, the volume weighted average price of the shares sold, the percentage of the daily trading volume and the net proceeds to us.

We will report at least quarterly the number of shares of common stock sold through Cowen under the sales agreement, the net proceeds to us and the compensation paid by us to Cowen in connection with the sales of common stock.

Settlement for sales of common stock will occur, unless the parties agree otherwise or otherwise required by law, on the third business day that is also a trading day following the date on which any sales were made in return for payment of the net proceeds to us. There is no arrangement for funds to be received in an escrow, trust or similar arrangement.

In connection with the sales of our common stock on our behalf, Cowen will be deemed to be an “underwriter” within the meaning of the Securities Act, and the compensation paid to Cowen will be deemed to be underwriting commissions or discounts. We have agreed in the sales agreement to provide indemnification and contribution to Cowen against certain liabilities, including liabilities under the Securities Act. As sales agent, Cowen will not engage in any transactions that stabilizes our common stock.

Our common stock is listed on Nasdaq and trades under the symbol “IMDZ.” The transfer agent of our common stock is Computershare Trust Company, N.A.

Cowen and/or its affiliates have provided, and may in the future provide, various investment banking and other financial services for us for which services they have received and, may in the future receive, customary fees.

## LEGAL MATTERS

The validity of the common stock offered by this prospectus will be passed upon by Cooley LLP, Palo Alto, California. Goodwin Procter LLP, New York, New York, is counsel for Cowen in connection with this offering.

## EXPERTS

The consolidated financial statements, incorporated in this prospectus supplement by reference from the Company's Annual Report on Form 10-K, have been audited by Ernst & Young LLP, an independent registered public accounting firm, as stated in their report, which is incorporated herein by reference. Such consolidated financial statements have been so incorporated in reliance upon the report of such firm given upon their authority as experts in accounting and auditing.

## WHERE YOU CAN FIND MORE INFORMATION

This prospectus supplement and the accompanying prospectus are part of a registration statement we filed with the SEC. This prospectus supplement and the accompanying prospectus do not contain all of the information set forth in the registration statement and the exhibits to the registration statement. For further information with respect to us and the securities we are offering under this prospectus supplement and the accompanying prospectus, we refer you to the registration statement and the exhibits and schedules filed as a part of the registration statement. You should rely only on the information contained in this prospectus supplement and the accompanying prospectus or incorporated by reference. We have not authorized anyone else to provide you with different information. We are not making an offer of these securities in any state where the offer is not permitted. You should not assume that the information in this prospectus supplement is accurate as of any date other than the date on the front page of this prospectus supplement, regardless of the time of delivery of this prospectus supplement or any sale of the securities offered by this prospectus supplement and the accompanying prospectus.

We file annual, quarterly and current reports, proxy statements and other information with the SEC. You may read and copy the registration statement, as well as any other document filed by us with the SEC, at the SEC's Public Reference Room at 100 F Street NE, Washington, D.C. 20549. You can also request copies of these documents by writing to the SEC and paying a fee for the copying cost. You may obtain information on the operation of the Public Reference Room by calling the SEC at (800) SEC-0330. The SEC maintains a website that contains reports, proxy and information statements and other information regarding issuers that file electronically with the SEC, including Immune Design. The address of the SEC website is www.sec.gov.

We maintain a website at www.immunedesign.com. Information contained in or accessible through our website does not constitute a part of this prospectus supplement and will not be deemed to be incorporated by reference.

## INCORPORATION OF CERTAIN INFORMATION BY REFERENCE

The SEC allows us to "incorporate by reference" information into this prospectus supplement and the accompanying prospectus, which means that we can disclose important information to you by referring you to another document filed separately with the SEC. The SEC file number for the documents incorporated by reference in this prospectus supplement is 001-36561. The documents incorporated by reference into this prospectus supplement and the accompanying prospectus contain important information that you should read about us.

The following documents are incorporated by reference into this document:

- our Annual Report on Form 10-K for the year ended December 31, 2016, filed with the SEC on March 7, 2017;
- the information specifically incorporated by reference into our Annual Report on Form 10-K for the year ended December 31, 2016 from our Definitive Proxy Statement on Schedule 14A, filed with the SEC on April 26, 2017;
- our Quarterly Report on Form 10-Q for the fiscal quarter ended March 31, 2017, filed with the SEC on May 4, 2017;
- our Current Reports on Form 8-K filed with the SEC on January 10, 2017, May 17, 2017 and June 15, 2017, and our Amended Current Report on Form 8-K/A filed with the SEC on March 3, 2017, to the extent the information in such reports is filed and not furnished; and
- the description of our common stock contained in our Registration Statement on Form 8-A, filed with the SEC on July 22, 2014, including any amendments or reports filed for the purposes of updating this description.

We also incorporate by reference into this prospectus supplement all documents (other than current reports furnished under Item 2.02 or Item 7.01 of Form 8-K and exhibits filed on such form that are related to such items) that are filed by us with the SEC pursuant to Sections 13(a), 13(c), 14 or 15(d) of the Exchange Act (i) after the date of the initial filing of the registration statement of which this prospectus supplement forms a part and prior to effectiveness of the registration statement, or (ii) after the date of this prospectus supplement but prior to the termination of the offering. These documents include periodic reports, such as Annual Reports on Form 10-K, Quarterly Reports on Form 10-Q and Current Reports on Form 8-K, as well as proxy statements.

We will provide to each person, including any beneficial owner, to whom a prospectus supplement or accompanying prospectus is delivered, without charge upon written or oral request, a copy of any or all of the documents that are incorporated by reference into this prospectus supplement and the accompanying prospectus but not delivered with the prospectus supplement and the accompanying prospectus, including exhibits that are specifically incorporated by reference into such documents. You should direct any requests for documents to:

Immune Design Corp.
Attention: Stephen R. Brady
Executive Vice President, Strategy & Finance
601 Gateway Blvd., Suite 250
South San Francisco, California 94080
(650) 887-6717

Any statement contained herein or in a document incorporated or deemed to be incorporated by reference into this document will be deemed to be modified or superseded for purposes of the document to the extent that a statement contained in this document or any other subsequently filed document that is deemed to be incorporated by reference into this document modifies or supersedes the statement.

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**PROSPECTUS**


# $250,000,000
# Common Stock

From time to time, we may offer and sell shares of our common stock with total gross proceeds of up to $250,000,000. Each time we offer shares of our common stock, we will provide a supplement to this prospectus that contains specific information about the offering. The supplement may also add, update or change information contained in this prospectus with respect to that offering. We may also authorize one or more free writing prospectuses to be provided to you in connection with an offering. You should carefully read this prospectus, the information incorporated by reference in this prospectus, any prospectus supplement and any related free writing prospectus before you invest.

We may sell shares of common stock directly to investors, to or through one or more underwriters, dealers and agents, or through a combination of these methods. If any underwriters, dealers or agents are involved in the sale of our common stock, their names and any applicable purchase price, fee, commission or discount arrangement between or among them, and any applicable over-allotment options, will be set forth, or will be calculable from the information set forth, in the applicable prospectus supplement. See the sections of this prospectus titled “About this Prospectus” and “Plan of Distribution” for more information. **This prospectus may not be used to offer or sell any common stock unless accompanied by a prospectus supplement.**

Our common stock is listed on The NASDAQ Global Market under the symbol “IMDZ.” As of August 10, 2015, the closing price of our common stock was $22.75 per share.

**Investing in our common stock involves risks. Please see “ Risk Factors ” on page 3 and as updated in our future filings made with the Securities and Exchange Commission, which are incorporated by reference in this prospectus.**

**Neither the Securities and Exchange Commission nor any state securities commission has approved or disapproved of these securities or passed upon the adequacy or accuracy of this prospectus. Any representation to the contrary is a criminal offense.**

The date of this prospectus is December 29, 2015.

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## ABOUT THIS PROSPECTUS

This prospectus is part of a registration statement on Form S-3 that we filed with the U.S. Securities and Exchange Commission, or the SEC, using a "shelf" registration process. Under this shelf registration process, we may offer and sell shares of our common stock in one or more offerings for total gross proceeds of up to $250,000,000.

Each time that we offer shares of our common stock under this registration statement, we will provide a supplement to this prospectus that contains specific information about the terms of that offering. If there is any inconsistency between the information in this prospectus and the applicable prospectus supplement, you should rely on the prospectus supplement. Before purchasing our common stock, you should carefully read this prospectus, any applicable prospectus supplement and any related free writing prospectus, together with the additional information described under the headings "Where You Can Find More Information" and "Incorporation of Certain Information by Reference."

**This prospectus may not be used to offer or sell any common stock unless it is accompanied by a prospectus supplement.**

You should rely only on the information incorporated by reference or provided in this prospectus. We have not authorized any other person to provide you with different information. If anyone provides you with different or inconsistent information, you should not rely on it. We will not make an offer to sell common stock in any jurisdiction where the offer or sale is not permitted.

The information appearing in this prospectus, any applicable prospectus supplement or any related free writing prospectus is accurate only as of the date on the front of such document and any information we have incorporated by reference is accurate only as of the date of the document incorporated by reference, regardless of the time of delivery of this prospectus, any applicable prospectus supplement or any related free writing prospectus, or any sale of our common stock. Our business, financial condition, results of operations and prospects may have changed since those dates.

This prospectus contains and incorporates by reference, and any prospectus supplement or free writing prospectus may contain and incorporate by reference, market data and industry statistics and forecasts that are based on independent industry publications and other publicly available information. While we believe that each of these studies and publications is reliable, we have not independently verified market and industry data from third-party sources. Although we are not aware of any misstatements regarding the market and industry data presented in this prospectus and the documents incorporated herein by reference, these estimates involve risks and uncertainties and are subject to change based on various factors, including those discussed under the heading "Risk Factors" contained in the applicable prospectus supplement and any related free writing prospectus, and under similar headings in the other documents that are incorporated by reference into this prospectus. Accordingly, investors should not place undue reliance on this information.

Except as otherwise indicated herein or as the context otherwise requires, references in this prospectus to "Immune Design," "the company," "we," "us," "our" and similar references refer to Immune Design Corp. The Immune Design logo, "IMDZVex," "ZVex" and "GLAAS" are our unregistered trademarks. This prospectus also contains registered marks, trademarks and trade names of other companies. All other trademarks, registered marks and trade names appearing in this prospectus are the property of their respective holders.

## PROSPECTUS SUMMARY

*This summary contains a general summary of the information contained in this prospectus. It may not include all the information that is important to you. You should read the entire prospectus, the prospectus supplement delivered with the prospectus, if any, and the documents incorporated by reference before making an investment decision.*

### Our Company

We are a clinical stage immunotherapy company with next-generation *in vivo* approaches designed to enable the body's immune system to fight disease. We have engineered our primary product candidates, CMB305 and G100, to activate the immune system's natural ability to create tumor-specific cytotoxic T cells to fight cancer. CMB305 and G100, as well as our partnered programs, are the result of our two discovery platforms, ZVex ™ and GLAAS ™ , which we believe have the potential to generate products able to treat a broad cancer patient population either as individual therapies or in combination with other immuno-oncology mechanisms of action, such as checkpoint inhibitors. CMB305 and G100 utilize multiple immuno-oncology approaches and, we believe, address the shortcomings of existing therapies. The following is our primary product development pipeline:

- CMB305 is a prime-boost approach, in which an agent called LV305 from our ZVex platform is dosed sequentially with an agent from our GLAAS platform, G305. CMB305 is designed to synergistically induce anti-tumor cytotoxic T lymphocytes, or CTLs, to target tumors that express NY-ESO-1, a tumor antigen found in a broad set of tumors. Both LV305 and G305 completed separate Phase 1 dose escalation trials with no related serious adverse events and evidence of immunogenicity. In March 2015, we began dosing CMB305 in a Phase 1b clinical trial for the treatment of four solid tumor types, and in June 2015, we began an expansion trial of CMB305 at the highest dose studied in the dose escalation portion. We expect data to be available from the dose-escalation portion of this trial by the end of 2015 and data from the expansion arm in mid-2016. While we intend to focus our ZVex-based development efforts on CMB305, we are conducting an expansion trial of LV305 at the highest dose studied in its dose-escalation trial, including an arm studying LV305 with an anti-PD1 antibody in melanoma patients who have an inadequate response to anti-PD1 therapy.
- G100, from the GLAAS platform, is our second immuno-oncology agent that we designed to generate a robust anti-tumor immune response when administered directly to the tumor micro-environment. In May 2015, we completed enrollment of a Phase 1 clinical trial of G100 dosed as part of a therapeutic regimen, including radiation at the Fred Hutchinson Cancer Research Center in patients with Merkel cell carcinoma, and expect full data from this trial to be available by the end of 2015.

Based on data available to date, we plan to continue development of both CMB305 and G100. We are in the planning stages of initiating a potential randomized Phase 2 clinical trial studying CMB305 in patients with soft tissue sarcoma. In addition, we are initiating a Phase 1/2 clinical trial of G100 in patients with non-Hodgkin Lymphoma. Although data may be available as of a given date, we may elect to disclose the data at an appropriate medical meeting at a later date.

We believe our approach to fighting cancer is the first of its kind. We utilize ZVex and GLAAS to develop product candidates such as CMB305 and G100 that work *in vivo* and are designed to create and expand diverse armies of CTLs to fight tumors . An *in vivo* approach is preferred because it addresses both the cumbersome administration and the need for patient customization inherent in *ex vivo* approaches, such as engineered CD8 T cells. The fundamental discoveries underlying ZVex originated with one of our founders, Nobel laureate David Baltimore, Ph.D. Dr. Baltimore and his

colleagues theorized that a lentivirus, which is a virus that works in immune cells such as dendritic cells, or DCs, could be engineered to selectively deliver the specific genetic information of a tumor marker, called an antigen, directly to DCs in the skin. The expression of this antigen would trigger an immune response of CTLs to eliminate the tumor. GLAAS, in comparison, is a highly potent synthetic stimulator of a specific cellular receptor called TLR4 that is present in DCs. Activation of DCs through TLR4 can safely trigger an anti-tumor immune response and synergize with either pre-existing CTLs (in the case of G100) or CTLs generated by a ZVex product candidate (in the case of CMB305) for what we believe will be a greater degree of tumor killing than either approach alone.

**Our Corporate Information**

We were incorporated under the laws of the State of Delaware in February 2008. Our principal executive offices are located at 1616 Eastlake Ave. E., Suite 310, Seattle, Washington 98102, and our telephone number is (206) 682-0645.

## RISK FACTORS

Investing in our common stock involves a high degree of risk. You should carefully consider and evaluate all of the information contained in this prospectus, any accompanying prospectus supplement and any free writing prospectus, and in the documents we incorporate by reference in this prospectus, before you decide to invest. In particular, you should carefully consider and evaluate the risks and uncertainties described in "Part I — Item 1A. Risk Factors" of our most recent Quarterly Report on Form 10-Q, and any subsequent filings with the SEC that we file after the date of this prospectus, and all other information contained or incorporated by reference in this prospectus, as updated by our subsequent filings under the Securities Exchange Act of 1934, as amended, which we refer to as the Exchange Act in this prospectus, and the risk factors and other information contained in the applicable prospectus supplement. Any of the risks and uncertainties set forth therein could materially and adversely affect our business, results of operations and financial condition, which in turn could materially and adversely affect the trading price or value of our common stock. As a result, you could lose all or part of your investment. Please also read carefully the section titled "Special Note Regarding Forward-Looking Statements."

## SPECIAL NOTE REGARDING FORWARD-LOOKING STATEMENTS

This prospectus and any accompanying prospectus supplement, including the documents incorporated by reference herein and therein, and any free writing prospectus that we have authorized for use in connection with this offering contain "forward-looking statements" within the meaning of Section 27A of the Securities Act of 1933, as amended, which we refer to as the Securities Act, and Section 21E of the Exchange Act that involve substantial risks and uncertainties. In some cases you can identify these statements by forward-looking words such as "believe," "may," "will," "estimate," "continue," "anticipate," "intend," "could," "would," "project," "plan," "expect" or similar expressions, or the negative or plural of these words or expressions. Discussions containing these forward-looking statements may be found, among other places, in "Business," "Risk Factors" and "Management's Discussion and Analysis of Financial Condition and Results of Operations" incorporated by reference from our most recent Annual Report on Form 10-K and in our most recent Quarterly Report on Form 10-Q filed with the SEC, as well as any amendments thereto reflected in subsequent filings with the SEC. These statements involve risks, uncertainties and other factors that may cause our actual results, levels of activity, performance or achievements to be materially different from the information expressed or implied by these forward-looking statements. These forward-looking statements include, but are not limited to, statements concerning the following:

- our estimates regarding our expenses, revenues, anticipated capital requirements and our needs for additional financing;
- the implementation of our business model and strategic plans for our business and technology;
- the timing of the commencement, progress and receipt of data from any of our preclinical and clinical trials;
- the expected results of any clinical trial and the impact on the likelihood or timing of any regulatory approval;
- the scope of protection we establish and maintain for intellectual property rights covering our technology;
- the timing or likelihood of regulatory filings and approvals;
- the outcome of any current or future litigation;
- developments relating to our competitors and our industry; and
- our expectations regarding licensing, acquisitions and strategic operations.

In addition, you should refer to the "Risk Factors" section in the applicable prospectus supplement, or in any free writing prospectus we may authorize for use in connection with a specific offering, for a discussion of other important factors, risks and uncertainties that may cause our actual results to differ materially from those expressed or implied by these forward-looking statements. Given these other important factors, risks and uncertainties, you should not place undue reliance on these forward-looking statements. Also, these forward-looking statements represent our estimates and assumptions only as of the date such forward-looking statements are made. You should carefully read this prospectus, together with the information incorporated herein by reference as described in the section titled "Incorporation of Certain Information by Reference," completely and with the understanding that our actual future results may be materially different from what we expect. We can give no assurances that any of the events anticipated by the forward-looking statements will occur or, if any of them do, what impact they will have on our business, results of operations and financial condition.

You should rely only on information contained or incorporated by reference in this prospectus, the registration statement of which this prospectus is a part, including the exhibits that we have filed with the registration statement, and the applicable prospectus supplement or in any free writing prospectus

we may authorize for use in connection with a specific offering. You should understand that our actual future results may be materially different from what we expect. We qualify all of the forward-looking statements in the foregoing documents by these cautionary statements.

Except as required by law, we undertake no obligation to update or revise any forward-looking statements to reflect new information or future events or developments. You should not assume that our silence over time means that actual events are bearing out as expressed or implied in such forward-looking statements. Before deciding to invest, you should carefully consider the risk factors discussed and incorporated by reference in this prospectus and any prospectus supplement or free writing prospectus and, if required, any post-effective amendment to the registration statement of which this prospectus is a part.

## USE OF PROCEEDS

Unless otherwise indicated in any prospectus supplement or free writing prospectus, the net proceeds from the sale of our common stock offered by this prospectus will be used for general corporate purposes and working capital needs. As a result, unless otherwise indicated in the prospectus supplement or free writing prospectus, our management will have broad discretion to allocate the net proceeds of the offerings. Pending their ultimate use, we intend to invest the net proceeds in a variety of securities, including commercial paper, government and non-government debt securities and/or money market funds that invest in such securities.

## DESCRIPTION OF COMMON STOCK

The following describes the common stock that we may offer under this prospectus, including the material provisions of our amended and restated certificate of incorporation and our amended and restated bylaws, the amended and restated investor rights agreement to which we and certain of our stockholders are parties and certain provisions of the General Corporation Law of the State of Delaware. Because the following is only a summary, it does not contain all of the information that may be important to you. For a complete description, you should refer to our amended and restated certificate of incorporation, amended and restated bylaws and amended and restated investor rights agreement, copies of which have been filed with the SEC. See “Where You Can Find More Information” and “Incorporation of Certain Information by Reference.”

### General

Our amended and restated certificate of incorporation authorizes us to issue up to 100,000,000 shares of common stock, par value $0.001 per share, and 10,000,000 shares of preferred stock, par value $0.001 per share. As of August 3, 2015, there were outstanding:

- 20,129,580 shares of common stock; and
- 2,310,102 shares of common stock subject to outstanding options.

As of August 3, 2015, we had 24 holders of record of our common stock. The actual number of stockholders is greater than this number of record holders and includes stockholders who are beneficial owners, but whose shares are held in street name by brokers and other nominees. This number of holders of record also does not include stockholders whose shares may be held in trust by other entities.

### Common Stock

*Voting Rights* . Each holder of common stock is entitled to one vote for each share on all matters submitted to a vote of the stockholders.

*Dividends* . Subject to preferences that may apply to any outstanding preferred stock, holders of our common stock are entitled to receive ratably any dividends that our board of directors may declare out of funds legally available for that purpose.

*Liquidation* . In the event of our liquidation, dissolution or winding up, holders of our common stock are entitled to share ratably in all assets remaining after payment of liabilities and the liquidation preference of any outstanding preferred stock.

*Rights and Preferences* . Holders of our common stock have no preemptive, conversion, subscription or other rights, and there are no redemption or sinking fund provisions applicable to our common stock. The rights, preferences and privileges of the holders of our common stock are subject to and may be adversely affected by the rights of the holders of shares of any series of our preferred stock that we may designate in the future.

*Fully Paid and Nonassessable* . All outstanding shares of our common stock are fully paid and non-assessable, and the shares of common stock to be issued upon completion of this offering will be fully paid and non-assessable.

## Registration Rights

Holders of 8,892,569 shares of our common stock have the right to demand that we file a registration statement or request that we cover their shares by a registration statement that we otherwise file, as described below.

### *Demand Registration Rights*

Certain holders of common stock having demand registration rights may request that we register all or a portion of their shares of common stock for sale under the Securities Act in an offering with an aggregate offering price of at least $5.0 million. We will effect the registration as requested, unless, in the good faith judgment of our board of directors, such registration would be materially detrimental to the company and its stockholders and should be delayed. In addition, when we are eligible for the use of Form S-3, or any successor form, holders of the shares having demand registration rights may make unlimited requests that we register all or a portion of their common stock for sale under the Securities Act on Form S-3, or any successor form, so long as the aggregate price to the public in connection with any such offering is at least $1.0 million.

### *Incidental Registration Rights*

In addition, if at any time we register any shares of our common stock, the holders of all shares having piggyback registration rights are entitled to notice of the registration and to include all or a portion of their shares of common stock in the registration.

### *Other Provisions*

In the event that any registration in which the holders of registrable shares participate pursuant to the amended and restated investor rights agreement is an underwritten public offering, the number of registrable shares to be included may, in specified circumstances, be limited due to market conditions.

We will pay all registration expenses, other than underwriting discounts and selling commissions, and the reasonable fees and expenses of a single special counsel for the selling stockholders, related to any demand, piggyback and Form S-3 registration. The amended and restated investor rights agreement contains customary cross-indemnification provisions, pursuant to which we must indemnify the selling stockholders in the event of material misstatements or omissions in the registration statement attributable to us, and they must indemnify us for material misstatements or omissions in the registration statement attributable to them. The demand, piggyback and Form S-3 registration rights described above will expire upon the earlier of (i) four years after the closing of our initial public offering, (ii) with respect to each stockholder, the date when such stockholder can sell all of its registrable shares, as defined in the amended and restated investor rights agreement, in a single transaction pursuant to Rule 144 of the Securities Act, (iii) the completion of an acquisition, as defined in our amended and restated certificate of incorporation that was in effect at the time of entering into the amended and restated investor rights agreement, or (iv) the completion of an asset transfer, as defined in our amended and restated certificate of incorporation that was in effect at the time of entering into the amended and restated investor rights agreement.

## Anti-Takeover Provisions

### *Our Certificate of Incorporation and Bylaws*

Our amended and restated certificate of incorporation and amended and restated bylaws include a number of provisions that may deter or impede unsolicited or "hostile" takeovers or changes of control or management. These provisions include:

- *Issuance of undesignated preferred stock.* Our board of directors has the authority, without further action by the stockholders, to issue up to 10,000,000 shares of undesignated preferred stock with rights and preferences, including voting rights, designated from time to time by our board of directors. The existence of authorized but unissued shares of preferred stock enables our board of directors to make it more difficult or to discourage an attempt to obtain control of us by means of a merger, tender offer, proxy contest or otherwise.
- *Classified board.* Our amended and restated certificate of incorporation provides for a classified board of directors consisting of three classes of directors, with staggered three-year terms. Only one class of directors will be elected at each annual meeting of our stockholders, with the other classes continuing for the remainder of their respective three-year terms. This provision may have the effect of delaying a change in control of our board of directors.
- *Board of directors vacancies.* Our amended and restated certificate of incorporation and amended and restated bylaws authorize only our board of directors to fill vacant directorships. In addition, the number of directors constituting our board of directors may be set only by resolution adopted by a majority vote of our entire board of directors. These provisions prevent a stockholder from increasing the size of our board of directors and gaining control of our board of directors by filling the resulting vacancies with its own nominees.
- *Stockholder action; special meetings of stockholders.* Our amended and restated certificate of incorporation provides that our stockholders may not take action by written consent, but may only take action at annual or special meetings of our stockholders. Stockholders will not be permitted to cumulate their votes for the election of directors. Our amended and restated certificate of incorporation further provides that special meetings of our stockholders may be called only by the chairman of our board of directors or by a majority of our board of directors.
- *Advance notice requirements for stockholder proposals and director nominations.* Our amended and restated bylaws provide advance notice procedures for stockholders seeking to bring business before our annual meeting of stockholders or to nominate candidates for election as directors at our annual meeting of stockholders. Our amended and restated bylaws also specify certain requirements as to the form and content of a stockholder's notice. These provisions may make it more difficult for our stockholders to bring matters before our annual meeting of stockholders or to nominate directors at our annual meeting of stockholders.

These provisions are intended to enhance the likelihood of continued stability in the composition of our board of directors and its policies and to discourage certain types of transactions that may involve an actual or threatened acquisition of us. These provisions are designed to reduce our vulnerability to an unsolicited acquisition proposal. The provisions also are intended to discourage certain tactics that may be used in proxy fights. However, these provisions could have the effect of discouraging others from making tender offers for our shares and, as a consequence, they may also reduce fluctuations in the market price of our shares that could result from actual or rumored takeover attempts.

***Section 203 of the General Corporation Law of the State of Delaware***

We are subject to Section 203 of the General Corporation Law of the State of Delaware, or DGCL, which prohibits a Delaware corporation from engaging in a business combination with any interested stockholder for a period of three years following the date the person became an interested stockholder, with the following exceptions:

- before such date, the board of directors of the corporation approved either the business combination or the transaction that resulted in the stockholder becoming an interested holder;
- upon completion of the transaction that resulted in the stockholder becoming an interested stockholder, the interested stockholder owned at least 85% of the voting stock of the corporation outstanding at the time the transaction began, excluding for purposes of determining the voting stock outstanding (but not the outstanding voting stock owned by the interested stockholder) those shares owned (a) by persons who are directors and also officers and (b) pursuant to employee stock plans in which employee participants do not have the right to determine confidentially whether shares held subject to the plan will be tendered in a tender or exchange offer; or
- on or after such date, the business combination is approved by the board of directors and authorized at an annual or special meeting of the stockholders, and not by written consent, by the affirmative vote of at least 66 2/3% of the outstanding voting stock that is not owned by the interested stockholder.

In general, Section 203 defines business combination to include the following:

- any merger or consolidation involving the corporation and the interested stockholder;
- any sale, transfer, pledge or other disposition of 10% or more of the assets of the corporation involving the interested stockholder;
- subject to certain exceptions, any transaction that results in the issuance or transfer by the corporation of any stock of the corporation to the interested stockholder;
- any transaction involving the corporation that has the effect of increasing the proportionate share of the stock or any class or series of the corporation beneficially owned by the interested stockholder; or
- the receipt by the interested stockholder of the benefit of any loans, advances, guarantees, pledges or other financial benefits by or through the corporation.

In general, Section 203 defines an “interested stockholder” as an entity or person who, together with the entity’s or person’s affiliates and associates, beneficially owns, or is an affiliate of the corporation and within three years prior to the time of determination of interested stockholder status did own, 15% or more of the outstanding voting stock of the corporation.

A Delaware corporation may “opt out” of these provisions with an express provision in its certificate of incorporation. We have not opted out of these provisions, which may discourage or prevent mergers or other takeover or change of control attempts of our company.

**Choice of Forum**

Our amended and restated certificate of incorporation provides that the Court of Chancery of the State of Delaware will be the exclusive forum for any derivative action or proceeding brought on our behalf, any action asserting a breach of fiduciary duty owed by any director, officer or employee to us or our stockholders, any action asserting a claim against us arising pursuant to the DGCL or any action

asserting a claim against us that is governed by the internal affairs doctrine. However, several lawsuits involving other companies have been brought challenging the validity of choice of forum provisions in certificates of incorporation, and it is possible that a court could rule that this provision is inapplicable or unenforceable.

### Transfer Agent and Registrar

The transfer agent and registrar for our common stock is Computershare Trust Company, N.A.

### Listing

Our common stock is listed on The NASDAQ Global Market under the trading symbol “IMDZ.”

## PLAN OF DISTRIBUTION

We may sell our common stock in any of the ways described below or in any combination or any other way set forth in an applicable prospectus supplement from time to time:

- to or through underwriters or dealers;
- through one or more agents; or
- directly to purchasers or to a single purchaser.

Each time we sell our common stock, we will provide a prospectus supplement (and any related free writing prospectus that we may authorize to be provided to you) that will describe the method of distribution and set forth the offering terms, including the name or names of any underwriters, dealers or agents, the purchase price and the proceeds to us, any over-allotment options under which underwriters may purchase additional common stock from us, any underwriting discounts, commissions and other items constituting underwriters' discounts or commissions or agency fees and other items constituting underwriters' or agents' compensation and any securities exchanges on which our common stock may be listed.

We may use one or more underwriters in the sale of our common stock, in which case the common stock will be acquired by the underwriter or underwriters for their own account and may be resold from time to time in one or more transactions either:

- at a fixed price or prices, which may be changed;
- at market prices prevailing at the time of sale;
- at prices related to such prevailing market prices; or
- at negotiated prices.

We may directly solicit offers to purchase our common stock. Agents designated by us from time to time may also solicit offers to purchase our common stock. Any agent designated by us, who may be deemed to be an "underwriter" as that term is defined in the Securities Act, involved in the offer or sale of our common stock will be named, and any commissions payable by us to such agent will be set forth in the prospectus supplement.

If a dealer is utilized in the sale of our common stock, we will sell the offered securities to the dealer, as principal. The dealer, who may be deemed to be an "underwriter" as that term is defined in the Securities Act, may then resell our common stock to the public at varying prices to be determined by the dealer at the time of resale.

If an underwriter is, or underwriters are, used in the sale, we will execute an underwriting agreement with the underwriters at the time of sale to the underwriters. The names of the underwriters will be set forth in the prospectus supplement, which will be used by the underwriters to make resales of our common stock to the public. In connection with the sale of our common stock, the underwriters may be deemed to have received compensation from us in the form of underwriting discounts or commissions and may also receive commissions from purchasers of our common stock for whom they may act as agents. Underwriters may also sell our common stock to or through dealers, and the dealers may receive compensation in the form of discounts, concessions or commissions from the underwriters and/or commissions from the purchasers for whom they may act as agents.

If so indicated in the applicable prospectus supplement, we will authorize underwriters, dealers or other persons to solicit offers by certain institutions to purchase our common stock from us at the

public offering price set forth in the applicable prospectus supplement pursuant to delayed delivery contracts providing for payment and delivery on a future date or dates. Institutions with which these contracts may be made include commercial and savings banks, insurance companies, pension funds, investment companies, educational and charitable institutions and others. The obligations of any purchasers under any delayed delivery contract will not be subject to any conditions except that:

- the purchase of our common stock shall not at the time of delivery be prohibited under the laws of the jurisdiction to which the purchaser is subject, and
- if our common stock is also being sold to underwriters, we will have sold to the underwriters our common stock not sold for delayed delivery.

The underwriters, dealers and other persons will not have any responsibility in respect of the validity or performance of such contracts. The prospectus supplement relating to the contracts will set forth the price to be paid for our common stock pursuant to the contracts, the commission payable for solicitation of the contracts and the date or dates in the future for delivery of our common stock pursuant to the contracts.

Unless otherwise set forth in the applicable prospectus supplement, the obligations of underwriters to purchase our common stock will be subject to certain conditions precedent and such underwriters will be obligated to purchase all of our common stock, if any shares of our common stock are purchased. In connection with the offering of our common stock, we may grant to the underwriters an option to purchase additional shares of our common stock to cover over-allotments at the offering price, with an additional underwriting commission, as may be set forth in the accompanying prospectus supplement. If we grant any over-allotment option, the terms of such over-allotment option will be set forth in the prospectus supplement.

Underwriters, dealers, remarketing firms and agents may be entitled, under agreements that they may enter into with us, to indemnification by us against certain civil liabilities, including liabilities under the Securities Act, or to contribution with respect to payments which they may be required to make in respect thereof and may engage in transactions with, or perform services for, us in the ordinary course of business.

Any underwriter may engage in over-allotment, stabilizing transactions, short-covering transactions and penalty bids in accordance with Regulation M under the Exchange Act. Over-allotment involves sales in excess of the offering size, which create a short position. Stabilizing transactions permit bids to purchase the underlying security so long as the stabilizing bids do not exceed a specified maximum. Short-covering transactions involve purchases of our common stock in the open market after the distribution is completed to cover short positions. Penalty bids permit the underwriters to reclaim a selling concession from a dealer when the common stock originally sold by the dealer is purchased in a covering transaction to cover short positions. Those activities may cause the price of our common stock to be higher than it would otherwise be. If commenced, the underwriters may discontinue any of the activities at any time.

The specific terms of any lock-up provisions in respect of any given offering will be described in the applicable prospectus supplement.

The underwriters, dealers and agents may engage in transactions with us, or perform services for us, in the ordinary course of business for which they receive compensation. The anticipated date of delivery of our common stock will be set forth in the applicable prospectus supplement relating to each offer.

In compliance with guidelines of the Financial Industry Regulatory Authority, or FINRA, the maximum consideration or discount to be received by any FINRA member or independent broker dealer may not exceed 8% of the aggregate amount of our common stock offered pursuant to this prospectus and any applicable prospectus supplement.

## LEGAL MATTERS

The legal validity of the common stock offered by this prospectus will be passed upon for us by Hogan Lovells US LLP, Menlo Park, California. Additional legal matters may be passed upon for us or any underwriters, dealers or agents by counsel that we will name in the applicable prospectus supplement.

## EXPERTS

Ernst & Young LLP, independent registered public accounting firm, has audited our financial statements included in our Annual Report on Form 10-K for the year ended December 31, 2014, as set forth in their report, which is incorporated by reference in this prospectus and elsewhere in the registration statement. Our financial statements are incorporated by reference in reliance on Ernst & Young LLP's report, given on their authority as experts in accounting and auditing.

## WHERE YOU CAN FIND MORE INFORMATION

We are currently subject to the reporting requirements of the Exchange Act, and in accordance therewith file periodic reports, proxy statements and other information with the SEC. You may read and copy (at prescribed rates) any such reports, proxy statements and other information at the SEC's Public Reference Room at 100 F Street, N.E., Washington, D.C. 20549. Please call the SEC at 1-800-SEC-0330 for further information on the operation of the public reference room. Our SEC filings are also available to you on the SEC's website at www.sec.gov and in the Investors section of our website at www.immunedesign.com. Our website and the information contained on that site, or connected to that site, are not incorporated into and are not a part of this prospectus.

This prospectus and any prospectus supplement are part of a registration statement that we filed with the SEC and do not contain all of the information in the registration statement. The full registration statement may be obtained from the SEC or us, as provided below. Forms of documents establishing the terms of the offered securities are or may be filed as exhibits to the registration statement. Statements in this prospectus or any prospectus supplement about these documents are summaries and each statement is qualified in all respects by reference to the document to which it refers. You should refer to the actual documents for a more complete description of the relevant matters. You may inspect a copy of the registration statement at the SEC's Public Reference Room in Washington, D.C. or through the SEC's website, as provided above.

## INCORPORATION OF CERTAIN INFORMATION BY REFERENCE

The SEC's rules allow us to "incorporate by reference" information into this prospectus, which means that we can disclose important information to you by referring you to another document filed separately with the SEC. The information incorporated by reference is deemed to be part of this prospectus, and subsequent information that we file with the SEC will automatically update and supersede that information. Any statement contained in a previously filed document incorporated by reference will be deemed to be modified or superseded for purposes of this prospectus to the extent that a statement contained in this prospectus modifies or replaces that statement.

We incorporate by reference our documents listed below and any future filings made by us with the SEC under Section 13(a), 13(c), 14 or 15(d) of the Exchange Act, including those made after the date of the initial filing of the registration statement of which this prospectus is a part and prior to effectiveness of such registration statement, until we file a post-effective amendment that indicates the

termination of the offering of the securities made by this prospectus and will become a part of this prospectus from the date that such documents are filed with the SEC. We are not, however, incorporating by reference any documents or portions thereof, whether specifically listed below or filed in the future, that are not deemed "filed" with the SEC, including any information furnished pursuant to Items 2.02 or 7.01 of Form 8-K or related exhibits furnished pursuant to Item 9.01 of Form 8-K.

This prospectus and any accompanying prospectus supplement incorporate by reference the documents set forth below that have previously been filed with the SEC:

- our Annual Report on Form 10-K for the year ended December 31, 2014, which was filed with the SEC on March 31, 2015 (including information incorporated by reference in the Form 10-K from our definitive proxy statement on Schedule 14A, which was filed with the SEC on April 15, 2015);
- our Quarterly Reports on Form 10-Q for the quarters ended March 31, 2015 and June 30, 2015, filed with the SEC on May 14, 2015 and August 12, 2015, respectively;
- our Current Reports on Form 8-K, which were filed with the SEC on January 9, 2015, March 10, 2015, March 11, 2015, March 19, 2015, May 18, 2015 and June 4, 2015; and
- the description of our common stock contained in our registration statement on Form 8-A, which was filed on July 22, 2014, including any amendments or reports filed for the purpose of updating the description.

All filings filed by us pursuant to the Exchange Act after the date of the initial filing of the registration statement of which this prospectus is a part and prior to effectiveness of the registration statement shall be deemed to be incorporated by reference into this prospectus.

Any statement contained in a document incorporated by reference in this prospectus shall be deemed to be modified or superseded for purposes of this prospectus to the extent that a statement contained in this prospectus or in any other subsequently filed document that also is or is deemed to be incorporated by reference in this prospectus modifies or supersedes such statement. Any statement so modified or superseded shall not be deemed, except as so modified or superseded, to constitute a part of this prospectus.

You may obtain copies of any of these filings by contacting us at the address and telephone number indicated below or by contacting the SEC as described above in the section titled "Where You Can Find More Information." Documents incorporated by reference are available from us without charge, excluding all exhibits unless an exhibit has been specifically incorporated by reference into this prospectus, by requesting them in writing or by telephone at:

Immune Design Corp.
Attention: Stephen R. Brady
Executive Vice President, Strategy and Finance
601 Gateway Blvd., Suite 250
South San Francisco, California 94080
(650) 887-6717


# $50,000,000

## Common Stock

**PROSPECTUS SUPPLEMENT**

**Cowen**

**July 3, 2017**