Filed Pursuant to Rule 424(b)(3)
Registration Statement No. 333-286834

Prospectus

BLUEJAY DIAGNOSTICS, INC.

1,085,106 Shares of Common Stock

This prospectus relates to the resale, from time to time, by the selling stockholders identified in this prospectus under the caption "Selling Stockholders," or the Selling Stockholders, of up to 1,085,106 shares of our common stock, par value $0.0001 per share, or the Shares, issuable to the Selling Stockholders upon the exercise of warrants, or the Warrants, which Warrants were issued to the Selling Stockholders in April 2025.

We are not selling any shares of common stock under this prospectus and will not receive any proceeds from the sale of shares of common stock by the Selling Stockholders hereunder. We will, however, receive the net proceeds of any Warrants exercised for cash. The Selling Stockholders will bear all commissions and discounts, if any, attributable to the sale of the Shares. We will bear all costs, expenses, and fees in connection with the registration of the Shares.

The Selling Stockholders may sell the shares of our common stock offered by this prospectus from time to time on terms to be determined at the time of sale through ordinary brokerage transactions or through any other means described in this prospectus under the caption "Plan of Distribution." The shares of common stock may be sold at fixed prices, at market prices prevailing at the time of sale, at prices related to prevailing market price or at negotiated prices.

Our common stock is listed on the Nasdaq Capital Market under the symbol "BJDX." On May 6, 2025, the closing price of our common stock was $1.76 per share.

Investing in our common stock involves a high degree of risk. See "Risk Factors" beginning on page 12 of this prospectus and under similar headings in the documents incorporated by reference into this prospectus.

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

The date of this prospectus is May 8, 2025.

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ABOUT THIS PROSPECTUS

This prospectus relates to the resale by the Selling Stockholders identified in this prospectus under the caption "Selling Stockholders," from time to time, of up to 1,085,106 shares of our common stock, par value $0.0001 per share. We are not selling any shares of our common stock under this prospectus, and we will not receive any proceeds from the sale of the Shares offered by the Selling Stockholders hereunder. We will, however, receive the net proceeds of any Warrants exercised for cash.

This prospectus is part of a registration statement on Form S-3 that we have filed with the Securities and Exchange Commission, or the SEC, using a shelf registration process. Under this registration statement, the Selling Stockholders may sell from time to time in one or more offerings the common stock described in this prospectus. It omits some of the information contained in the registration statement, and reference is made to the full registration statement for further information with regard to us and the securities being offered by the Selling Stockholders. Any statement contained in the prospectus concerning the provisions of any document filed as an exhibit to the registration statement or otherwise with the SEC is not necessarily complete, and in each instance, reference is made to the document filed. You should review the complete document to evaluate such statements.

You should carefully read this prospectus, any documents that we incorporate by reference in this prospectus and the information below under the captions "Where You Can Find More Information" and "Incorporation of Documents By Reference" before making an investment decision. You should rely only on the information contained or incorporated by reference in this prospectus, in any prospectus supplement or in a related free writing prospectus, or documents to which we otherwise refer you. In addition, this prospectus contains summaries of certain provisions contained in some of the documents described herein, but reference is made to the actual documents for complete information. We have not authorized any person to provide you with different information. If anyone provides you with additional, different, or inconsistent information, you should not rely on it. This prospectus is not an offer to sell these securities, and it is not soliciting an offer to buy these securities, in any jurisdiction where the offer or sale is not permitted.

This prospectus includes important information about us, the securities being offered and other information you should know before investing in our securities. You should not assume that the information contained in this prospectus is accurate on any date subsequent to the date set forth on the front cover of this prospectus, even though this prospectus is delivered or securities are sold or otherwise disposed of on a later date. It is important for you to read and consider all information contained in this prospectus in making your investment decision. All of the summaries in this prospectus are qualified in their entirety by the actual documents. Copies of some of the documents referred to herein have been filed, will be filed or will be incorporated by reference as exhibits to the registration statement of which this prospectus is a part, and you may obtain copies of those documents as described below under the heading "Where You Can Find Additional Information."

We have not authorized anyone to provide any information or to make any representations other than those contained or incorporated by reference in this prospectus or in any free writing prospectuses prepared by or on behalf of us or to which we have referred you. We take no responsibility for, and can provide no assurance as to the reliability of, any other information that others may give you. The information contained in this prospectus or incorporated by reference in this prospectus or contained in any applicable free writing prospectus is current only as of its date, regardless of its time of delivery or any sale of our securities. Our business, financial condition, results of operations and prospects may have changed since that date.

For investors outside the United States: We have not done anything that would permit this offering or possession or distribution of this prospectus in any jurisdiction where action for that purpose is required, other than in the United States. Persons outside the United States who come into possession of this prospectus must inform themselves about, and observe any restrictions relating to, the offering of the securities and the distribution of this prospectus outside the United States.

This prospectus is an offer to sell only the securities offered hereby, and only under circumstances and in jurisdictions where it is lawful to do so. We are not, and the underwriter is not, making an offer to sell these securities in any state or jurisdiction where the offer or sale is not permitted.

Industry and Market Data

This prospectus and the documents incorporated by reference contain estimates, projections and other information concerning our industry, our business, the science of our products and the markets for our products, including data regarding the incidence of certain medical conditions and the scientific basis of our products. We obtained the industry, science, market and similar data set forth in this prospectus from our internal estimates and research and from academic and industry research, publications, surveys, and studies conducted by third parties. While we believe that these industry publications and third-party research, surveys and studies are reliable, we have not independently verified such data and we do not make any representation as to the accuracy of the information. The content of the above sources, except to the extent specifically set forth in this prospectus, does not constitute a portion of this prospectus and is not incorporated herein. Information that is based on estimates, forecasts, projections, market research, scientific research, or similar methodologies is inherently subject to uncertainties and actual events or circumstances may differ materially from events and circumstances that are assumed in this information.

Note Regarding Trademarks

Unless the context otherwise requires, references in this prospectus to "Bluejay," "the Company," "we," "us" and "our" refer to Bluejay Diagnostics, Inc. Our logo and all product names are our common law trademarks. Solely for convenience, trademarks and tradenames referred to in this prospectus may appear without the ® or ™ symbols, but such references are not intended to indicate in any way that we will not assert, to the fullest extent under applicable law, our rights, or that the applicable owner will not assert its rights, to these trademarks and tradenames. We do not intend the use or display of other companies' trademarks and trade names to imply a relationship with, or endorsement or sponsorship of us by, any other companies, products or services.

Basis of Presentation

On November 15, 2024, we filed a Certificate of Amendment to our restated certificate of incorporation with the Secretary of State of the State of Delaware to effect a 1-for-50 reverse stock split of our issued and outstanding shares of common stock, par value $0.0001 per share (the "November 2024 Reverse Stock Split"), which became effective on November 18, 2024. All historical share and per share amounts reflected throughout this prospectus have been adjusted to reflect the November 2024 Reverse Stock Split. However, our periodic and current reports, and all other documents incorporated by reference into this prospectus that were filed prior to November 18, 2024, do not give effect to the November 2024 Reverse Stock Split.

On June 17, 2024, we filed a Certificate of Amendment to our restated certificate of incorporation with the Secretary of State of the State of Delaware to effect a 1-for-8 reverse stock split of our issued and outstanding shares of common stock, par value $0.0001 per share (the "June 2024 Reverse Stock Split"), which became effective on June 20, 2024. All historical share and per share amounts reflected throughout this prospectus have been adjusted to reflect the June 2024 Reverse Stock Split. However, our periodic and current reports, and all other documents incorporated by reference into this prospectus that were filed prior to June 20, 2024, do not give effect to the June 2024 Reverse Stock Split.

On July 21, 2023, we filed a Certificate of Amendment to our restated certificate of incorporation with the Secretary of State of the State of Delaware to effect a 1-for-20 reverse stock split of our issued and outstanding shares of common stock, par value $0.0001 per share (the "2023 Reverse Stock Split"), which became effective on July 24, 2023. All historical share and per share amounts reflected throughout this prospectus have been adjusted to reflect the 2023 Reverse Stock Split. However, our periodic and current reports, and all other documents incorporated by reference into this prospectus that were filed prior to July 24, 2023, do not give effect to the 2023 Reverse Stock Split.

PROSPECTUS SUMMARY

This summary highlights information contained in other parts of this prospectus and in the documents we incorporate by reference. Because it is only a summary, it does not contain all of the information that you should consider before investing in our securities and it is qualified in its entirety by, and should be read in conjunction with, the more detailed information appearing elsewhere in this prospectus, any applicable free writing prospectus and the documents incorporated by reference herein and therein. You should read all such documents carefully, especially the risk factors and our consolidated financial statements and the related notes included or incorporated by reference herein or therein, before deciding to buy shares of our common stock.

Overview

We are a medical diagnostics company focused on improving patient outcomes in critical care settings. We are working on developing rapid tests using whole blood on our Symphony technology platform ("Symphony"), which consists of an analyzer and single-use cartridges. We do not yet have regulatory clearance for Symphony, and we will need to receive regulatory authorization from the U.S. Food and Drug Administration (the "FDA") to be marketed as a diagnostic product in the United States. We have completed the development of the Symphony analyzer. We are currently preparing to transfer the intellectual property underlying the production of the Symphony cartridges from the original developer and outside supplier, Toray Industries, to an in-house facility. We are also beginning the process of redeveloping aspects of the Symphony cartridges to address several technical challenges to bring Symphony to a level consistent with necessary performance and quality requirements. After redevelopment, we plan to transfer manufacturing of the Symphony cartridges to a Contract Manufacturing Organization ("CMO") to manufacture the Symphony cartridges. To achieve our plan, we expect to need to raise at least $30 million of capital between the second quarter of 2025 and the end of the 2027 fiscal year, which we hope to do in various tranches during this time period. As of the date of this prospectus, we have raised approximately $3.7 million of this amount. Our current plan, subject to achieving necessary financing, is to begin testing of samples we are collecting as part of our ongoing SYMON-II clinical trial in mid-2027, with a goal of being in position to submit a 510(k) regulatory application to the FDA in the fourth quarter of 2027, with an objective of achieving FDA approval as early as the third quarter of 2028.

Our Symphony platform is a combination of our intellectual property ("IP") and exclusively licensed and patented IP on the Symphony technology that we believe, if cleared, authorized, or approved by the FDA, can provide a solution to a significant market need in the United States. The Symphony device is designed to produce laboratory-quality results in 20 minutes in critical care settings, including Intensive Care Units ("ICUs") and Emergency Rooms ("ERs"), where rapid and reliable results are required.

Our first product candidate, the Symphony IL-6 test, is an immunoassay for the measurement of interleukin-6 (IL-6) to be used for the monitoring of disease progression in critical care settings. We are currently focused on pursuing the Symphony IL-6 test in the context of sepsis. IL-6 is a clinically established inflammatory biomarker, and is considered a 'first-responder,' for assessment of severity of infection and inflammation across many disease indications, including sepsis. A current challenge of healthcare professionals is the excessive time and cost associated determining a patient's level of severity at triage and we believe that our Symphony IL-6 test, if ultimately successful and approved, could have the ability to consistently monitor this critical care biomarker with rapid results.

If we succeed with the foregoing plan, in the future we hope to develop additional tests for Symphony, including tests for myocardial infarction and congestive heart failure (cardiac biomarkers hsTNT and NT pro-BNP) as well as other tests using the Symphony platform.

In the future, we also hope to explore new products to support our biomarker detection program. Furthermore, we intend to explore strategic opportunities around our pending IP on clinical utilities of IL-6 and the specimen biobanks generated from our SYMON I and SYMON II clinical studies.

Our operations to date have been funded primarily through the proceeds of (i) our initial public offering (the "IPO") on November 2021 (the "IPO Date"), (ii) the registered direct offering of common stock and concurrent private placement of warrants that we completed on August 28, 2023, (iii) the public offering of common stock and warrants that we completed on January 2, 2024, (iv) the public offering of common stock and warrants that we completed on June 20, 2024, and (v) the warrant inducement transaction that we completed on April 8, 2025, which is described further below. Since inception, our operations have resulted in accumulated deficit of approximately $34.7 million, and for the fiscal year ended December 31, 2024, we incurred operating losses of approximately $7.2 million. As described above and elsewhere herein, we expect to need a material amount of additional funding to finance our operations during the next several years and ultimately commercialize our products, and we do not currently expect to have any sources of revenue during this period.

Our Market

The Symphony platform is designed to address a subset of the global *in vitro* diagnostics devices ("IVDs") market, with a focus on targeting critical care markets where physicians must quickly determine patient acuity to identify optimal treatment regimens. We are currently focused on our initial biomarker test, Symphony IL-6 test, in the context of the evaluation of the risk of mortality due to sepsis. We hope in the future to also explore the potential for adding new biomarker tests to the Symphony platform to also be used in the context of cardio-metabolic diseases, cancer and other diseases that require rapid tests.

Our Business Model

We do not currently have any revenue-generating operations. Our goal is to become the first provider of rapid tests for critical care settings, including infectious, inflammatory and metabolic diseases, by leveraging the strengths of our Symphony platform. We intend to target our sales and marketing of Symphony to the largest critical care facilities in the United States. Our planned business model, which is contingent on us ultimately obtaining market approval and commercializing our Symphony platform, includes the following:

- *Financing Model*. We intend to offer various financing options for the device itself. As such, our planned business model would not require customers to incur a significant capital outlay, assuming we are able to successfully offer such financial options.

- *Recurring Revenue*. We intend to sell single-use diagnostic test cartridges, thereby seeking to create a growing and recurring revenue stream, as adoption and utilization increase, and as we develop tests for additional indications. We intend that the sale of test cartridges would generate the majority of our revenue and gross profit.

- *Expand our Menu of Diagnostic Products*. Our goal would be for the average customer use of the Symphony platform to increase as overall adoption of the product occurs. If we are able to achieve market approval in the context of sepsis and then expand our test menu to other diseases and/or conditions, we hope to be able to increase our annual revenue per customer through the resulting increase in utilization.

The Symphony Platform

The Symphony platform is a proprietary technology platform that is designed to provide rapid and accurate measurements of key diagnostic biomarkers found in blood in a manner that we believe is innovative in the market. Symphony is compact and is designed for the potential of it to be deployed in a manner that is more mobile than current laboratory diagnostic platforms on the market. Symphony incorporates a user-friendly interface where all sample preparation and reagents are integrated into the disposable Symphony cartridges. Symphony only requires a few drops of blood to provide a measurement in approximately 20 minutes.

The Symphony analyzer is developed and is designed to orchestrate sample processing (e.g. whole blood, plasma, serum, etc.), biomarker isolation, and immunoassay preparation using non-contact centrifugal force. All necessary reagents and components are integrated into the Symphony cartridges. Utilizing precision microchannel technology and high specificity antibodies, liquid samples are processed, and the biomarker is isolated within the Symphony cartridge. Intermitted centrifugation cycles enable complex fluid movements, allowing sequential reagent additions and independent reaction steps inside the Symphony cartridge. At the conclusion of the test, the Symphony analyzer measures the fluorescence signature correlating to a highly sensitive quantitation of the biomarker.

To perform a Symphony test, the test operator adds the sample (e.g. whole blood, plasma, serum, etc.) to the Symphony cartridge. After scanning the patient ID, the Symphony cartridge is inserted into the Symphony analyzer and the operator initiates the fully automated test. Each analyzer can run up to six cartridges simultaneously, either with six different patient samples or six different tests, providing quantitative measurements used for improved patient management and clinical decision-making.

Our current supply agreement for Symphony cartridges from Toray Industries is valid through October 2025, at which point we expect the agreement to expire. To date, we have relied on Toray's development and manufacturing of the Symphony cartridges. We have encountered several technical challenges in the performance and quality of the Symphony cartridges. We are currently preparing to transfer the intellectual property underlying production of the cartridges from Toray to an in-house facility for redevelopment. We are also beginning the process of redeveloping aspects of the cartridges to address several technical challenges to bring our product to a level consistent with the necessary performance and quality requirements. To address the technical challenges related to the Symphony cartridges, we expect the redevelopment work will occur over at least the next year. In particular, several individual components in the cartridges need to be replaced and/or validated due to limited supply or discontinuation (including the antibody used in the cartridge). In addition, we are working to correct several reliability and stability issues with the cartridge product.

After the cartridge redevelopment is completed, we plan to transfer the manufacturing process to an FDA-registered CMO. We expect that production lots for validation testing to support the FDA submission will be available once the transfer to an FDA registered CMO is completed. At this time, we do not anticipate being able to perform analytical performance validation testing until mid-2027.

Manufacturing

We plan to manufacture our analyzers through Sanyoseiko Co. Ltd. ("Sanyoseiko"), as a contract manufacturing organizations ("CMO"), and we have a contract with Sanyoseiko for this purpose.

Once redeveloped, we plan to transfer manufacturing of our cartridges to Sanyoseiko, or other suitable CMO. We currently do not have a contract for the manufacture of the redeveloped cartridges.

Sanyoseiko had been selected as our CMO due to their core competencies in manufacturing and quality system recognized by the FDA. Sanyoseiko's facilities are located in Japan. We currently license the technology for the Symphony cartridges from Toray. Our license grants us exclusive global marketing rights, with the exception of Japan. Bluejay holds the rights to manufacture the analyzers.

FDA Regulatory Strategy

Our current regulatory strategy is designed to support commercialization of Symphony in the United States once we receive marketing authorization from the FDA. In May 2023, we submitted a pre-submission application to the FDA presenting study designs to validate Symphony IL-6 for use with hospitalized sepsis patients. We participated in a pre-submission meeting with the FDA on August 11, 2023, and at the meeting the FDA provided feedback on the study design, determined that the submission of a 510(k) is the appropriate premarket submission pathway, and requested that certain data be provided in the 510(k). Based on this feedback, we determined to proceed on this basis, which considers the FDA's feedback.

In the second quarter of 2024, we completed a multicenter SYmphony IL-6 MONitoring Sepsis ("SYMON") clinical study investigating the role of interleukin-6 (IL-6) in patients diagnosed with sepsis and septic shock. This prospective study assessed the performance of IL-6 upon initial presentation to the intensive care unit (ICU). A primary analysis of the SYMON-I pilot clinical study (registered clinical trial number NCT06181604) highlighted that IL-6 levels within 24 hours of sepsis or septic shock diagnosis and admission to the ICU may predict patient mortality out to 28 days. Furthermore, a secondary outcome of the SYMON-I study showed that IL-6 levels within 24 hours of sepsis or septic shock diagnosis and admission to the ICU is a predictor of patient mortality during their hospitalization. Other secondary outcomes showed that lactate and Sequential Organ Failure Assessment (SOFA), standard clinical tests used for sepsis and septic shock patients, were not predictors of patient mortality out to 28 days. We believe that the findings underscore the potential importance of IL-6 as a predictor and provide new insights into the potential pathways for improving sepsis outcomes.

Using the data analysis from the SYMON-I pilot clinical study, we initiated the SYMON-II pivotal clinical study in the third quarter of 2024. The SYMON II clinical study has three components: (1) collection, freezing, and biobanking of patient samples, (2) measuring IL-6 concentrations in the biobanked samples near the end of patient enrollment or after the patient enrollment has completed, and (3) analysis of the IL-6 data with the patient outcomes to see if the established IL-6 cutoff value has been validated for 28-day all-cause mortality. Patient enrollment started during the fourth quarter of 2024. Our goal is to use the Symphony IL-6 test to complete the testing in the SYMON-II clinical trial.

If we are able to complete the SYMON-II clinical study and the results are positive, we intend to use the data generated from SYMON-II to support a 510(k) application to the FDA. This application is currently expected to be based on the following intended use: "Symphony IL-6 is intended for use to determine the IL-6 concentration as an aid in assessing the cumulative 28-day risk of all-cause mortality in conjunction with other laboratory findings and clinical assessments for patients diagnosed with sepsis or septic shock in the ICU." We also plan to present the SYMON-I and SYMON-II results at future national scientific meetings and publish them in peer-reviewed journals. Subject to achieving needed funding and successfully addressing the technical challenges that are described above, our goal is to be in position to submit a 510(k) regulatory application to the FDA in the fourth quarter of 2027, with an objective of achieving FDA approval as early as the third quarter of 2028.

Our ability to engage in and complete the activities needed for an FDA submission will be contingent upon us addressing these and other challenges, including possessing and/or raising sufficient capital, remaining a going concern, and producing product capable of supporting our product requirements and meeting analytical validation and clinical validation.

Sales and Marketing

Until such time as Symphony products may be authorized by the FDA, our sales and marketing efforts are intended to focus on brand awareness and market education to potential customers, emphasizing the value of monitoring a critical care patient's IL-6 levels to improve decision making and patient outcomes. If the device is cleared by the FDA, we intend to target sales to ERs and ICUs at United States hospitals, as well as to long-term acute care facilities. We hope to establish a market presence by selling Symphony devices and tests both directly and through various distribution channels to maximize sales volume and market penetration. In addition to our hope to sell Symphony for eventual use in the patient care market, we are also evaluating sales of Symphony devices for "research use only" purposes.

License Agreement

We depend on Toray's intellectual property to develop the Symphony cartridges upon which the Symphony platform relies. On October 6, 2020, we entered into a License and Supply Agreement, as amended (the "License Agreement"), with Toray, providing us with an exclusive global license with Toray, excluding Japan, to use their patents and know-how related to the Symphony detection cartridges for the manufacturing, marketing and sale of the products (as defined in the License Agreement).

On October 23, 2023, we entered into an Amended and Restated License Agreement (the "New Toray License Agreement") and a Master Supply Agreement (the "New Toray Supply Agreement" and, together, the "Toray Agreements") with Toray. Under the New Toray License Agreement, we continue to license from Toray intellectual property rights needed to manufacture single-use test cartridges, and we have received the right to sublicense certain Toray intellectual property to Sanyoseiko in connection with our ongoing agreement with Sanyoseiko to manufacture our Symphony analyzers and cartridges. In addition, the New Toray License Agreement provides for the transfer of certain technology related to the cartridges to Sanyoseiko. The royalty payments we are required to pay Toray have been reduced under the New Toray License Agreement from 15% to 7.5% (or less in certain circumstances) of net sales of certain cartridges for a term of 10 years. A 50% reduction in the royalty rate applies upon expiry of applicable Toray patents on a product-by-product and country-by-country basis. The New Toray License Agreement contemplates that applicable royalty payment obligations from us to Toray for other products will be determined separately in the future.

We are currently preparing to transfer the intellectual property and know-how related to the cartridges to an in-house facility for redevelopment. After the cartridge redevelopment is completed, we plan to transfer the manufacturing process to an FDA-registered CMO for validation testing and commercial manufacturing. We do not currently expect to be able to complete this transfer prior to the end of 2026, at the earliest. If Toray were to assert that we have not established a facility to manufacture our cartridges prior to the expiration of the supply agreement (which is currently expected to occur in October 2025), Toray could assert that we are in material breach of the license agreement and seek to terminate it as early as November 2025. If Toray sought to terminate the license, and was successful in doing so, we would lose access to certain technology required to produce the cartridges that our Symphony system relies on to function, which would likely result in a material adverse effect on our commercialization efforts. We are in the process of negotiating an agreement with Toray to, among other things, clarify that Toray will not seek to terminate the license agreement in connection with the expiration of the supply agreement.

Intellectual Property, Proprietary Technology

In the fourth quarter of 2024, we submitted a provisional patent to the U.S. Patent Office. The provisional patent is to establish a priority date to protect certain utilizations of IL-6 with sepsis patients. We plan to file a Patent Cooperation Treaty (PCT) application in the fourth quarter of 2025 for the inventions.

We do not currently directly hold any granted patents. We rely on a combination either directly or through the License Agreement with Toray of patent, copyright, trade secret, trademark, confidentiality agreements, and contractual protection to establish and protect our proprietary rights. Of these patents we rely on, the protections expire internationally in 2027 and 2028, while Toray patents in the U.S. expire on March 18, 2029 and February 22, 2030. As described above, we are currently working toward a goal of achieving FDA approval of the Symphony product as early as the third quarter of 2028, which means that even if meet our timeline, the period of time we will have to commercialize our product under the protection of these patents is expected to be very narrow.

In connection with prior development work performed by Bluejay, we plan to apply for patent protections related to certain design improvements made to the Symphony technology platform.

Competition

There are currently no FDA cleared or approved IL-6 tests on the market. There are IL-6 tests granted FDA Emergency Use Authorization (EUA) for use with only COVID-19 patients, including the Roche Cobas®, Siemens ADVIA Centaur® and Beckman Coulter Access 2®, which are laboratory size equipment and require pre-processing of whole blood prior to performing their test. We believe that Symphony, which is designed for many liquid sample types including whole blood, provides us with a substantial competitive advantage over our existing competition that will sustain through commercialization, despite the major life science companies and consistent entry of innovative start-ups that define our competitive landscape.

Employees

As of May 2, 2025, we have 6 full-time employees. We also contract with several consultants and contractors performing accounting, finance, regulatory advisory, investor relations and manufacturing scale-up support. None of our employees are represented by labor unions or covered by collective bargaining agreements.

Going Concern Uncertainty

We incurred substantial losses of approximately $7.7 million and $10.0 million for fiscal years 2024 and 2023, respectively, and from our inception through December 31, 2024, we had an accumulated deficit of approximately $34.7 million. We do not currently generate any operating income. As of December 31, 2024, we possessed cash and cash equivalents of approximately $4.3 million, while having current liabilities of approximately $0.8 million. We expect that our net cash used in operating activities will continue to be negative over at least the next several years as we redevelop aspects of the Symphony cartridges and conduct clinical trial work and, if such redevelopment and trials are successful, begin preparation of an FDA submission. These financial results and financial position, and our expected forward-looking outwork of significant negative cash flow in the future, raise substantial doubt with respect to our ability to continue as a going concern. As a result of our lack of cash, we have slowed the timeline of our clinical trial work to preserve cash resources in the near-term, and we expect that this will delay our Symphony platform regulatory submission timeline until the fourth quarter of 2027, at the earliest, if we are even able to generate sufficient clinical trial results to support such a submission. If we fail to obtain additional material financing in the near-term, our clinical trials and targeted FDA submission timeline could be delayed further, and we could be forced to abandon such activities entirely and cease operations, with the possible loss of such properties or assets. If we are unable to obtain additional financing as we continue to generate negative cash flow, our board of directors could determine to cause the Company to undertake a process of liquidation under Chapter 7 of applicable U.S. bankruptcy laws, or otherwise seek other protection under such laws. In such event, we expect that holders of shares of our common stock would recoup little if any material value in such process.

Warrant Inducement Transaction

On April 7, 2025, we entered into inducement letter agreements (the "Inducement Letter Agreements") with certain existing holders (the "Holders") of the Company's existing Class C warrants, pursuant to which such Holders agreed to purchase an aggregate of 1,085,106 shares of the Company's common stock, par value $0.0001 per share (the "Common Stock"), originally issued to the Holders on June 28, 2024 (the "Existing Warrants"). Pursuant to the Inducement Letter Agreements, the Holders agreed to immediately exercise for cash the Existing Warrants at a reduced exercise price of $3.42 per share (from the prior exercise price of $16.30 per share), and in connection therewith, the parties agreed that the Holders would receive new Class E warrants (the "New Warrants") to purchase up to 1,085,106 unregistered shares of Common Stock (the "New Warrant Shares") for an immediate payment of $0.125 per New Warrant. Each New Warrant has an initial exercise price equal to $3.42 per share, is immediately exercisable, and expires on April 8, 2030.

June 2024 Offering

On June 28, 2024, we sold in a public offering (the "June 2024 Offering"), (i) 11,541 common units (the "Common Units"), each consisting of one share of common stock, two Class C Warrants and one Class D Warrant and (ii) 95,815 prefunded units (the "Prefunded Units"), each consisting of one prefunded warrant to purchase one share of common stock (each, a "Prefunded Warrant"), two Class C Warrants and one Class D Warrant. The Common Units were sold at a price of $81.50 per unit and the Prefunded Warrants were sold at a price of $81.495 per unit. As of December 31, 2024, all Prefunded Warrants have been exercised in full. Pursuant to an engagement letter dated June 6, 2024, by and between the Company and Aegis, the Company paid Aegis a total cash fee of $743,750 equal to 8.5% of the gross proceeds received in the June 2024 Offering. The gross proceeds to the Company from the June 2024 Offering were $8,569,075. The Company incurred offering costs of $1,133,419.

May 2024 Bridge Financing

On May 31, 2024, we entered into a Note Purchase Agreement with an accredited investor (the "NPA"), and a Securities Purchase Agreement with three accredited investors (the "SPA"), which transactions closed on June 3, 2024.

Under the terms of the NPA, the investors provided us with $1,000,000 in cash in exchange for the issuance of a senior secured note. As of December 31, 2024, a total of $1,176,470 was repaid to the NPA investors. The difference between such note and the subscription amount, initially recorded as a discount on the notes, was the result of the discount factor included in the NPA of approximately 17.6%.

Under the terms of the SPA, the three investors collectively provided us $1,000,000 in cash in exchange for the issuance of senior secured notes ($333,333 each), and the collective issuance of 1,451 shares of the Company's common stock. The fair value of the common stock issued in connection with the SPA was $307,563. As of December 31, 2024, a total of $1,111,110 was repaid to the SPA investors. The difference between such notes and the subscription amounts, initially recorded as a discount on the notes, was the result of the discount factor included in the SPA of 11.11%.

January 2024 Public Offering

On December 27, 2023, we commenced a public offering ("the January 2024 Public Offering") for the issuance and sale of (i) 1,344 shares (the "January 2024 Shares") of our common stock, par value $0.0001 per share and (ii) prefunded warrants to purchase up to an aggregate of 5,386 shares of common stock (the "January 2024 Prefunded Warrants"). The January 2024 Shares and January 2024 Prefunded Warrants were sold together with warrants to purchase up to an aggregate of 6,730 shares of common stock at an exercise price of $520.00 per share (the "January 2024 Warrants").

Pursuant to an engagement letter, dated as of August 7, 2023, as amended October 11, 2023, by and between the Company and H.C. Wainwright & Co., LLC ("Wainwright"), we paid Wainwright a total cash fee equal to 7.0% of the gross proceeds received in the offering. We also paid Wainwright a management fee equal to 1.0% of the gross proceeds raised in the offering and certain expenses incurred in connection with the offering.

In addition, we issued to Wainwright, or its designees, warrants to purchase up to an aggregate 471 shares of common stock (the "January 2024 Placement Agent Warrants"), which represents 7.0% of the aggregate number of shares of common stock and Prefunded Warrants sold in the January 2024 Public Offering. The January 2024 Placement Agent Warrants have substantially the same terms as the January 2024 Warrants, except that the January 2024 Placement Agent Warrants have an exercise price equal to $650.00, or 125% of the offering price per share of common stock and related Warrant sold in the offering and expire on the fifth anniversary from the date of the commencement of sales in the offering.

The January 2024 Public Offering closed on January 2, 2024. Since the closing, all of the January 2024 Prefunded Warrants have been exercised in full.

August 2023 Registered Direct Offering and Concurrent Private Placement

On August 24, 2023, we entered into a securities purchase agreement with certain institutional and accredited investors (the "August 2023 Purchase Agreement") relating to the registered direct offering and sale of 540 shares (the "August 2023 Offering") of our common stock, and a concurrent private placement (the "August 2023 Private Placement") of unregistered warrants to purchase up to 540 shares of our common stock (the "August 2023 Warrants"). Each August 2023 Warrant is exercisable for one share of common stock (the "August 2023 Warrant Shares") at an exercise price of $2,896.00 per share, will be immediately exercisable upon issuance and will expire five (5) years from the date of issuance.

The common stock sold in the August 2023 Offering was sold at a purchase price of $2,946.00 per share (which amount included a purchase price of $50.00 per accompanying August 2023 Warrant). Our gross proceeds from the August 2023 Offering and the August 2023 Private Placement were approximately $1.59 million, before deducting placement agent fees and offering expenses.

Pursuant to an engagement letter, dated as of August 7, 2023, by and between us and Wainwright, as a part of compensation, we issued to Wainwright or its designees, warrants to purchase up to 36 shares of common stock (the "August 2023 Placement Agent Warrants"). The August 2023 Placement Agent Warrants have substantially the same terms as the August 2023 Warrants, except that the August 2023 Placement Agent Warrants have an exercise price equal to $3,684.00 per share and a term of five (5) years from the commencement of the sales pursuant to the August 2023 Offering.

The August 2023 Offering and August 2023 Private Placement closed on August 28, 2023.

Reverse Stock Splits

On November 18, 2024, we effected a reverse stock split of our shares of common stock at a ratio of 1-for-50 (the "November 2024 Reverse Stock Split"). On June 20, 2024, we effected a reverse stock split of our shares of common stock at a ratio of 1-for-8 (the "June 2024 Reverse Stock Split"). On July 24, 2023, we effected a reverse stock split of our shares of common stock at a ratio of 1-for-20 (the "2023 Reverse Stock Split," and together with the November 2024 Reverse Stock Split and the June 2024 Reverse Stock Split, the "Reverse Stock Splits"). In each case, the Company's common stock continued trading on Nasdaq on a post-split basis under the Company's existing trading symbol, "BJDX."

All historical share and per share amounts reflected throughout this prospectus have been adjusted to reflect the Reverse Stock Splits. However, our periodic and current reports and all other documents incorporated by reference into this prospectus that were filed prior to November 18, 2024 do not give effect to the November 2024 Reverse Stock Split, our periodic and current reports and all other documents incorporated by reference into this prospectus that were filed prior to June 20, 2024 do not give effect to the 2024 Reverse Stock Split, and our periodic and current reports and all other documents incorporated by reference into this prospectus that were filed prior to July 24, 2023 do not give effect to the 2023 Reverse Stock Split.

Risks Associated with Our Business

Our business is subject to a number of risks of which you should be aware before making an investment decision. These risks are discussed more fully in the "Risk Factors" section of this prospectus immediately following this prospectus summary and in Part I, Item 1A "Risk Factors" of our Annual Report on Form 10-K for the fiscal year ended December 31, 2024, incorporated by reference in this prospectus. These risks include the following:

- We have incurred significant losses since our inception, do not currently generate any operating income, and will continue to incur losses as we work to obtain product approval, and thus we may never achieve or maintain profitability.

- We will require material additional funding to finance our operations to continue as a going concern, which may not be available to us on acceptable terms, or at all, and our lack of cash resources has slowed the timeline of our clinical trial work and could cause us to run out of cash resources in the near-term.

- Since the initial public offering of our common stock in November 2021, the market price of our common stock has fallen by more than 99.9%, and we expect to need additional funding amounts substantially greater than the current market capitalization of our common stock, which may result in future dilution that coincides with further material declines in the trading price of our common stock beyond the substantial declines that have occurred in recent years.

- The number of shares of common stock underlying our outstanding warrants is several times greater than our currently outstanding common stock, which could have a negative effect on the market price of our common stock and make it more difficult for us to raise funds through future equity offerings. In addition, in connection with any merger, consolidation or sale of all or substantially all of our assets, holders of our outstanding warrants would be entitled to receive the Black Scholes value of such warrants, which may reduce the consideration otherwise available for payment to holders of our common stock.

- Our common stock is currently listed for quotation on the Nasdaq Capital Market, but we may be unable to meet requirements for continued listing in the future.

- We may be obligated to current and/or prior financial advisors under engagement letters that we enter into from time to time.

- Our license and supply arrangements with Toray, which relate to the license of the core technology used in our Symphony Cartridges and the supply of cartridge intermediates from Toray to SanyoSeiko for SanyoSeiko to manufacture cartridges for Bluejay, are subject to significant risks that may threaten our viability or otherwise have a material adverse effect on us and our business, assets and its prospects.

- We do not currently have sufficient supply of, or know-how from Toray to produce the capture antibody for our cartridges that we currently depend on.

- We might not be able to discover the underlying cause of an ongoing performance reproducibility issue with our product, and if the issues are ultimately determined to be inherent in the design process of the platform, we might have to undertake a significant adjustment to our process and materials.

- Our Symphony platform, including its software and systems, may contain undetected errors, which could limit our ability to provide our products and diminish the attractiveness of our offerings.
- If we or our manufacturers fail to comply with the regulatory quality system regulations or any applicable equivalent regulations, our proposed operations could be interrupted, and our operating results would suffer.
- If we are found to have violated laws protecting the confidentiality of patient health information, we could be subject to civil or criminal penalties, which could increase our liabilities and harm our reputation or our business.
- Significant raw material shortages, supplier capacity constraints, supplier disruptions, and sourcing issues may adversely impact or limit our products sales and or impact our product margins.
- Our ability to solve ongoing issues with critical raw material supply, stability, and reliability of the Symphony Cartridge product may adversely impact our ability to complete clinical trial work and commercialize Symphony.
- The regulatory approval process which we may be required to navigate may be expensive, time-consuming, and uncertain and may prevent us from obtaining clearance for our planned products.
- Our Symphony platform may be sold as a research use only product. The FDA could disagree with this strategy and subject the product to regulation as a regulated medical device, which could increase our costs and delay our commercialization efforts, thereby materially and adversely affecting our business and results of operations.
- Clinical data obtained in the future may not meet the required objectives, which could delay, limit or prevent any regulatory approval.
- We may be unable to complete required clinical evaluations, or we may experience significant delays in completing such clinical evaluations, which could prevent or significantly delay our targeted product launch timeframe and impair our viability and business plan.
- We and our suppliers may not meet regulatory quality standards applicable to our manufacturing processes, which could have an adverse effect on our business, financial condition, and results of operations.
- We may be liable if the FDA or another regulatory agency concludes that we have engaged in the off-label promotion of our products.
- Legislative or regulatory reforms may make it more difficult and costly for us to obtain regulatory clearance or approval of any future products and to manufacture, market and distribute our products after clearance or approval is obtained.
- We depend on intellectual property licensed from Toray, and any dispute over the license would significantly harm our business.
- We will depend primarily on Toray to file, prosecute, maintain, defend and enforce intellectual property that we license from it and that is material to our business.
- We and Toray may be unable to protect or enforce the intellectual property rights licensed to us, which could impair our competitive position.
- We and/or Toray may be subject to claims alleging the violation of the intellectual property rights of others.
- We and Toray may be subject to claims challenging the invention of the intellectual property that we license from Toray.

- We are currently only pursuing one aspect of analytical validation, one of three series of validation tests required for FDA clearance, and we cannot be certain how long the remaining tests will take us.

- The FDA could request additional data or testing after our submission for application, requiring additional costs and delaying approval.

- We face intense competition in the diagnostic testing market, particularly in the IL-6 space, and as a result we may be unable to effectively compete in our industry.

- Sales of substantial amounts of our securities in the public market could depress the market price of our common stock.

- Failure to maintain effective internal controls in accordance with Section 404 of the Sarbanes-Oxley Act could have material adverse effect on our business and stock price. Our President and Chief Executive Officer, in addition to serving as principal executive officer, currently serves as our principal financial and accounting officer, and we have no employees devoted on a full-time basis to our finance, accounting, legal or compliance functions, which may substantially increase the likelihood that we will fail to successfully maintain effective internal controls over financial reporting, or effective disclosure controls and procedures.

Implications of Being an Emerging Growth Company

We are an emerging growth company as defined in the Jumpstart Our Business Startups Act of 2012 (the "JOBS Act"). We may remain an "emerging growth company" until as late as December 31, 2027 (the fiscal year-end following the fifth anniversary of the completion of our initial public offering, though we may cease to be an "emerging growth company" earlier under certain circumstances, including (1) if the market value of our common stock that is held by nonaffiliates exceeds $700 million as of any June 30, in which case we would cease to be an "emerging growth company" as of the following December 31, or (2) if our gross revenue exceeds $1.235 billion in any fiscal year. "Emerging growth companies" may take advantage of certain exemptions from various reporting requirements that are applicable to other public companies, including not being required to comply with the auditor attestation requirements of Section 404 of the Sarbanes-Oxley Act of 2002, reduced disclosure obligations regarding executive compensation in our periodic reports and proxy statements and exemptions from the requirements of holding a nonbinding advisory vote on executive compensation and stockholder approval of any golden parachute payments not previously approved. Investors could find our common stock less attractive because we may rely on these exemptions. If some investors find our common stock less attractive as a result, there may be a less active trading market for our common stock and our stock price may be more volatile.

In addition, Section 102 of the JOBS Act also provides that an "emerging growth company" can take advantage of the extended transition period provided in Section 7(a)(2)(B) of the Securities Act, for complying with new or revised accounting standards. An "emerging growth company" can therefore delay the adoption of certain accounting standards until those standards would otherwise apply to private companies.

Corporate Information

We were incorporated under the laws of the State of Delaware on March 20, 2015. Our principal executive offices are located at 360 Massachusetts Avenue, Suite 203, Acton, MA 01720 and our telephone number is (844) 327-7078. Our website address is www.bluejaydx.com. We do not incorporate the information on, or accessible through, our website into this prospectus, and you should not consider any information on, or accessible through, our website as part of this prospectus.

Offered Shares

Pursuant to the Inducement Letter Agreements, the Selling Stockholders agreed to immediately exercise for cash the Existing Warrants at a reduced exercise price of $3.42 per share (from the prior exercise price of $16.30 per share), and in connection therewith, the parties agreed that the Selling Stockholders would receive new Class E warrants (the "New Warrants") to purchase up to 1,085,106 unregistered shares of Common Stock (the "New Warrant Shares") for an immediate payment of $0.125 per New Warrant. Each New Warrant has an initial exercise price equal to $3.42 per share, is immediately exercisable, and expires on April 8, 2030. We are filing this registration statement to cover the resale of the 1,085,106 New Warrant Shares issuable upon exercise of the New Warrants.

The Offering

Shares of common stock offered by the Selling Stockholders:	1,085,106 shares of common stock
Terms of this offering:	The Selling Stockholders may sell, transfer or otherwise dispose of any or all of the Shares offered by this prospectus from time to time as described under the caption "Plan of Distribution" in this prospectus
Use of proceeds:	All proceeds from the sale of shares of common stock offered hereby will be for the account of the Selling Stockholders. We will not receive any proceeds from the sale of common stock offered hereunder, although we will receive the net proceeds of any Warrants exercised for cash. See the caption "Use of Proceeds" in this prospectus.
Risk factors:	Investing in our common stock involves a high degree of risk and purchasers of our common stock may lose their entire investment. See the information under the caption "Risk Factors" on page 12 of this prospectus and the other information included elsewhere in this prospectus and incorporated by reference herein for a discussion of factors you should consider before deciding to invest in our securities.
Nasdaq Capital Market symbol:	BJDX

When we refer to the Selling Stockholders in this prospectus, we are referring to the Selling Stockholders identified in this prospectus and, as applicable, their permitted transferees, or other successors-in-interest that may be identified in a supplement to this prospectus or, if required, a post-effective amendment to the registration statement of which this prospectus is a part.

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 and in the documents incorporated by reference in this prospectus before you decide to purchase our common stock. In particular, you should carefully consider and evaluate the risks and uncertainties described in "Part I – Item 1A. Risk Factors" of our most recent Annual Report on Form 10-K, as updated by the additional risks and uncertainties set forth or incorporated by reference herein. Additional risks and uncertainties that we are unaware of or that we believe are not material at this time could also materially adversely affect our business, financial condition, or results of operations. Any of these risks and uncertainties 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.

This prospectus also contains forward-looking statements that involve risks and uncertainties. Our actual results could differ materially from those anticipated in these forward-looking statements as a result of certain factors, including the risks faced by us described below and elsewhere in this prospectus. See "Special Note Regarding Forward-Looking Statements" for information relating to these forward-looking statements.

SPECIAL NOTE REGARDING FORWARD-LOOKING STATEMENTS

This prospectus and the documents incorporated herein by reference contain forward-looking statements which are made pursuant to the safe harbor provisions of Section 27A of the Securities Act of 1933, as amended, and Section 21E of the Securities Exchange Act of 1934, as amended, or the Exchange Act. In some cases, you can identify these statements by forward-looking words such as "may," "might," "should," "would," "could," "expect," "plan," "anticipate," "intend," "believe," "estimate," "predict," "potential" or "continue," and the negative of these terms and other comparable terminology. These forward-looking statements, which are subject to known and unknown risks, uncertainties and assumptions about us, may include projections of our future financial performance based on our growth strategies and anticipated trends in our business. These statements are only predictions based on our current expectations and projections about future events. There are important factors that could cause our actual results, level of activity, performance or achievements to differ materially from the results, level of activity, performance or achievements expressed or implied by the forward-looking statements. We have included important factors in the cautionary statements included in this prospectus, particularly under "Risk Factors" on page 12 of this prospectus and the documents incorporated herein that we believe could cause actual results or events to differ materially from the forward-looking statements that we make.

While we believe we have identified material risks in our Annual Report on Form 10-K for the fiscal year ended December 31, 2024, which is incorporated by reference in this prospectus, together with the information included in this prospectus and the documents incorporated by reference herein, and in any free writing prospectus that we have authorized for use in connection with this offering, these risks and uncertainties are not exhaustive. Other sections of this prospectus and the documents incorporated herein by reference may describe additional factors that could adversely impact our business and financial performance. Moreover, we operate in a very competitive and rapidly changing environment. New risks and uncertainties emerge from time to time, and it is not possible to predict all risks and uncertainties, nor can we assess the impact of all factors on our business or the extent to which any factor, or combination of factors, may cause actual results to differ materially from those contained in any forward-looking statements.

Although we believe the expectations reflected in the forward-looking statements are reasonable, we cannot guarantee future results, level of activity, performance or achievements. Moreover, neither we nor any other person assumes responsibility for the accuracy or completeness of any of these forward-looking statements. You should not rely upon forward-looking statements as predictions of future events. You should read this prospectus and any free writing prospectus and the documents that we have incorporated by reference to this prospectus and filed as exhibits to this prospectus completely and with the understanding that our actual future results may be materially different from what we expect.

We caution you not to place undue reliance on the forward-looking statements, which speak only as of the date of this prospectus in the case of forward-looking statements contained in this prospectus.

You should not rely upon forward-looking statements as predictions of future events. Our actual results and financial condition may differ materially from those indicated in the forward-looking statements. We qualify all of our forward-looking statements by these cautionary statements. Although we believe that the expectations reflected in the forward-looking statements are reasonable, we cannot guarantee future results, levels of activity, performance or achievements. Therefore, you should not rely on any of the forward-looking statements. In addition, with respect to all of our forward-looking statements, we claim the protection of the safe harbor for forward-looking statements contained in the Private Securities Litigation Reform Act of 1995.

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 purchase our securities, you should carefully consider the risk factors discussed and incorporated by reference in this prospectus and the documents incorporated herein.

USE OF PROCEEDS

The net proceeds from any disposition of the Shares will be received by the Selling Stockholders. We will not receive any of the proceeds from any such Shares offered by this prospectus. We will, however, receive the net proceeds of any Warrants exercised for cash. We have agreed to pay all costs, expenses, and fees relating to the registration of the Shares covered by this prospectus.

SELLING STOCKHOLDERS

This prospectus covers 1,085,106 shares of our common stock that may be sold or otherwise disposed of by the Selling Stockholders.

The following table sets forth certain information with respect to the Selling Stockholders, including (i) the shares of our common stock beneficially owned by the Selling Stockholders prior to this offering, (ii) the number of shares being offered by the Selling Stockholders pursuant to this prospectus, and (iii) the Selling Stockholders' beneficial ownership after completion of this offering, assuming that all of the shares covered hereby (but none of the other shares, if any, held by the Selling Stockholders) are sold to third parties.

The table is based on information supplied to us by the Selling Stockholders, with beneficial ownership and percentage ownership determined in accordance with the rules and regulations of the SEC. This information does not necessarily indicate beneficial ownership for any other purpose. The percentage of beneficial ownership after this offering is based on 1,494,167 shares outstanding on May 2, 2025.

The registration of the Shares does not mean that the Selling Stockholders will sell or otherwise dispose of all or any of these shares of common stock. The Selling Stockholders may sell or otherwise dispose of all, a portion or none of such shares from time to time. We do not know the number of Shares, if any, that will be offered for sale or other disposition by the Selling Stockholders under this prospectus. Additionally, we do not know how long the Selling Stockholders will hold the Warrants, whether any will exercise the Warrants, and upon such exercise, how long such Selling Stockholders will hold the Shares before selling them, and we currently have no agreements, arrangements or understandings with the Selling Stockholders regarding the sale of any of the Shares. Furthermore, the Selling Stockholders may have sold, transferred, or disposed of the Shares covered hereby in transactions exempt from the registration requirements of the Securities Act since the date on which we filed this prospectus.

When we refer to the Selling Stockholders in this prospectus, we are referring to the Selling Stockholders identified in this prospectus and, as applicable, their permitted transferees or other successors-in-interest that may be identified in a supplement to this prospectus or, if required, a post-effective amendment to the registration statement of which this prospectus is a part.

	Beneficial Ownership Before This Offering		Beneficial Ownership After This Offering	
Selling Stockholder	**Number of Shares Beneficially Owned**	**Number of Shares Being Offered**	**Number of Shares Beneficially Owned**	**Percentage of Outstanding Shares**
Anson East Master Fund LP [(1)]	74,558	80,950	—	*
Anson Investments Master Fund LP[(2)]	74,558	287,002	—	*
Armistice Capital, LLC[(3)]	25,478	22,132	3,346	*
Boothbay Absolute Return Strategies, LP[(4)]	2,696	2,694	2	*
Boothbay Diversified Alpha Master Fund LP[(5)]	1,156	1,155	1	*
CVI Investments, Inc. [(6)]	72,148	72,148	—	*
Efrat Investments LLC[(7)]	14,430	14,430	—	*
Kingsbrook Opportunities Master Fund LP[(8)]	963	962	1	*
L1 Capital Global Opportunities Master Fund[(9)]	74,558	221,252	483	*
Meteora Select Trading Opportunities Master, LP[(10)]	14,430	14,430	—	*
Sabby Volatility Warrant Master Fund, Ltd. [(11)]	74,558	367,951	128,705	4.99%

* Less than 1%

(1) Anson Advisors Inc and Anson Funds Management LP, the Co-Investment Advisers of Anson East Master Fund LP ("Anson"), hold voting and dispositive power over the Common Shares held by Anson. Tony Moore is the managing member of Anson Management GP LLC, which is the general partner of Anson Funds Management LP. Moez Kassam and Amin Nathoo are directors of Anson Advisors Inc. Mr. Moore, Mr. Kassam and Mr. Nathoo each disclaim beneficial ownership of these Common Shares except to the extent of their pecuniary interest therein. The principal business address of Anson is Maples Corporate Services Limited, PO Box 309, Ugland House, Grand Cayman, KY1-1104, Cayman Islands.

(2) Anson Advisors Inc and Anson Funds Management LP, the Co-Investment Advisers of Anson Investments Master Fund LP ("Anson"), hold voting and dispositive power over the Common Shares held by Anson. Tony Moore is the managing member of Anson Management GP LLC, which is the general partner of Anson Funds Management LP. Moez Kassam and Amin Nathoo are directors of Anson Advisors Inc. Mr. Moore, Mr. Kassam and Mr. Nathoo each disclaim beneficial ownership of these Common Shares except to the extent of their pecuniary interest therein. The principal business address of Anson is Maples Corporate Services Limited, PO Box 309, Ugland House, Grand Cayman, KY1-1104, Cayman Islands.

(3) The securities are directly held by Armistice Capital Master Fund Ltd., a Cayman Islands exempted company (the "Master Fund"), and may be deemed to be beneficially owned by: (i) Armistice Capital, LLC ("Armistice Capital"), as the investment manager of the Master Fund; and (ii) Steven Boyd, as the Managing Member of Armistice Capital. The warrants are subject to a beneficial ownership limitation of 4.99%, which such limitation restricts the Selling Stockholder from exercising that portion of the warrants that would result in the Selling Stockholder and its affiliates owning, after exercise, a number of shares of common stock in excess of the beneficial ownership limitation. The address of Armistice Capital Master Fund Ltd. is c/o Armistice Capital, LLC, 510 Madison Avenue, 7th Floor, New York, NY 10022.

(4) Boothbay Absolute Return Strategies LP, a Delaware limited partnership (the "Fund"), is managed by Boothbay Fund Management, LLC, a Delaware limited liability company (the "Adviser"). The Adviser, in its capacity as the investment manager of the Fund, has the power to vote and the power to direct the disposition of all securities held by the Fund. Ari Glass is the Managing Member of the Adviser. Each of the Fund, the Adviser and Mr. Glass disclaim beneficial ownership of these securities, except to the extent of any pecuniary interest therein.

(5) Boothbay Diversified Alpha Master Fund LP, a Cayman Islands limited partnership (the "Fund"), is managed by Boothbay Fund Management, LLC, a Delaware limited liability company (the "Adviser"). The Adviser, in its capacity as the investment manager of the Fund, has the power to vote and the power to direct the disposition of all securities held by the Fund. Ari Glass is the Managing Member of the Adviser. Each of the Fund, the Adviser and Mr. Glass disclaim beneficial ownership of these securities, except to the extent of any pecuniary interest therein.

(6) Heights Capital Management, Inc., the authorized agent of CVI Investments, Inc. ("CVI"), has discretionary authority to vote and dispose of the shares held by CVI and may be deemed to be the beneficial owner of these shares. Martin Kobinger, in his capacity as President of Heights Capital Management, Inc., may also be deemed to have investment discretion and voting power over the shares held by CVI. Mr. Kobinger disclaims any such beneficial ownership of the shares. CVI Investments, Inc.is affiliated with one or more FINRA member, none of whom are currently expected to participate in the sale pursuant to the prospectus contained in the Registration Statement of Shares purchased by the Investor in this Offering.

(7) The principal business address of Efrat Investments LLC is 54 Lenox Ave, Clifton, NJ 07012.

(8) Kingsbrook Partners LP ("Kingsbrook Partners") is the investment manager of Kingsbrook Opportunities Master Fund LP ("Kingsbrook Opportunities") and consequently has voting control and investment discretion over securities held by Kingsbrook Opportunities. Kingsbrook Opportunities GP LLC ("Opportunities GP") is the general partner of Kingsbrook Opportunities and may be considered the beneficial owner of any securities deemed to be beneficially owned by Kingsbrook Opportunities. KB GP LLC ("GP LLC") is the general partner of Kingsbrook Partners and may be considered the beneficial owner of any securities deemed to be beneficially owned by Kingsbrook Partners. Ari J. Storch, Adam J. Chill and Scott M. Wallace are the sole managing members of Opportunities GP and GP LLC and as a result may be considered beneficial owners of any securities deemed beneficially owned by Opportunities GP and GP LLC. Each of Kingsbrook Partners, Opportunities GP, GP LLC and Messrs. Storch, Chill and Wallace disclaim beneficial ownership of these securities.

(9) David Feldman and Joel Arber are the Directors of L1 Capital Global Opportunities Master Fund Ltd. ("L1 Capital"). To the extent Mr. Feldman and Mr. Arber are deemed to beneficially own such shares, Mr. Feldman and Mr. Arber disclaim beneficial ownership of these securities, except to the extent of any pecuniary interest therein. The principal business address of the L1 Capital is 161A Shedden Road, 1 Artillery Court, PO Box 10085, Grand Cayman KY1-1001, Cayman Islands.

(10) The principal business address Meteora Select Trading Opportunities Master, LP is 1200 N Federal Hwy, Suite 200 Boca Raton, FL 33432. Vikas Mittal may be deemed to have sole voting and dispositive power with respect to the shares held by Meteora Select Trading Opportunities Master, LP. Mr. Mittal disclaims beneficial ownership of these securities, except to the extent of any pecuniary interest therein.

(11) The number of shares beneficially owned prior to the offering includes: (i) 144,051 shares of common stock issuable upon exercise of prefunded warrants, (ii) 367,951 shares of common stock issuable upon exercise of the Warrants, (iii) 125 shares of common stock issuable upon exercise of warrants, (iv) 3,000 shares of common stock issuable upon exercise of January 2024 Warrants and (v) 270 shares of common stock issuable upon exercise of August 2023 Warrants. The warrants are subject to a beneficial ownership limitation of 4.99%, which such limitation restricts the Selling Stockholder from exercising that portion of the warrants that would result in the Selling Stockholder and its affiliates owning, after exercise, a number of shares of common stock in excess of the beneficial ownership limitation. Sabby Management, LLC is the investment manager of Sabby Volatility Warrant Master Fund, Ltd. and shares voting and investment power with respect to these shares in this capacity. As manager of Sabby Management, LLC, Hal Mintz also shares voting and investment power on behalf of Sabby Volatility Warrant Master Fund, Ltd. Each of Sabby Management, LLC and Hal Mintz disclaims beneficial ownership over the securities listed except to the extent of their pecuniary interest therein.

PLAN OF DISTRIBUTION

We are registering the resale of the Shares on behalf of the Selling Stockholders. The Selling Stockholders and any of their pledgees, assignees, and successors-in-interest may, from time to time, on a continuous or delayed basis, sell any or all of their Shares covered hereby directly to one or more purchasers or through brokers, dealers, or underwriters who may act solely as agents at market prices prevailing at the time of sale, at prices related to the prevailing market prices, at negotiated prices, or at fixed prices, which may be changed on any stock exchange, market, or trading facility on which the Shares are traded or in private transactions. The sale of the Selling Stockholders' common stock offered by this prospectus may be effected in one or more of the following methods:

- ordinary brokerage transactions and transactions in which the broker-dealer solicits purchasers;
- transactions involving cross or block trades;
- purchases by a broker-dealer as principal and resale by the broker-dealer for its account;
- exchange distributions in accordance with the rules of the applicable exchange;
- privately negotiated transactions;
- short sales after the registration statement of which this prospectus forms a part becomes effective;
- transactions through broker-dealers that agree with the Selling Stockholders to sell a specified number of such Shares at a stipulated price per share;
- through the writing or settlement of options or other hedging transactions, whether through an options exchange or otherwise;
- "at the market" into an existing market for the common stock;
- through the writing of options on the Shares;
- a combination of any such methods of sale; and
- any other method permitted pursuant to applicable law.

In order to comply with the securities laws of certain states, if applicable, the Shares of the Selling Stockholders may be sold only through registered or licensed brokers or dealers. In addition, in certain states, such Shares may not be sold unless they have been registered or qualified for sale in the state or an exemption from the registration or qualification requirement is available and complied with.

The Selling Stockholders may also sell or transfer Shares pursuant to any available exemption from the registration requirements of the Securities Act, including under Rule 144 promulgated under the Securities Act, or Rule 144, if available, rather than under this prospectus. In addition, the Selling Stockholders may transfer the Shares by other means not described in this prospectus.

The Selling Stockholders may also sell the Shares directly to market makers acting as principals and/or broker-dealers acting as agents for themselves or their customers. Such broker-dealers may receive compensation in the form of discounts, concessions, or commissions from the Selling Stockholders and/or the purchasers of Shares for whom such broker-dealers may act as agents or to whom they sell as principal or both, which compensation as to a particular broker-dealer might be in excess of customary commissions. Market makers and block purchasers purchasing the Shares will do so for their own account and at their own risk. It is possible that the Selling Stockholders will attempt to sell the Shares in block transactions to market makers or other purchasers at a price per share that may be below the then market price.

Brokers, dealers, underwriters, or agents participating in the distribution of the Shares held by the Selling Stockholders as agents may receive compensation in the form of commissions, discounts, or concessions from the Selling Stockholders and/or purchasers of the common stock for whom the broker-dealers may act as agent. The Selling Stockholders may agree to indemnify any agent, dealer, or broker-dealer that participates in transactions involving sales of the Shares if liabilities are imposed on that person under the Securities Act.

The Selling Stockholders have advised us that they have not entered into any agreements, understandings, or arrangements with any underwriters or broker-dealers regarding the sale of their shares of common stock, nor is there an underwriter or coordinating broker acting in connection with a proposed sale of shares of common stock by the Selling Stockholders. If we are notified by the Selling Stockholders that any material arrangement has been entered into with a broker-dealer for the sale of shares of common stock, if required, we will file a supplement to this prospectus.

In connection with the sale of the Shares or interests therein, the Selling Stockholders may enter into hedging transactions with broker-dealers or other financial institutions, which may in turn engage in short sales of the Shares in the course of hedging the positions they assume. The Selling Stockholders may also sell Shares short and deliver these Shares to close out their short positions, or loan or pledge the Shares to broker-dealers that in turn may sell these Shares. The Selling Stockholders may also enter into option or other transactions with broker-dealers or other financial institutions or create one or more derivative securities that require the delivery to such broker-dealer or other financial institution of Shares offered by this prospectus, which securities such broker-dealer or other financial institution may resell pursuant to this prospectus (as supplemented or amended to reflect such transaction).

With regard only to the Shares it sells for its own behalf, each Selling Stockholder may be deemed an “underwriter” within the meaning of the Securities Act. This offering as it relates to each Selling Stockholder will terminate on the date that all Shares offered by the Selling Stockholder pursuant to this prospectus have been sold.

We may suspend the sale of Shares by the Selling Stockholders pursuant to this prospectus for certain periods of time for certain reasons, including if the prospectus is required to be supplemented or amended to include additional material information.

If the Selling Stockholders use this prospectus for any sale of the Shares, the Selling Stockholders will be subject to the prospectus delivery requirements of the Securities Act.

We are required to pay the expenses in connection with the registration of the Shares being registered hereunder. We have agreed to indemnify the Selling Stockholders against certain losses, claims, damages, and liabilities, including liabilities under the Securities Act.

We agreed to keep this prospectus effective until the date that (i) the securities may be resold by the Selling Stockholders without registration and without regard to any volume or manner-of-sale limitations by reason of Rule 144, without the requirement for us to be in compliance with the current public information under Rule 144 or any other rule of similar effect or (ii) all of the securities have been sold pursuant to this prospectus or Rule 144 or any other rule of similar effect.

The anti-manipulation rules of Regulation M under the Exchange Act may apply to sales of our common stock and activities of the Selling Stockholders and their affiliates. Regulation M may restrict the ability of any person engaged in the distribution of our common stock to engage in market-making activities with respect to the Shares. All of the foregoing may affect the marketability of the Shares and the ability of any person to engage in market-making activities with respect to the Shares.

LEGAL MATTERS

The validity of the shares of common stock offered hereby is being passed upon for us by Hogan Lovells US LLP.

EXPERTS

Wolf & Company P.C., independent registered public accounting firm, has audited our consolidated financial statements included in our Annual Report on Form 10-K, for the year ended December 31, 2024, as set forth in their report (which contains an explanatory paragraph describing conditions that raise substantial doubt about our ability to continue as a going concern as described in Note 1 to the consolidated financial statements), which is incorporated by reference in this prospectus and elsewhere in the registration statement. Our financial statements are incorporated by reference in reliance on Wolf & Company P.C.'s report, given on their authority as experts in accounting and auditing.

INCORPORATION BY REFERENCE

The SEC allows 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 SEC file number for the documents incorporated by reference in this prospectus is 001-41031. The documents incorporated by reference into this prospectus contain important information that you should read about us. All documents incorporated by reference into this prospectus that were filed prior to November 18, 2024 do not give effect to the November 2024 Reverse Stock Split, all documents incorporated by reference into this prospectus that were filed prior to June 20, 2024 do not give effect to the June 2024 Reverse Stock Split and all documents incorporated by reference into this prospectus that were filed prior to July 24, 2023 also do not give effect to the 2023 Reverse Stock Split.

The following documents are incorporated by reference into this document:

- our Annual Report on Form 10-K for the year ended December 31, 2024 (filed with the SEC on March 31, 2025), as amended by Amendment No. 1 thereto (filed with the SEC on April 29, 2025);
- our Current Report on Form 8-K filed with the SEC on April 9, 2025; and
- the description of our capital stock included under the caption "Description of Capital Stock" contained in our Registration Statement on Form 8-A dated and filed with the SEC on November 5, 2021, as amended by the description of our common stock contained in Exhibit 4.10 to our Annual Report on Form 10-K for the year ended December 31, 2023, including all amendments and reports updating that description.

We also incorporate by reference into this prospectus 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 after the date of the initial registration statement of which this prospectus is a part and prior to the effectiveness of such registration statement and all documents that are filed by us with the SEC pursuant to Sections 13(a), 13(c), 14 or 15(d) of the Exchange Act after the date of this prospectus 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.

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

We will provide without charge to each person, including any beneficial owner, to whom this prospectus is delivered, upon written or oral request, a copy of any or all documents that are incorporated by reference into this prospectus, but not delivered with the prospectus, other than exhibits to such documents unless such exhibits are specifically incorporated by reference into the documents that this prospectus incorporates. You should direct oral or written requests by one of the following methods. Attention: Investor Relations, Bluejay Diagnostics, Inc., 360 Massachusetts Avenue, Suite 203, Acton, MA, 01720, (844) 327-7078. You may also access these documents, free of charge on the SEC's website at www.sec.gov or on the "Investors" page of our website at www.bluejaydx.com. The information found on our website, or that may be accessed by links on our website, is not part of this prospectus. We have included our website address solely as an inactive textual reference. Investors should not rely on any such information in deciding whether to purchase our common stock.

WHERE YOU CAN FIND MORE INFORMATION

We filed with the SEC a registration statement under the Securities Act for the securities offered by this prospectus. This prospectus does not contain all of the information in the registration statement and the exhibits and schedule that were filed with the registration statement. For further information with respect to us and our securities, we refer you to the registration statement and the exhibits and schedule that were filed with the registration statement. Statements contained in this prospectus about the contents of any contract or any other document that is filed as an exhibit to the registration statement are not necessarily complete, and we refer you to the full text of the contract or other document filed as an exhibit to the registration statement. The SEC maintains an Internet website at http://www.sec.gov that contains reports, proxy and information statements, and other information regarding registrants that file electronically with the SEC.

We file periodic reports and current reports under the Exchange Act, including Annual Reports on Form 10-K, Quarterly Reports on Form 10-Q and Current Reports on Form 8-K, and other information with the Securities and Exchange Commission. These periodic reports and other information are available for inspection and copying at the SEC regional offices, public reference facilities and on the website of the SEC referred to above.

We make available free of charge on or through our internet website our annual reports on Form 10-K, quarterly reports on Form 10-Q, current reports on Form 8-K, and amendments to those reports filed or furnished pursuant to Section 13(a) or 15(d) of the Securities Exchange Act of 1934 as soon as reasonably practicable after we electronically file such material with, or furnish it to, the SEC. The information found on our website, www.bluejaydx.com, other than as specifically incorporated by reference in this prospectus, is not part of this prospectus.