Filed Pursuant to Rule 424(b)(3)
Registration No. 333-280317

PROSPECTUS

4,761,904 shares of Common Stock

Inhibikase Therapeutics, Inc.

This prospectus relates to the resale from time to time, by the selling stockholder (the "Selling Stockholder") identified in this prospectus under the caption "Selling Stockholder" of up to 4,761,904 shares of common stock, par value $0.001 per share (the "Common Stock"), of Inhibikase Therapeutics, Inc. (the "Company"), consisting of (i) up to 3,344,904 shares of Common Stock which the selling stockholder may acquire upon the exercise of certain outstanding warrants (the "Private Common Warrants") and (ii) up to 1,417,000 shares of Common Stock which the Selling Stockholder may acquire upon the exercise of certain outstanding warrants (the "Inducement Warrants").

We issued the Private Common Warrants to the Selling Stockholder in a private placement concurrent with a registered direct offering (the "Offering") of 714,527 shares of Common Stock and pre-funded warrants (the "Pre-Funded Warrants") to purchase 957,925 shares of Common Stock. We issued the Inducement Warrants to the Selling Stockholder in connection with the repricing of certain warrants issued by the Company to the Selling Stockholder on January 27, 2023 (the "Existing Warrants") pursuant to a letter agreement (the "Inducement Letter") by and between the Company and the Selling Stockholder, dated as of May 20, 2024, and in connection with the Selling Stockholder exercising certain Existing Warrants. Each Private Common Warrant and each Inducement Warrant has an exercise price of $1.68 per share of Common Stock and will become exercisable upon Stockholder Approval. "Stockholder Approval" means the approval required by the applicable rules and regulations of The Nasdaq Capital Market ("Nasdaq") from the Company's stockholders with respect to the issuance of shares of Common Stock underlying the Private Common Warrants and the Inducement Warrants. "Stockholder Approval Date" means the date that the Company notifies the Selling Stockholder that it has obtained Stockholder Approval. 1,672,452 of the Private Common Warrants will expire on the twelve-month anniversary of the Stockholder Approval Date (the "Series A Warrants") and 1,672,452 of the Private Common Warrants will expire on the five-year anniversary of the Stockholder Approval Date (the "Series B Warrants"). 708,500 of the Inducement Warrants will expire on the twelve-month anniversary of the Stockholder Approval Date (the "Series C Warrants") and 708,500 of the Inducement Warrants will expire on the five-year anniversary of the Stockholder Approval Date ("Series D Warrants").

The closing of the issuance and sale of the Private Common Warrants, Common Stock,Pre-Funded Warrants and Inducement Warrants was consummated on May 22, 2024.

The Selling Stockholder and any of its pledgees, assignees and successors-in-interest may, from time to time, sell any or all of their securities covered hereby on the principal trading market or any other stock exchange, market or trading facility on which the securities are traded or in private transactions. These sales may be at fixed or negotiated prices. See "Plan of Distribution" in this prospectus for more information. We will not receive any proceeds from the resale or other disposition of the Common Stock by the Selling Stockholder. However, we will receive the proceeds of cash exercises, if any, of the Private Common Warrants and Inducement Warrants. See "Use of Proceeds" beginning on page 14 and "Plan of Distribution" beginning on page 22 of this prospectus for more information.

Our Common Stock is listed on Nasdaq under the symbol "IKT." On June 25, 2024, the last reported sale price of our Common Stock was $1.41 per share.

We are an "emerging growth company" as defined in Section 2(a) of the Securities Act of 1933, as amended (the "Securities Act"), and, as such, have elected to comply with certain reduced disclosure and regulatory requirements.

Investing in our securities involves a high degree of risk. See " Risk Factors" beginning on page 8 of this prospectus and under similar headings in the other documents that are incorporated by reference into this prospectus for a discussion of information that should be considered in connection with an investment in our securities.

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 securities are not being offered in any jurisdiction where the offer is not permitted.

The date of this prospectus is June 26, 2024.

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Prospectus

ABOUT THIS PROSPECTUS

The information contained in this prospectus is not complete and may be changed. You should rely only on the information provided in or incorporated by reference in this prospectus, or in a related free writing prospectus, or documents to which we otherwise refer you. We have not authorized anyone else to provide you with different information.

We have not authorized any dealer, agent or other person to give any information or to make any representation other than those contained or incorporated by reference in this prospectus or any related free writing prospectus. You must not rely upon any information or representation not contained or incorporated by reference in this prospectus or any related free writing prospectus. This prospectus and any related free writing prospectus, if any, do not constitute an offer to sell or the solicitation of an offer to buy any securities other than the registered securities to which they relate, nor do this prospectus and any related free writing prospectus, if any, constitute an offer to sell or the solicitation of an offer to buy securities in any jurisdiction to any person to whom it is unlawful to make such offer or solicitation in such jurisdiction. You should not assume that the information contained in this prospectus and any related free writing prospectus, if any, is accurate on any date subsequent to the date set forth on the front of such document or that any information we have incorporated by reference is correct on any date subsequent to the date of the document incorporated by reference, even though this prospectus and any related free writing prospectus is delivered or securities are sold on a later date.

We have not done anything that would permit this offering or possession or distribution of this prospectus or any free writing prospectus in any jurisdiction where action for that purpose is required, other than in the United States. You are required to inform yourself about and to observe any restrictions relating as to this offering and the distribution of this prospectus and any such free writing prospectus outside the United States.

We further note that the representations, warranties and covenants made by us in any agreement that is filed as an exhibit to any document that is incorporated by reference in this prospectus were made solely for the benefit of the parties to such agreement, including, in some cases, for the purpose of allocating risk among the parties to such agreements, and should not be deemed to be a representation, warranty or covenant to you. Moreover, such representations, warranties or covenants were accurate only as of the date when made. Accordingly, such representations, warranties and covenants should not be relied on as accurately representing the current state of our affairs.

PROSPECTUS SUMMARY

This summary highlights certain information about us, this offering and information appearing elsewhere in this prospectus and in the documents we incorporate by reference in this prospectus. This summary is not complete and does not contain all of the information that you should consider before investing in our securities. After you carefully read this summary, to fully understand our Company and this offering and its consequences to you, you should read this entire prospectus and any related free writing prospectus authorized by us, including the information referred to under the heading "Risk Factors" in this prospectus beginning on page 8, and any related free writing prospectus, as well as the other documents that we incorporate by reference into this prospectus, including our financial statements and the notes to those financial statements, which are incorporated herein by reference from our Annual Report on Form 10-K for the year ended December 31, 2023, filed on March 27, 2024, and our Quarterly Report on Forml0-Q for the three month period ended March 31, 2024, filed on May 15, 2024. Please read "Where You Can Find More Information" on page 31 of this prospectus.

In this prospectus, unless context requires otherwise, references to "we," "us," "our," or "the Company" refer to Inhibikase Therapeutics, Inc., a Delaware corporation and its consolidated subsidiaries. We own or have rights to trademarks and trade names that we use in connection with the operation of our business. In addition, our name, logos and website name and address are our trademarks. Solely for convenience, in some cases, the trademarks and trade names referred to in this prospectus are listed without the applicable ® and ™ symbols, but we will assert, to the fullest extent under applicable law, our rights to these trademarks and trade names. Other trademarks and trade names appearing in this prospectus are the property of their respective owners.

Overview

Inhibikase Therapeutics, Inc.

Company Overview

We are a clinical-stage pharmaceutical company developing protein kinase inhibitor therapeutics to modify the course of Parkinson's disease ("PD"), Parkinson's-related disorders and other diseases of the Abelson Tyrosine Kinases. The Company's multi-therapeutic pipeline has a primary focus on neurodegeneration and its lead program utilizing Risvodetinib (also known as IkT-148009), a selective inhibitor of the non-receptor Abelson Tyrosine Kinases, targets the treatment of Parkinson's disease inside and outside the brain as well as other diseases that arise from Abelson Tyrosine Kinases. In 2021, we commenced clinical development of Risvodetinib (IkT-148009), which we believe can modify the course of Parkinson's disease including its manifestation in the gastrointestinal, or GI, tract. In January, 2023, the Company initiated its Phase 2 program, termed 'the 201 trial' (www.the201trial.com), for Risvodetinib (IkT-148009) as a treatment for Parkinson's disease and began the process of opening up to 34 sites in the U.S. As of June 17, 2024, 32 sites are open and the trial is fully enrolled. As of June 17, 2024, 32 mild and 4 moderate possibly treatment-related adverse events have been reported across all enrolled patients taking Risvodetinib (IkT-148009). Results from this trial will be reported in the fourth quarter of 2024. The emerging path to complete enrollment has prompted us to take further advantage of this multi-dose study by planning to extend the 201 trial by up to 12 months, subject to additional resources. In addition, emerging biomarker data from the 201 trial evaluating pathological alpha-synuclein in multiple tissues and fluids supported our recent grant submissions to the National Institute of Neurological Disease and Stroke. One of these grants, if approved, will introduce our novel monoclonal antibody to track phospho-Tyr39-alpha-synuclein in the clinical trial setting, which we believe in turn will enhance the meaning of biomarker measurements. We believe the utilization of this antibody in tissue biopsy and fluid analysis will enable us to confirm target engagement and evaluate the effect of Risvodetinib (IkT-148009) on the underlying pathology responsible for disease.

The twelve-week 201 trial is evaluating three doses in participants who have untreated Parkinson's disease on a staggered schedule and is placebo controlled with 1:1:1:1 randomization. The primary endpoints of this trial are safety and tolerability and a hierarchy of 15 secondary endpoints will evaluate treatment benefit in the brain and

GI tract. The recent analysis of 11 patients who participated in the 201 trial prior to the temporary clinical hold issued by the FDA in November, 2022, which was lifted in January, 2023, suggested that Risvodetinib (IkT-148009) may have some effect on disease. These participants were withdrawn from the trial following the FDA's temporary clinical hold. As detailed at the Movement Disorder Society Congress held August 2023, the primary secondary endpoint is a functional assessment comprised of the sum of Parts 2 and 3 of the Movement Disorder Society Universal Parkinson's Disease Rating Scale (MDS-UPDRS Parts II+III). This sum showed an average -8.7 point improvement in the three participants on the 200 mg dose relative to baseline, while three placebo participants increased by +1.7 points; this represents an average spread of -10.4 points. A lower (or negative) change relative to placebo of greater than -3 to -6 points might be considered a measure of improvement. Given the small sample size on this dose, we believe it is premature to conclude a clinical benefit, but this observation reinforces our desire to extend the trial for an additional 12 months to potentially obtain a clear picture of clinical benefit over a total measurement of 15 months. Blinded functional assessment and biomarker data supports the trial extension and may reinforce the observations made from the 11 unblinded patients.

In March 2023, we opened our Investigational New Drug Application, or IND, for Risvodetinib(IkT-148009) as a treatment for the Parkinson's-related orphan disease Multiple System Atrophy, or MSA. Our evaluation of Risvodetinib (IkT-148009) in MSA was benefited by a grant received from the National Institute of Neurological Diseases and Stroke, an Institute of the National Institutes of Health, for $0.39 million to fund animal model studies of Risvodetinib (IkT-148009) as a therapy for MSA. Two different animal studies were undertaken to evaluate whether Risvodetinib(IkT-148009) could have an impact on disease in the animal. One model evaluated the ability of Risvodetinib (IkT-148009) to modify disease early in its progression, while the second model is evaluating whether Risvodetinib (IkT-148009) can correct functional loss much later in the disease course. The early progression model study has now been shown to preserve nearly normal functional activity following 20 weeks of once daily dosing relative to untreated controls. Preservation of function in this model occurred with substantial reduction of the underlying alpha-synuclein protein pathology. The second model evaluating Risvodetinib (IkT-148009) late in the disease course is ongoing. In addition, Risvodetinib (IkT-148009) was recently given Orphan Drug Designation by the FDA for the treatment of MSA. We are working with the National Institute of Neurological Diseases and Stroke to possibly initiate a Phase 2/3 program to evaluate Risvodetinib (IkT-148009) as a treatment for MSA through a clinical trial network supported by the Institute. The proposed Phase 2/3 study will have a primary efficacy endpoint following once daily dosing at one of two dose levels for twelve months. We plan to submit complementary regulatory documents for Risvodetinib (IkT-148009) to European Union authorities in 2024.

We are also developing platform technologies to improve delivery of protein kinase inhibitors in patients. One example of our potential ability to improve drug delivery is IkT-001Pro, a prodrug of the anticancer agent imatinib mesylate, which is intended to treat Stable Phase Chronic Myelogenous Leukemia, or SP-CML. A three-part dose finding/dose equivalence study in 66 healthy volunteers (known as 'the 501 trial') has completed withIkT-001Pro. The study was designed to evaluate the 96-hour pharmacokinetics of imatinib delivered as IkT-001Pro and determine the dose of IkT-001Pro that can deliver the equivalent of either 400 mg or 600 mg imatinib mesylate. As of the date of this Report, bioequivalence to 400 mg imatinib mesylate has been established to our satisfaction for a 600 mg dose of IkT-001Pro. We further evaluated 600 mg imatinib mesylate and believe that a 900 mg dose of IkT-001Pro is the preferred dose of IkT-001Pro to deliver a dose of imatinib equivalent to 600 mg imatinib mesylate. We studied 800 mgIkT-001Pro and found it to be nearly equivalent to 600 mg imatinib mesylate. We may study higher doses of IkT-001Pro to cover the full range of doses approved for imatinib mesylate to treat up to 11 adult and pediatric blood cancers.

On January 19, 2024, members of the Company along with its medical oncology consultants met with the FDA Review Team (the "Review Team") from the Division of Hematologic Malignancies in a Pre-New Drug Application, or NDA, meeting to discuss our bioequivalence studies ofIkT-001Pro and its path to approval. All questions were addressed and summarized in official meeting minutes issued by the FDA on February 12, 2024. During the meeting we inquired whether additional clinical studies may be needed to seek approval and

discussed manufacturing and quality control requirements for approval. The Review Team acknowledged that the 505(b)(2) pathway appears to be the appropriate pathway for approval of IkT-001Pro and indicated that, pending formal review of our clinical data, clinical studies completed to date indicate that 600 mg and 800 mg IkT-001Pro provides similar exposures to 400 mg and 600 mg imatinib mesylate, respectively, subject to review of the NDA upon filing. In addition, given that imatinib mesylate is approved for use between 300 mg and 800 mg once daily for a variety of blood and gastrointestinal cancers, the Review Team stated that if we intend to seek approval across all currently approved indications, we should evaluate additional dose(s) as needed to measure the safety, tolerability and bioequivalent dose of IkT-001Pro that would deliver up to 800 mg, the highest approved dose of imatinib mesylate. The Review Team also discussed the possible difference between IkT-001Pro and imatinib mesylate absorption in the gut and recommended that we evaluate whether IkT-001Pro and imatinib mesylate behave differently with respect to certain gut transporters that regulate absorption. We are in alignment with the FDA and are initiating the necessary pre-clinical test to evaluate this further to ensure that delivery of imatinib by IkT-001Pro mimics imatinib mesylate in all respects. Finally, a number of recommendations were discussed to prevent the potential mix-up between 001Pro and imatinib mesylate either at the pharmacy or by patients for two drugs delivering the same active ingredient. We discussed alternate dosage forms for IkT-001Pro relative to imatinib mesylate as the primary mitigation strategy and will provide a justification of the dosage forms chosen and why they are unlikely to cause medication errors. To ensure that we meet the manufacturing requirements for approval, we will request milestone-based meetings with the Review Team as we complete the required manufacturing and quality control processes.

We are also evaluating the application of IkT-001Pro to pulmonary arterial hypertension (PAH). PAH is a rare disease of the pulmonary microvasculature with about 30,000 cases in the U.S., mostly in women between the ages of 30 and 60. The global PAH market size was valued at $7.66 billion in 2023 and is estimated to grow at a compound annual growth rate of 5.4% between 2024 to 2030. Most treatments for PAH attempt to address symptoms of this progressive disorder, but in the early 2010s, imatinib delivered by imatinib mesylate was shown to be a disease-modifying therapy for PAH. Co-administration of medications with harmful drug-drug interactions precluded the approval of imatinib asadd-on therapy in PAH. Today, on the other hand, changes to standard-of-care for these patients has reduced the safety risk from imatinib treatment in PAH in our view. As such, on April 5, 2024, members of the Company met with the FDA Division of Cardiology and Nephrology in a pre-IND meeting to discuss the Company's plan to utilize IkT-001Pro at 300 mg or 450 mg in a Phase 2/3 efficacy, safety and tolerability trial in World Health Organization Functional Class I patients. At the meeting, the FDA confirmed that IkT-001Pro would be viewed as a New Molecular Entity (NME) for PAH and that the appropriate path for approval is the 505(b)(2) statute. This opens up the possibility of IkT-001Pro being granted NME and patent exclusivity on approval. The period of exclusivity would be evaluated once the NDA is filed. The FDA requested that we conduct a comparative cell-culture based study of the hERG ion channel, a standard cardiovascular safety test performed for any NME for which a new IND is to be opened. The Company plans to complete this study later in the second quarter or in early third quarter of 2024 and file the IND. The Company is in active discussion with potential strategic partners on this program. The Company has also applied for Orphan Drug Designation for delivery of imatinib by IkT-001Pro for PAH.

We have also improved drug delivery of Risvodetinib (IkT-148009) through development of a tablet formulation, which we measured to nearly double the concentration of Risvodetinib (IkT-148009) delivered relative to the same dose previously administered as a gelatin capsule. This provides the opportunity to lower the effective oral dose, which could lead to further safety and tolerability improvements for Risvodetinib (IkT-148009). The Company plans to introduce the tablet formulation into the 12-month extension study, once implemented, as well as in all future clinical trials.

Finally, we are evaluating a number of research phase molecules (IkT-148x and BIP 4-7) for a variety of neurodegenerative disease indications across our pre-clinical development pipeline.

In our opinion, the multi-decade failures in the treatment of neurodegenerative diseases such as PD result from a lack of understanding of the biochemistry of the disease processes involved. Neurodegeneration is marked by a

progressive degeneration and loss of function of neurons which send and receive signals to and from the brain. Historically, the cause of a neurodegenerative disease was thought to be a “plaque” made up of a misfolded and/or aggregated protein(s). Therapeutic approaches, therefore, sought to remove “plaque” from the brain. A “plaque”-focused treatment strategy has failed to alter the course of Parkinson’s disease in two Phase 2 trials that reported results in 2020 and 2021. We believe we are different. We identified the proteins that become dysfunctional in a disease pathway and sought to understand how a dysfunctional protein causes disease and published those results in several high-profile peer reviewed publications. We believe our approach to PD and other neurological diseases has identified the underlying cause of disease and led to an understanding of how individual proteins are linked together to define the disease process. We believe our approach to neurodegenerative disease is validated by our 2022 and 2023 publications and oral presentations at the major academic and industry conferences in Parkinson’s and Alzheimer’s diseases.

To increase the probability of success, we are making parallel investments in several product candidates andback-up candidates, and plan to advance only those candidates to the later stages of clinical development that show strong preclinical and early clinical data. By developing a portfolio of product candidates across therapeutic indications, we can continuously apply learnings and tools across programs and leverage economies of scale in our research and development organization. Our target indications include diseases with large patient populations, such as PD, as well as orphan indications, such as, Multiple System Atrophy and Chronic Myelogenous Leukemia.

Pivot Arbitration

On April 26, 2024, we received a notice of a demand for arbitration with the American Arbitration Association from Pivot Holding LLC (“Pivot”), that alleges to be a successor in interest to Sphaera Pharma Pte. Ltd. (“Sphaera”), in connection with the Collaborative Research and Development Agreement dated February 29, 2012, as amended, between us and Sphaera. Pivot alleges breach of contract by us for failure to pay milestone payments and seeks damages of $1.625 million in milestone payments plus interest. We believe that Pivot’s claims are without merit and that we have not owed and do not owe any milestone payments to Pivot. We filed our Answering Statement on June 17, 2024, in which we asserted various defenses and a counterclaim seeking damages or offset of no less than $900,000. The parties have agreed to mediate before arbitrating and a mediation is scheduled for September 6, 2024.

Reduction of At The Market Offering

On February 1, 2024, we entered into an At The Market Offering Agreement (the “Sales Agreement”) with H.C. Wainwright & Co., LLC, as sales agent (the “Agent”), pursuant to which we may, from time to time, issue and sell shares of our common stock in an aggregate offering price of up to $5,659,255 through the Agent. The offer and sales of such shares of common stock made pursuant to the Sales Agreement are made under the Company’s effective “shelf” registration statement on Form S-3 (File No. 333-262551) dated February 11, 2022, the base prospectus contained therein, and a prospectus supplement (“ATM Prospectus Supplement”) related to the offering of such shares of common stock dated February 1, 2024. Under the terms of the Sales Agreement, the Agent may sell such shares of common stock at market prices by any method that is deemed to be an “at the market offering” as defined in Rule 415 under the Securities Act. As of May 20, 2024, we have sold 315,338 shares of common stock covered by the ATM Prospectus Supplement for an aggregate gross sales price of $849,187.85 prior to the filing of Prospectus Supplement No. 1 to the ATM Prospectus Supplement. On May 20, 2024, we filed Prospectus Supplement No. 1 to the ATM Prospectus Supplement to reduce the additional maximum aggregate gross sales price of our common stock that may be offered, issued and sold under the Sales Agreement to $50,000.

Company Information

We were incorporated in Delaware in 2010 as a successor to a Georgia limited liability company and commenced operations in September 2008. Our principal executive offices are located at 3350 Riverwood Parkway SE, Suite

1900, Atlanta, Georgia, 30339. We also maintain offices at 1 Cranberry Hill, Ste 200, Lexington, Massachusetts, 02421. Our telephone numbers are (678) 392-3419 and (617) 936-0184. Our website address is www.inhibikase.com. Information contained on our website is not incorporated by reference into this prospectus, and it should not be considered to be part of this prospectus.

Implications of Being an Emerging Growth Company

As a company with less than $1.235 billion in revenues during our last completed fiscal year, we qualify as 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 requirements that are otherwise applicable generally to public companies. These reduced reporting requirements include:

- an exemption from compliance with the auditor attestation requirement on the effectiveness of our internal control over financial reporting;
- an exemption from compliance with any requirement that the Public Company Accounting Oversight Board may adopt regarding a supplement to the auditor's report providing additional information about the audit and the financial statements;
- reduced disclosure about our executive compensation arrangements; and
- an exemption from the requirements to obtain anon-binding advisory vote on executive compensation or a stockholder approval of any golden parachute arrangements.

We have elected to take advantage of some, but not all, of the available benefits under the JOBS Act. Accordingly, the information contained herein may be different from the information you receive from other public companies in which you hold stock. Further, pursuant to Section 107 of the JOBS Act, as an emerging growth company, we have elected to use the extended transition period for complying with new or revised accounting standards until those standards would otherwise apply to private companies. As a result, our consolidated financial statements may not be comparable to the financial statements of issuers who are required to comply with the effective dates for new or revised accounting standards that are applicable to public companies, which may make our common stock less attractive to investors.

We will remain an emerging growth company until the earliest to occur of: (i) the end of the first fiscal year in which our annual gross revenues are $1.235 billion or more; (ii) the end of the first fiscal year in which we are deemed to be a "large accelerated filer," as defined in the Securities Exchange Act of 1934, as amended (the "Exchange Act"); (iii) the date on which we have, during the previous three-year period, issued more than $1.0 billion in non-convertible debt securities; and (iv) December 31, 2025.

THE OFFERING

Common Stock Offered by the Selling Stockholder:	Up to 4,761,904 shares of Common Stock, consisting of (i) up to 3,344,904 shares of Common Stock issuable upon exercise of the Private Common Warrants and (ii) up to 1,417,000 shares of Common Stock issuable upon exercise of the Inducement Warrants (in each case, subject to Stockholder Approval).
Use of Proceeds:	We will not receive any proceeds from the Common Stock offered by the Selling Stockholder under this prospectus. However, we will receive the proceeds of cash exercises, if any, of the Private Common Warrants and the Inducement Warrants. We intend to use the net proceeds from any cash exercise of the Private Common Warrants and the Inducement Warrants for general corporate purposes. See "Use of Proceeds."
Market for Common Stock:	Our Common Stock is listed on The Nasdaq Capital Market under the symbol "IKT." On June 25, 2024, the last reported sale price of our Common Stock was $1.41 per share.
Risk Factors	See "Risk Factors" beginning on page 8 and the other information included and incorporated in this prospectus for a discussion of factors you should carefully consider before investing in our securities.

RISK FACTORS

Investing in our securities involves a high degree of risk. In addition to the other information included or incorporated by reference in this prospectus, you should carefully consider the risks described below and in the section titled "Risk Factors" in our Annual Report on Form 10-K for our most recent fiscal year filed with the SEC, subsequent Quarterly Reports on Form 10-Q, any amendment or updates thereto reflected in subsequent filings with the SEC, and in other reports we file with the SEC that are incorporated by reference herein, before making an investment decision. The following risks are presented as of the date of this prospectus and we expect that these will be updated from time to time in our periodic and current reports filed with the SEC, which will be incorporated herein by reference. Please refer to these subsequent reports for additional information relating to the risks associated with investing in our securities.

The risks and uncertainties described therein and below could materially adversely affect our business, operating results and financial condition, as well as cause the value of our securities to decline. You may lose all or part of your investment as a result. You should also refer to the other information contained in this prospectus, or incorporated by reference, including our financial statements and the notes to those statements, and the information set forth under the caption "Special Note Regarding Forward-Looking Statements." Our actual results could differ materially from those anticipated in these forward-looking statements as a result of certain factors, including the risks mentioned below. Forward-looking statements included in this prospectus are based on information available to us on the date hereof, and all forward-looking statements in documents incorporated by reference are based on information available to us as of the date of such documents. We disclaim any intent to update any forward-looking statements. The risks described below and contained in our Annual Report on Form 10-K, Quarterly Reports on Form 10-Q and in our other periodic reports are not the only ones that we face. Additional risks not presently known to us or that we currently deem immaterial may also adversely affect our business operations.

Risks Related to this Offering

The sale or availability for sale of the shares of Common Stock pursuant to this prospectus may depress the price of our Common Stock, dilute the interest of our existing stockholders, and encourage short sales by third parties, which could further depress the price of our Common Stock.

To the extent that the Selling Stockholder sells shares of Common Stock pursuant to this prospectus, the market price of the shares of Common Stock may decrease due to the additional selling pressure in the market. In addition, the dilution from exercise of the Private Common Warrants and the Inducement Warrants may cause stockholders to sell their shares of Common Stock, which could further contribute to any decline in the price of the Common Stock. Any downward pressure on the price of the shares of Common Stock caused by the sale or potential sale of such shares could encourage short sales by third parties. Such sales could place downward pressure on the price of the Common Stock by increasing the number of shares of Common Stock being sold, which could further contribute to any decline in the market price of the shares of Common Stock.

Risks Related to Our Common Stock and Other Securities

We may be required to repurchase certain of our warrants.

Under the Common Warrants and the Inducement Warrants, in the event of a "Fundamental Transaction" (as defined in the applicable warrant and/or warrant agreement, which generally includes any merger with another entity, the sale, transfer or other disposition of all or substantially all of our assets to another entity, or the acquisition by a person of more than 50% of our Common Stock), each warrant holder will have the right at any time prior to the consummation of the Fundamental Transaction to require us to repurchase the warrant for a purchase price in cash equal to the Black Scholes value (as calculated under the warrant agreement) of the then remaining unexercised portion of such warrant on the date of such Fundamental Transaction, which may materially adversely affect our financial condition and/or results of operations and may prevent or deter a third party from acquiring us.

The exercisability of the Private Common Warrants and the Inducement Warrants is contingent upon us obtaining Stockholder Approval. If we do not obtain such Stockholder Approval, the Private Common Warrants and the Inducement Warrants may never become exercisable.

The Private Common Warrants and the Inducement Warrants are not immediately exercisable, as their exercisability is contingent upon us obtaining Stockholder Approval. The Private Common Warrants and the Inducement Warrants will become exercisable upon Stockholder Approval. The Series A Warrants and the Series C Warrants will expire on the twelve-month anniversary of the Stockholder Approval Date. The Series B Warrants and the Series D Warrants will expire on the five-year anniversary of the Stockholder Approval Date. In the event that we cannot obtain Stockholder Approval, the Private Common Warrants and the Inducement Warrants may never become exercisable. In no event will we be required to net cash settle any Private Common Warrant or any Inducement Warrant.

Risks Related to Our Business, Financial Condition and Capital Requirements

There is substantial doubt regarding our ability to continue as a going concern and our independent registered public accounting firm has included an explanatory paragraph relating to our ability to continue as a going concern in its report on our audited financial statements included in our Annual Report on Form 10-K for the fiscal year ended December 31, 2023. We will need to raise additional funding, which may not be available on acceptable terms, or at all. Failure to obtain this necessary capital when needed may force us to delay, limit or terminate our clinical trials or other operations.

We have incurred net losses and used significant cash in operating activities since inception, and we expect to continue to generate operating losses for the foreseeable future. As of March 31, 2024, we had an accumulated deficit of $71,550,360. As of March 31, 2024, we had cash and cash equivalents of $2,353,346 and marketable securities of $7,396,009, which we believe should be sufficient to fund our operating expenses through November 2024. We have based this estimate on assumptions that may prove to be wrong, and we could use our capital resources sooner than we currently expect. Pursuant to the requirements of Accounting Standards Codification (ASC) 205-40, Disclosure of Uncertainties about an Entity's Ability to Continue as a Going Concern, and as a result of our financial condition and other factors described herein, there is substantial doubt about our ability to continue as a going concern. Our ability to continue as a going concern will depend on our ability to obtain additional funding, as to which no assurances can be given. Our future success depends on our ability to raise capital and/or execute our current operating plan. However, we cannot be certain that these initiatives or raising additional capital, will be available to us or, if available, will be on terms acceptable to us. If we issue additional securities to raise funds, these securities may have rights, preferences, or privileges senior to those of our common stock, and our current stockholders may experience dilution. If we are unable to obtain funds when needed or on acceptable terms, we may be required to curtail our current clinical trials, cut operating costs, forego future development and other opportunities or even terminate our operations, which may involve seeking bankruptcy protection. We have identified conditions and events that raise doubt about our ability to continue as a going concern and our independent registered public accounting firm has included an explanatory paragraph relating to our ability to continue as a going concern in its report on our audited financial statements for the years ended December 31, 2023 and 2022 included in our Annual Report on Form 10-K for the fiscal year ended December 31, 2023.

SPECIAL NOTE REGARDING FORWARD-LOOKING STATEMENTS

This prospectus, 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 concerning our business, operations and financial performance and condition, as well as our plans, objectives and expectations for our business operations and financial performance and condition. Any statements contained herein that are not statements of historical facts may be deemed to be forward-looking statements. In some cases, you can identify forward-looking statements by terminology such as “can”, “may”, “could”, “should”, “assume”, “forecasts”, “believe”, “designed to”, “will”, “expect”, “plan”, “anticipate”, “estimate”, “potential”, “position”, “predicts”, “strategy”, “guidance”, “intend”, “budget”, “seek”, “project” or “continue”, or the negative thereof or other comparable terminology regarding beliefs, plans, expectations or intentions regarding the future. You should read statements that contain these words carefully because they:

- discuss our future expectations;
- contain projections of our future results of operations or of our financial condition; and
- state other “forward-looking” information.

We believe it is important to communicate our expectations. However, forward-looking statements are based on our current expectations, assumptions, estimates and projections about our business and our industry and are subject to known and unknown risks, uncertainties and other factors. Accordingly, our actual results and the timing of certain events may differ materially from those expressed or implied in such forward-looking statements due to a variety of factors and risks, including, but not limited to, those set forth under “Risk Factors” in this prospectus, including the documents incorporated herein by reference, and the following factors and risks:

- We are a clinical-stage drug development company with limited resources, a limited operating history and have no products approved for commercial sale, which may make it difficult to evaluate our current business and predict our future success and viability;
- If we are unable to successfully raise additional capital, our future clinical trials and product development could be limited and our long-term viability may be threatened;
- There is substantial doubt regarding our ability to continue as a going concern and our independent registered public accounting firm has included an explanatory paragraph relating to our ability to continue as a going concern in its report on our audited financial statements included in our Annual Report on Form 10-K for the fiscal year ended December 31, 2023.
- We will need to raise additional funding, which may not be available on acceptable terms, or at all. Failure to obtain this necessary capital when needed may force us to delay, limit or terminate our clinical trials or other operations;
- While the FDA lifted the clinical holds with respect to the Risvodetinib programs relating to Parkinson’s disease and Multiple System Atrophy, we may be subject to further clinical holds by the FDA in the future;
- Drug development is a highly uncertain undertaking and involves a substantial degree of risk. We have never generated any revenue from product sales, we may never generate any revenue from product sales, and we may fail to generate further revenue from grants or contracts or to be profitable;
- The wars between Russia and Ukraine and between Israel and Hamas could materially adversely affect our business, results of operations, and financial condition;
- Our results of operations have been adversely affected and, in the future, could be materially adversely impacted by theCOVID-19 virus;
- Adverse developments affecting financial institutions, companies in the financial services industry or the financial services industry generally, including those we do business with, could adversely affect our operations and liquidity;

- We have incurred significant net losses since our inception and anticipate that we will continue to incur net losses for the foreseeable future;
- Due to the significant resources required for the development of our programs, and depending on our ability to access capital, we must prioritize development of certain product candidates;
- Our business is highly dependent on the success of our initial product candidates targeting neurodegenerative diseases;
- We currently contract with various research institutions to perform the research and development activities needed to develop our products, and if we ever choose to or need to find alternative research institutions, we may not be able to do so at all or, if we are able to do so, it may be costly and may cause significant delays in the development and commercialization of our products;
- Positive results from early preclinical or clinical studies of our product candidates are not necessarily predictive of the results of later preclinical studies and any current and future clinical trials of our product candidates;
- We have no history of completing clinical trials for novel drug substances or commercializing pharmaceutical products, which may make it difficult to evaluate the prospects for our future viability;
- Our clinical trials may reveal significant adverse events, toxicities or other side effects not seen in our preclinical studies and may result in a safety profile that could inhibit regulatory approval or market acceptance of any of our product candidates;
- We have concentrated much of our research and development efforts on the treatment of neurodegenerative diseases, a field that has seen limited success in drug development;
- We may encounter substantial delays in our current and planned clinical trials, or may not be able to conduct or complete our clinical trials on the timelines we expect, if at all;
- Our current and planned clinical trials may fail to demonstrate substantial evidence of the safety and efficacy of our product candidates, which would prevent, delay or limit the scope of regulatory approval and commercialization;
- Clinical development is a lengthy and expensive process with an uncertain outcome, and failure can occur at any stage of clinical development;
- The manufacture of our product candidates is complex and difficulties may be encountered in production;
- If, in the future, we are unable to establish sales and marketing capabilities or enter into agreements with third parties to sell and market any product candidates we may develop, we may not be successful in commercializing those product candidates if and when they are approved;
- Even if any product candidates we develop receive marketing approval, they may fail to achieve the degree of market acceptance by physicians, patients, healthcare payors, and others in the medical community necessary for commercial success;
- Even if we are able to commercialize any product candidates, such products may become subject to unfavorable pricing regulations, third-party reimbursement practices, or healthcare reform initiatives, which would harm our business;
- The regulatory approval processes of the FDA, EMA and comparable foreign regulatory authorities are lengthy, time consuming, and inherently unpredictable. Regulatory authorities have substantial discretion in the approval process and may refuse to accept an application, may disagree with our regulatory strategy or proposed pathway for approval or may decide that our data are insufficient for approval and require additional preclinical, clinical or other studies;
- We expect to depend in whole or in part on collaborations with third parties for the research, development and commercialization of any product candidates we may develop;

- We contract with third parties for the manufacture of materials for our research programs, preclinical studies and current clinical trials and expect to continue to do so for any future clinical trials and for commercialization of any product candidates that we may develop;
- We depend on a small number of third-party suppliers for key raw materials used in the manufacturing processes for our product candidates, and the loss of these third-party suppliers or their inability to supply us with adequate raw materials could harm our business; and
- If we are unable to obtain and maintain patent protection for any product candidates we develop, our competitors could develop and commercialize products or technology similar or identical to ours, and our ability to successfully commercialize any product candidates we may develop, and our technology may be adversely affected.

All forward-looking statements and risk factors included in this prospectus are made as of the date hereof, and all forward-looking statements and risk factors included in documents incorporated herein by reference are made as of their original date, in each case based on information available to us as of the date hereof, or in the case of documents incorporated by reference, the original date of any such document, and we assume no obligations to update any forward-looking statement or risk factor, unless we are required to do so by law. If we do update one or more forward-looking statements, no inference should be drawn that we will make updates with respect to other forward-looking statements or that we will make any further updates to those forward-looking statements at any future time.

Forward-looking statements may include our plans and objectives for future operations, including plans and objectives relating to our products and our future economic performance, projections, business strategy and timing and likelihood of success. Assumptions relating to the foregoing involve judgments with respect to, among other things, future economic, competitive and market conditions, future business decisions, demand for our products and services, and the time and money required to successfully complete development and commercialization of our technologies, all of which are difficult or impossible to predict accurately and many of which are beyond our control.

Any of the assumptions underlying the forward-looking statements contained in this prospectus could prove inaccurate and, therefore, we cannot assure you that any of the results or events contemplated in any of such forward-looking statements will be realized. Based on the significant uncertainties inherent in these forward-looking statements, the inclusion of any such statement should not be regarded as a representation or as a guarantee by us that our objectives or plans will be achieved, and we caution you against relying on any of the forward looking-statements contained herein.

MARKET, INDUSTRY AND OTHER DATA

Market data and certain industry data and forecasts used throughout this prospectus were obtained from sources we believe to be reliable, including market research databases, publicly available information, reports of governmental agencies and industry publications and surveys. We have relied on certain data from third-party sources, including internal surveys, industry forecasts and market research, which we believe to be reliable based on our management's knowledge of the industry. Forecasts are particularly likely to be inaccurate, especially over long periods of time. In addition, we do not necessarily know what assumptions regarding general economic growth were used in preparing the third-party forecasts we cite. Statements as to our market position are based on the most currently available data. While we are not aware of any misstatements regarding the industry data presented in this prospectus and the documents incorporated by reference into this prospectus, our estimates involve risks and uncertainties and are subject to change based on various factors, including those discussed under the heading "Risk Factors" in this prospectus and the documents incorporated by reference into this prospectus.

USE OF PROCEEDS

We will not receive any proceeds from the sale of the shares of Common Stock by the Selling Stockholder. However, we will receive proceeds from the exercise of the Private Common Warrants and the Inducement Warrants by the Selling Stockholder to the extent they are exercised for cash. We estimate that the maximum proceeds that we may receive from the exercise of the Private Common Warrants and the Inducement Warrants, assuming all the Private Common Warrants and all the Inducement Warrants are exercised for cash at their exercise price of $1.68, will be approximately $8 million. We do not know, however, whether any of the Private Common Warrants or any of the Inducement Warrants will be exercised or, if any of the Private Common Warrants or any of the Inducement Warrants are exercised, when they will be exercised. It is possible that the Private Common Warrants and the Inducement Warrants will expire and never be exercised. There are circumstances under which the Private Common Warrants and the Inducement Warrants may be exercised on a cashless basis. In these circumstances, even if the Private Common Warrants and the Inducement Warrants are exercised, we may not receive any proceeds, or the proceeds that we do receive may be significantly less than what we might expect. We intend to use the aggregate net proceeds from the exercise of the Private Common Warrants and the Inducement Warrants for general corporate purposes. The actual allocation of proceeds realized from the exercise of the Private Common Warrants and the Inducement Warrants will depend upon the amount and timing of such exercises, our operating revenues and cash position at such time and our working capital requirements. The Selling Stockholder will pay any expenses incurred by it for brokerage, accounting, tax or legal services or any other expenses incurred by the Selling Stockholder in disposing of its shares of Common Stock. We will bear all other costs, fees and expenses incurred in effecting the registration of the shares covered by this prospectus, including, without limitation, all registration fees and fees and expenses of our counsel and our accountants.

MARKET PRICE OF OUR COMMON STOCK AND RELATED STOCKHOLDER MATTERS

Market Information

Our Common Stock is listed on The Nasdaq Capital Market under the symbol "IKT." A description of our Common Stock is set forth under the heading "Description of Capital Stock" beginning on page 24 of this prospectus.

The last reported sale price for our Common Stock on June 25, 2024 was $1.41 per share.

Holders

As of June 17, 2024, we had 14 record holders of our Common Stock and no preferred stock issued and outstanding. The number of record holders was determined from the records of our transfer agent and does not include beneficial owners of Common Stock whose shares are held in the names of various security brokers, dealers, and registered clearing agencies. The transfer agent and registrar of our Common Stock is Equiniti Trust Company, LLC. The transfer agent and registrar's address is 6201 15th Ave, Brooklyn, NY 11219.

Dividend Policy

We have never declared or paid any cash dividends on our Common Stock. We do not anticipate paying any cash dividends to stockholders in the foreseeable future. In addition, any future determination to pay cash dividends will be at the discretion of our board of directors and will be dependent upon our financial condition, results of operations, capital requirements, and such other factors as our board of directors deem relevant.

PRIVATE PLACEMENT OF PRIVATE COMMON WARRANTS

Concurrently with the sale of shares of Common Stock and Pre-Funded Warrants in a registered direct offering, we also issued and sold to the Selling Stockholder the Private Common Warrants to purchase an aggregate of up to 3,344,904 shares of Common Stock. Each Private Common Warrant has an exercise price of $1.68 per share of Common Stock and will become exercisable upon Stockholder Approval. The 1,672,452 Series A Warrants will expire on the twelve-month anniversary of the Stockholder Approval Date. The 1,672,452 Series B Warrants will expire on the five-year anniversary of the Stockholder Approval Date. The Private Common Warrants are exercisable, at the option of each holder, in whole or in part by delivering to us a duly executed exercise notice and, at any time a registration statement registering the issuance of the Common Stock underlying the Private Common Warrants under the Securities Act is effective and available for the issuance of such shares, or an exemption from registration under the Securities Act is available for the issuance of such shares, by payment in full in immediately available funds for the number of Common Stock purchased upon such exercise. If at the time of exercise there is no effective registration statement registering, or the prospectus contained therein is not available for the issuance of the common stock underlying the Private Common Warrants, then the Private Common Warrants may also be exercised, in whole or in part, at such time by means of a cashless exercise, in which case the holder would receive upon such exercise the net number of shares of Common Stock determined according to the formula set forth in the Private Common Warrants.

Subject to limited exceptions, a holder of Private Common Warrants will not have the right to exercise any portion of its Private Common Warrants if the holder, together with its affiliates, would beneficially own in excess of 4.99% (or 9.99% at the election of the holder prior to the date of issuance) of the number of shares of Common Stock outstanding immediately after giving effect to such exercise, provided that the holder may increase or decrease the beneficial ownership limitation up to 9.99%. Any increase in the beneficial ownership limitation shall not be effective until 61 days following notice of such change to us.

Pursuant to the securities purchase agreement, dated as of May 20, 2024, we entered into in connection with the Offering (the “Securities Purchase Agreement”), we agreed to file within 30 calendar days from the date of the Securities Purchase Agreement a registration statement on Form S-1 or Form S-3 providing for the resale by the Selling Stockholder of the shares of Common Stock issuable upon exercise of the Private Common Warrants. We agreed to use commercially reasonable efforts to cause such registration statement to become effective within 60 days (90 days in the event the SEC elects to review such registration statement) following the filing date of such registration statement and to keep such registration statement effective at all times until the Selling Stockholder no longer owns any Private Common Warrants or shares of Common Stock issuable upon exercise thereof. We also agreed to use our reasonable best efforts to hold a meeting of stockholders by August 18, 2024 for the purpose of obtaining Stockholder Approval and, in the event that we do not obtain Stockholder Approval at the first such meeting, to call a meeting every 90 days thereafter to seek Stockholder Approval until the earlier of the date on which Stockholder Approval is obtained or the Private Common Warrants are no longer outstanding.

In the event of any fundamental transaction, as described in the Private Common Warrants, and generally including any merger or consolidation with or into another entity, sale of all or substantially all of our assets, any purchase offer, tender offer or exchange offer, reclassification, reorganization or recapitalization of our shares of common stock, or any person or group becoming the beneficial owner of 50% or more of the outstanding shares of our common stock, then upon any subsequent exercise of a Private Common Warrant, as applicable, the holder will be entitled to receive the kind and amount of securities, cash or other property that the holder would have received had they exercised the Private Common Warrant immediately prior to the occurrence of such fundamental transaction. Additionally, in the event of a fundamental transaction, we or any successor entity will, at the option of the holder of a Private Common Warrant exercisable at any time concurrently with or within 30 days after the consummation of the fundamental transaction (or, if later, the date of the public announcement thereof), purchase the Private Common Warrant from the holder by paying to the holder an amount of consideration equal to the value of the remaining unexercised portion of such Private Common Warrant on the date of consummation of the fundamental transaction based on the Black-Scholes option pricing model,

determined pursuant to a formula set forth in the Private Common Warrants. The consideration paid to the holder will be the same type or form of consideration that was offered and paid to the holders of Common Stock in connection with the fundamental transaction; provided that if no such consideration was offered or paid, the holders of Common Stock will be deemed to have received Common Stock of the successor entity in such fundamental transaction for purposes of this provision of the Private Common Warrants.

WARRANT REPRICING

On May 20, 2024, we entered into the Inducement Letter with the Selling Stockholder pursuant to which the Selling Stockholder agreed to exercise, for cash, certain outstanding Common Stock purchase warrants that we issued to the Selling Stockholder on January 27, 2023 with an exercise price of $4.50 per warrant (as adjusted for the 1-for-6 reverse split of Common Stock the Company effected on June 30, 2023). The Investor exercised, in the aggregate, Existing Warrants to purchase 708,500 shares of Common Stock (the "Existing Warrant Shares") in exchange for the Company's agreement to (i) lower the exercise price of the Existing Warrants to $1.68 per share pursuant to an amendment to the Existing Warrants (the "Warrant Amendment") and (ii) issue the Inducement Warrants to the Selling Stockholder to purchase, in the aggregate, up to 1,417,000 shares of Common Stock (such transactions, collectively, the "Warrant Inducement"). In addition, 1,229,484 Existing Warrants held by the Selling Stockholder which were not exercised in connection with the Warrant Inducement had their exercise price reduced to $1.68 per share (such transactions together with the Warrant Inducement, the "Warrant Repricing").

Each Inducement Warrant has an exercise price of $1.68 per share of Common Stock and will become exercisable upon Stockholder Approval. The 708,500 Series C Warrants will expire on the twelve-month anniversary of the Stockholder Approval Date. The 708,500 Series D Warrants will expire on the five-year anniversary of the Stockholder Approval Date. The Inducement Warrants are exercisable, at the option of each holder, in whole or in part by delivering to us a duly executed exercise notice and, at any time a registration statement registering the issuance of the Common Stock underlying the Inducement Warrants under the Securities Act is effective and available for the issuance of such shares, or an exemption from registration under the Securities Act is available for the issuance of such shares, by payment in full in immediately available funds for the number of Common Stock purchased upon such exercise. If at the time of exercise there is no effective registration statement registering, or the prospectus contained therein is not available for the issuance of the common stock underlying the Inducement Warrants, then the Inducement Warrants may also be exercised, in whole or in part, at such time by means of a cashless exercise, in which case the holder would receive upon such exercise the net number of shares of Common Stock determined according to the formula set forth in the Inducement Warrants.

Subject to limited exceptions, a holder of Inducement Warrants will not have the right to exercise any portion of its Inducement Warrants if the holder, together with its affiliates, would beneficially own in excess of 4.99% (or 9.99% at the election of the holder prior to the date of issuance) of the number of shares of Common Stock outstanding immediately after giving effect to such exercise, provided that the holder may increase or decrease the beneficial ownership limitation up to 9.99%. Any increase in the beneficial ownership limitation shall not be effective until 61 days following notice of such change to us.

Pursuant to the Inducement Letter, we agreed to file within 30 calendar days from the date of the Securities Purchase Agreement a registration statement on Form S-1 or Form S-3 providing for the resale by the Selling Stockholder of the shares of Common Stock issuable upon exercise of the Inducement Warrants. We agreed to use commercially reasonable efforts to cause such registration statement to become effective within 60 days (90 days in the event the SEC elects to review such registration statement) following the filing date of such registration statement and to keep such registration statement effective at all times until the Selling Stockholder no longer owns any Inducement Warrants or shares of Common Stock issuable upon exercise thereof. We also agreed to use our reasonable best efforts to hold a meeting of stockholders by August 18, 2024 for the purpose of obtaining Stockholder Approval and, in the event that we do not obtain Stockholder Approval at the first such meeting, to call a meeting every 90 days thereafter to seek Stockholder Approval until the earlier of the date on which Stockholder Approval is obtained or the Inducement Warrants are no longer outstanding.

In the event of any fundamental transaction, as described in the Inducement Warrants, and generally including any merger or consolidation with or into another entity, sale of all or substantially all of our assets, any purchase offer, tender offer or exchange offer, reclassification, reorganization or recapitalization of our shares of common stock, or any person or group becoming the beneficial owner of 50% or more of the outstanding shares of our

common stock, then upon any subsequent exercise of a Inducement Warrant, as applicable, the holder will be entitled to receive the kind and amount of securities, cash or other property that the holder would have received had they exercised the Inducement Warrant immediately prior to the occurrence of such fundamental transaction. Additionally, in the event of a fundamental transaction, we or any successor entity will, at the option of the holder of a Inducement Warrant exercisable at any time concurrently with or within 30 days after the consummation of the fundamental transaction (or, if later, the date of the public announcement thereof), purchase the Inducement Warrant from the holder by paying to the holder an amount of consideration equal to the value of the remaining unexercised portion of such Inducement Warrant on the date of consummation of the fundamental transaction based on the Black-Scholes option pricing model, determined pursuant to a formula set forth in the Inducement Warrants. The consideration paid to the holder will be the same type or form of consideration that was offered and paid to the holders of Common Stock in connection with the fundamental transaction; provided that if no such consideration was offered or paid, the holders of Common Stock will be deemed to have received Common Stock of the successor entity in such fundamental transaction for purposes of this provision of the Inducement Warrants.

SELLING STOCKHOLDER

The shares of Common Stock being offered by the Selling Stockholder are those issuable to the Selling Stockholder upon exercise of the Private Common Warrants and the Inducement Warrants. For additional information regarding the issuance of the Private Common Warrants, see "Private Placement of Private Common Warrants" above. We are registering the shares of Common Stock underlying the Private Common Warrants and the Inducement Warrants in order to permit the Selling Stockholder to offer the shares for resale from time to time. In addition to the ownership of the shares of Common Stock and the Private Common Warrants and the Inducement Warrants, the Selling Stockholder has had material relationships with us within the past three years, including the purchase of securities in our January 2023 offering and the purchase of shares of common stock in the Offering.

The table below lists the Selling Stockholder and other information regarding the beneficial ownership of the shares of Common Stock by the Selling Stockholder. The second column lists the number of shares of Common Stock beneficially owned by the Selling Stockholder, based on its ownership of the shares of Common Stock, Private Common Warrants, Inducement Warrants and other warrants, as of June 17, 2024, assuming exercise of the warrants held by the Selling Stockholder on that date, without regard to any limitations on exercises. The third column lists the shares of Common Stock underlying the Private Common Warrants and the Inducement Warrants offered by this prospectus by the Selling Stockholder. The fourth and fifth columns assume the sale of all of the shares offered by the Selling Stockholder pursuant to this prospectus.

In accordance with the terms of the Securities Purchase Agreement, this prospectus generally covers the resale of the maximum number of shares of Common Stock issuable upon exercise of the Private Common Warrants and the Inducement Warrants.

Under the terms of the Private Common Warrants and the Inducement Warrants, the Selling Stockholder may not exercise the warrants to the extent such exercise would cause the Selling Stockholder, together with its affiliates and attribution parties, to beneficially own a number of shares of Common Stock which would exceed 4.99% or 9.99%, as applicable, of our then outstanding Common Stock following such exercise, excluding for purposes of such determination shares of Common Stock issuable upon exercise of such Private Common Warrants and Inducement Warrants which have not been exercised. The number of shares in the table below does not reflect this limitation. The Selling Stockholder may sell all, some or none of its shares in this offering. See "Plan of Distribution."

Name of Selling Stockholder	Shares Owned prior to Offering	Shares Offered by this Prospectus	Shares Owned after Offering	Percentage of Shares Beneficially Owned after Offering (1)
Armistice Capital, LLC (2)	8,255,388(3)	4,761,904(4)	3,493,484	29.2%

(1) Percentages are based on 7,216,145 shares of Common Stock outstanding as of June 17, 2024 and assuming the exercise of all securities that are registered by this prospectus.

(2) 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.

(3) Consists of (i) 597,575 shares of Common Stock, (ii) Private Common Warrants to purchase up to 3,344,904 shares of Common Stock, (iii) Inducement Warrants to purchase up to 1,417,000 shares of

Common Stock, (iv) Existing Warrants to purchase up to 1,229,484 shares of Common Stock, and (v) Pre-Funded Warrants to purchase up to 1,666,425 shares of Common Stock.

(4) Represents shares of Common Stock underlying the Private Common Warrants and the Inducement Warrants to purchase up to 4,761,904 shares of Common Stock in the aggregate.

PLAN OF DISTRIBUTION

The Selling Stockholder of and any of its pledgees, assignees and successors-in-interest may, from time to time, sell any or all of their securities covered hereby on the principal trading market or any other stock exchange, market or trading facility on which the securities are traded or in private transactions. These sales may be at fixed or negotiated prices. The Selling Stockholder may use any one or more of the following methods when selling securities:

- ordinary brokerage transactions and transactions in which the broker-dealer solicits purchasers;
- block trades in which the broker-dealer will attempt to sell the securities as agent but may position and resell a portion of the block as principal to facilitate the transaction;
- purchases by a broker-dealer as principal and resale by the broker-dealer for its account;
- an exchange distribution in accordance with the rules of the applicable exchange;
- privately negotiated transactions;
- settlement of short sales;
- in transactions through broker-dealers that agree with the Selling Stockholder to sell a specified number of such securities at a stipulated price per security;
- through the writing or settlement of options or other hedging transactions, whether through an options exchange or otherwise;
- a combination of any such methods of sale; or
- any other method permitted pursuant to applicable law.

The Selling Stockholder may also sell securities under Rule 144 or any other exemption from registration under the Securities Act, if available, rather than under this prospectus.

Broker-dealers engaged by the Selling Stockholder may arrange for other brokers-dealers to participate in sales. Broker-dealers may receive commissions or discounts from the Selling Stockholder (or, if any broker-dealer acts as agent for the purchaser of securities, from the purchaser) in amounts to be negotiated, but, except as set forth in a supplement to this prospectus, in the case of an agency transaction not in excess of a customary brokerage commission in compliance with FINRA Rule 2121; and in the case of a principal transaction a markup or markdown in compliance with FINRA Rule 2121.

If at the time of any offering made under this prospectus a member of FINRA participating in the offering has a "conflict of interest" as defined in FINRA Rule 5121 ("Rule 5121"), that offering will be conducted in accordance with the relevant provisions of Rule 5121.

Our Common Stock is listed the Nasdaq Capital Market under the symbol "IKT."

In connection with the sale of the securities or interests therein, the Selling Stockholder may enter into hedging transactions with broker-dealers or other financial institutions, which may in turn engage in short sales of the securities in the course of hedging the positions they assume. The Selling Stockholder may also sell securities short and deliver these securities to close out its short positions, or loan or pledge the securities to broker-dealers that in turn may sell these securities. The Selling Stockholder may also enter into option or other transactions with broker-dealers or other financial institutions or create one or more derivative securities which require the delivery to such broker-dealer or other financial institution of securities 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).

The Selling Stockholder and any broker-dealers or agents that are involved in selling the securities may be deemed to be "underwriters" within the meaning of the Securities Act in connection with such sales. In such event, any commissions received by such broker-dealers or agents and any profit on the resale of the securities purchased by them may be deemed to be underwriting commissions or discounts under the Securities Act. The Selling Stockholder has informed the Company that it does not have any written or oral agreement or understanding, directly or indirectly, with any person to distribute the securities.

The Company is required to pay certain fees and expenses incurred by the Company incident to the registration of the securities. The Company has agreed to indemnify the Selling Stockholder against certain losses, claims, damages and liabilities, including liabilities under the Securities Act.

We agreed to keep this prospectus effective until the Selling Stockholder no longer owns any Private Common Warrants, Inducement Warrants or shares of Common Stock issuable upon exercise thereof. The securities covered hereby will be sold only through registered or licensed brokers or dealers if required under applicable state securities laws. In addition, in certain states, the securities covered hereby may not be sold unless they have been registered or qualified for sale in the applicable state or an exemption from the registration or qualification requirement is available and is complied with.

Under applicable rules and regulations under the Exchange Act, any person engaged in the distribution of the resale securities may not simultaneously engage in market making activities with respect to the Common Stock for the applicable restricted period, as defined in Regulation M, prior to the commencement of the distribution. In addition, the Selling Stockholder will be subject to applicable provisions of the Exchange Act and the rules and regulations thereunder, including Regulation M, which may limit the timing of purchases and sales of the Common Stock by the Selling Stockholder or any other person. We will make copies of this prospectus available to the Selling Stockholder and have informed them of the need to deliver a copy of this prospectus to each purchaser at or prior to the time of the sale (including by compliance with Rule 172 under the Securities Act).

DESCRIPTION OF CAPITAL STOCK

The following descriptions of the Common Stock, Private Common Warrants and Inducement Warrants summarize the material terms and provisions of the securities that we may issue in connection with this offering. It may not contain all the information that is important to you. For the complete terms of our Common Stock, please refer to our Certificate of Incorporation and our by-laws ("By-Laws"), which are filed as exhibits to the registration statement which includes this prospectus. See "Where You Can Find More Information." The Delaware General Corporation Law ("DGCL") may also affect the terms of these securities. The summary below is qualified in its entirety by reference to our Certificate of Incorporation and By-Laws, each as in effect at the time of any offering of securities under this prospectus.

Our authorized capital stock consists of 110,000,000 shares of capital stock, par value $0.001 per share, of which 100,000,000 shares are designated as Common Stock and 10,000,000 shares are designated as preferred stock. As of June 17, 2024, 7,216,145 shares of Common Stock were issued and outstanding and 0 shares of preferred stock were issued and outstanding. In addition, as of June 17, 2024, there were 1,020,280 shares of Common Stock issuable upon exercise of options outstanding, 7,985,965 shares of Common Stock issuable upon exercise of warrants outstanding (including the shares of Common Stock underlying the Private Common Warrants and the Inducement Warrants), and 3,585,589 shares of Common Stock reserved for future grant or issuance. The authorized and unissued shares of Common Stock and preferred stock are available for issuance without further action by our stockholders.

Common Stock

Each holder of Common Stock is entitled to one vote for each share on all matters submitted to a vote of the stockholders, including the election of directors. Our amended and restated certificate of incorporation and amended and restated bylaws do not provide for cumulative voting rights. Except as otherwise required by law, directors shall be elected by a plurality of the voting power of the shares present in person or represented by proxy at the meeting and entitled to vote in any election of directors. With respect to matters other than the election of directors, at any meeting of the stockholders at which a quorum is present or represented by proxy, the affirmative vote of a majority of the voting power of the shares present in person or represented by proxy at such meeting and entitled to vote on the subject matter shall be the act of the stockholders, except as otherwise required by law. The holders of a majority of the stock issued and outstanding and entitled to vote, present in person or represented by proxy, shall constitute a quorum for the transaction of business at all meetings of the stockholders. Subject to preferences that may be applicable to any then-outstanding preferred stock, holders of Common Stock are entitled to receive dividends, if any, as may be declared from time to time by our board of directors out of legally available funds. In the event of our liquidation, dissolution or winding up, holders of Common Stock will be entitled to share ratably in the net assets legally available for distribution to stockholders after the payment of all of our debts and other liabilities and the satisfaction of any liquidation preference granted to the holders of any then-outstanding shares of preferred stock. Holders of Common Stock have no preemptive, conversion, subscription or other rights, and there are no redemption or sinking fund provisions applicable to Common Stock. The rights, preferences and privileges of the holders of 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. All of our outstanding shares of Common Stock are, and the shares of Common Stock underlying the Private Common Warrants and the Inducement Warrants, upon payment and delivery in accordance with their terms, will be fully paid and non-assessable.

The Common Stock is listed the Nasdaq Capital Market under the symbol "IKT." The transfer agent and registrar for the Common Stock is Equiniti Trust Company, LLC. The transfer agent and registrar's address is 6201 15th Ave, Brooklyn, NY 11219.

Private Common Warrants

Duration and Exercise Price

Each Private Common Warrant has an exercise price of $1.68 per share of Common Stock and will become exercisable upon Stockholder Approval. The 1,672,452 Series A Warrants will expire on the twelve-month anniversary of the Stockholder Approval Date. The 1,672,452 Series B Warrants will expire on the five-year anniversary of the Stockholder Approval Date.

Exercisability

The Private Common Warrants are exercisable, at the option of each holder, in whole or in part by delivering to us a duly executed exercise notice and, at any time a registration statement registering the issuance of the Common Stock underlying the Private Common Warrants under the Securities Act is effective and available for the issuance of such shares, or an exemption from registration under the Securities Act is available for the issuance of such shares, by payment in full in immediately available funds for the number of Common Stock purchased upon such exercise. Subject to limited exceptions, a holder of Private Common Warrants will not have the right to exercise any portion of its Private Common Warrants if the holder, together with its affiliates, would beneficially own in excess of 4.99% (or, at the election of the purchaser prior to issuance of the Private Common Warrants, 9.99%) of the number of shares of our Common Stock outstanding immediately after giving effect to such exercise. A holder may increase or decrease the beneficial ownership limitation up to 9.99%, provided, however, that any increase in the beneficial ownership limitation shall not be effective until 61 days following notice of such change to the Company.

Cashless Exercise

If at the time of exercise there is no effective registration statement registering, or the prospectus contained therein is not available for the issuance of the Common Stock underlying the Private Common Warrants, then the Private Common Warrants may also be exercised, in whole or in part, at such time by means of a cashless exercise, in which case the holder would receive upon such exercise the net number of common shares determined according to the formula set forth in the Private Common Warrant.

Fundamental Transactions

In the event of any fundamental transaction, as described in the Private Common Warrants, and generally including any merger or consolidation with or into another entity, sale of all or substantially all of our assets, any purchase offer, tender offer or exchange offer, reclassification, reorganization or recapitalization of our shares of common stock, or any person or group becoming the beneficial owner of 50% or more of the outstanding shares of our common stock, then upon any subsequent exercise of a Private Common Warrant, as applicable, the holder will be entitled to receive the kind and amount of securities, cash or other property that the holder would have received had they exercised the Private Common Warrant immediately prior to the occurrence of such fundamental transaction. Additionally, in the event of a fundamental transaction, we or any successor entity will, at the option of the holder of a Private Common Warrant exercisable at any time concurrently with or within 30 days after the consummation of the fundamental transaction (or, if later, the date of the public announcement thereof), purchase the Private Common Warrant from the holder by paying to the holder an amount of consideration equal to the value of the remaining unexercised portion of such Private Common Warrant on the date of consummation of the fundamental transaction based on the Black-Scholes option pricing model, determined pursuant to a formula set forth in the Private Common Warrants. The consideration paid to the holder will be the same type or form of consideration that was offered and paid to the holders of Common Stock in connection with the fundamental transaction; provided that if no such consideration was offered or paid, the holders of Common Stock will be deemed to have received Common Stock of the successor entity in such fundamental transaction for purposes of this provision of the Private Common Warrants.

Transferability

In accordance with its terms and subject to applicable laws, a Private Common Warrant may be transferred at the option of the holder upon surrender of the Private Common Warrant to us together with the appropriate instruments of transfer and payment of funds sufficient to pay any transfer taxes (if applicable).

Fractional Shares

No fractional shares of Common Stock will be issued upon the exercise of the Private Common Warrants. Rather, the number of shares of Common Stock to be issued will, at our election, either be rounded up to the nearest whole number or we will pay a cash adjustment in respect of such final fraction in an amount equal to such fraction multiplied by the exercise price.

Trading Market

There is no established trading market for the Private Common Warrants, and we do not expect a market to develop. We do not intend to apply for a listing for the Private Common Warrants on any securities exchange or other nationally recognized trading system. Without an active trading market, the liquidity of the Private Common Warrants will be limited.

Rights as a Shareholder

Except as otherwise provided in the Private Common Warrants or by virtue of the holders' ownership of shares of Common Stock, the holders of Private Common Warrants do not have the rights or privileges of holders of our shares of Common Stock, including any voting rights, until such Private Common Warrant holders exercise their warrants.

Inducement Warrants

Duration and Exercise Price

Each Inducement Warrant has an exercise price of $1.68 per share of Common Stock and will become exercisable upon Stockholder Approval. The 708,500 Series C Warrants will expire on the twelve-month anniversary of the Stockholder Approval Date. The 708,500 Series D Warrants will expire on the five-year anniversary of the Stockholder Approval Date.

Exercisability

The Inducement Warrants are exercisable, at the option of each holder, in whole or in part by delivering to us a duly executed exercise notice and, at any time a registration statement registering the issuance of the Common Stock underlying the Inducement Warrants under the Securities Act is effective and available for the issuance of such shares, or an exemption from registration under the Securities Act is available for the issuance of such shares, by payment in full in immediately available funds for the number of Common Stock purchased upon such exercise. Subject to limited exceptions, a holder of Inducement Warrants will not have the right to exercise any portion of its Inducement Warrants if the holder, together with its affiliates, would beneficially own in excess of 4.99% (or, at the election of the purchaser prior to issuance of the Inducement Warrants, 9.99%) of the number of shares of our Common Stock outstanding immediately after giving effect to such exercise. A holder may increase or decrease the beneficial ownership limitation up to 9.99%, provided, however, that any increase in the beneficial ownership limitation shall not be effective until 61 days following notice of such change to the Company.

Cashless Exercise

If at the time of exercise there is no effective registration statement registering, or the prospectus contained therein is not available for the issuance of the Common Stock underlying the Inducement Warrants, then the

Inducement Warrants may also be exercised, in whole or in part, at such time by means of a cashless exercise, in which case the holder would receive upon such exercise the net number of common shares determined according to the formula set forth in the Inducement Warrant.

Fundamental Transactions

In the event of any fundamental transaction, as described in the Inducement Warrants, and generally including any merger or consolidation with or into another entity, sale of all or substantially all of our assets, any purchase offer, tender offer or exchange offer, reclassification, reorganization or recapitalization of our shares of common stock, or any person or group becoming the beneficial owner of 50% or more of the outstanding shares of our common stock, then upon any subsequent exercise of a Inducement Warrant, as applicable, the holder will be entitled to receive the kind and amount of securities, cash or other property that the holder would have received had they exercised the Inducement Warrant immediately prior to the occurrence of such fundamental transaction. Additionally, in the event of a fundamental transaction, we or any successor entity will, at the option of the holder of a Inducement Warrant exercisable at any time concurrently with or within 30 days after the consummation of the fundamental transaction (or, if later, the date of the public announcement thereof), purchase the Inducement Warrant from the holder by paying to the holder an amount of consideration equal to the value of the remaining unexercised portion of such Inducement Warrant on the date of consummation of the fundamental transaction based on the Black-Scholes option pricing model, determined pursuant to a formula set forth in the Inducement Warrants. The consideration paid to the holder will be the same type or form of consideration that was offered and paid to the holders of Common Stock in connection with the fundamental transaction; provided that if no such consideration was offered or paid, the holders of Common Stock will be deemed to have received Common Stock of the successor entity in such fundamental transaction for purposes of this provision of the Inducement Warrants.

Transferability

In accordance with its terms and subject to applicable laws, a Inducement Warrant may be transferred at the option of the holder upon surrender of the Inducement Warrant to us together with the appropriate instruments of transfer and payment of funds sufficient to pay any transfer taxes (if applicable).

Fractional Shares

No fractional shares of Common Stock will be issued upon the exercise of the Inducement Warrants. Rather, the number of shares of Common Stock to be issued will, at our election, either be rounded up to the nearest whole number or we will pay a cash adjustment in respect of such final fraction in an amount equal to such fraction multiplied by the exercise price.

Trading Market

There is no established trading market for the Inducement Warrants, and we do not expect a market to develop. We do not intend to apply for a listing for the Inducement Warrants on any securities exchange or other nationally recognized trading system. Without an active trading market, the liquidity of the Inducement Warrants will be limited.

Rights as a Shareholder

Except as otherwise provided in the Inducement Warrants or by virtue of the holders' ownership of shares of Common Stock, the holders of Inducement Warrants do not have the rights or privileges of holders of our shares of Common Stock, including any voting rights, until such Inducement Warrant holders exercise their warrants.

Possible Anti-Takeover Effects of Delaware Law and our Certificate of Incorporation and By-Laws

Our Certificate of Incorporation contains provisions that could make it more difficult to acquire control of our company by means of a tender offer, open market purchases, a proxy contest or otherwise. A description of these provisions is set forth below.

Anti-Takeover Effects of Certain Provisions of Delaware Law, Our Amended and Restated Certificate of Incorporation and Our Amended and Restated Bylaws

Certain provisions of Delaware law and certain provisions that are included in our amended and restated certificate of incorporation and amended and restated bylaws summarized below may be deemed to have an anti- takeover effect and may delay, deter, or prevent a tender offer or takeover attempt that a stockholder might consider to be in its best interests, including attempts that might result in a premium being paid over the market price for the shares held by stockholders. Certain provisions of the charter require the affirmative approval of two-thirds vote of the outstanding stock of the Company.

Preferred Stock

Our amended and restated certificate of incorporation contains provisions that permit our board of directors to issue, without any further vote or action by the stockholders, shares of preferred stock in one or more series and, with respect to each such series, to fix the number of shares constituting the series and the designation of the series, the voting rights (if any) of the shares of the series, and the powers, preferences or relative, participation, optional and other special rights, if any, and any qualifications, limitations or restrictions, of the shares of such series. The issuance of preferred stock could adversely affect the voting power of holders of our common stock and the likelihood that such holders will receive dividend payments and payments upon liquidation. In addition, the issuance of preferred stock could have the effect of delaying, deferring or preventing change in our control or other corporate action.

Classified board of directors

Our amended and restated certificate of incorporation provides that our board of directors is divided into three classes, designated Class I, Class II, and Class III. Each class has an equal number of directors, as nearly as possible, consisting of one-third of the total number of directors constituting our entire board of directors. The term of the current Class I director shall terminate on the date of the 2027 annual meeting, the term of the Class II directors shall terminate on the date of the 2025 annual meeting, and the term of the Class III directors shall terminate on the date of the 2026 annual meeting. At each annual meeting of stockholders, successors to the class of directors whose terms expire at that annual meeting are elected for three-year terms.

Removal of Directors

Our amended and restated certificate of incorporation provides that stockholders may only remove a director for cause by a vote of no less than a majority of the shares present in person or by proxy at the meeting and entitled to vote.

Director Vacancies

Our amended and restated certificate of incorporation authorizes only our board of directors to fill vacant directorships.

No Cumulative Voting

Our amended and restated certificate of incorporation provides that stockholders do not have the right to cumulate votes in the election of directors.

Special Meetings of Stockholders

Our amended and restated certificate of incorporation and amended and restated bylaws provide that, except as otherwise required by law, special meetings of the stockholders may be called only by an officer at the request of a majority of our board of directors, by the chairperson or president of our board of directors, or by our Chief Executive Officer.

Advance Notice Procedures for Director Nominations

Our amended and restated bylaws provide that stockholders seeking to nominate candidates for election as directors at an annual or special meeting of stockholders must provide timely notice thereof in writing. To be timely, a stockholder's notice generally will have to be delivered to and received at our principal executive offices before notice of the meeting is issued by the secretary of the company, with such notice being served not less than 90 nor more than 120 days before the meeting. Although the amended and restated bylaws do not give our board of directors the power to approve or disapprove stockholder nominations of candidates to be elected at an annual meeting, the amended and restated bylaws may have the effect of precluding the conduct of certain business at a meeting if the proper procedures are not followed or may discourage or deter a potential acquirer from conducting a solicitation of proxies to elect its own slate of directors or otherwise attempting to obtain control of the company.

Action by Written Consent

Our amended and restated certificate of incorporation and amended and restated bylaws provide that any action to be taken by the stockholders must be effected at a duly called annual or special meeting of stockholders and may not be effected by written consent.

Amending our Certificate of Incorporation and Bylaws

Our amended and restated certificate of incorporation may be amended or altered in any manner provided by the DGCL. Certain provisions of our amended and restated certificate of incorporation may only be amended or altered in any manner by the affirmative vote of 66 2/3% of the then-outstanding shares of our common stock. Our amended and restated bylaws may not be amended by stockholders. Additionally, our amended and restated certificate of incorporation provides that our bylaws may be amended, altered, or repealed by our board of directors.

Authorized but Unissued Shares

Our authorized but unissued shares of common stock and preferred stock are available for future issuances without stockholder approval, except as required by the listing standards of Nasdaq, and could be utilized for a variety of corporate purposes, including future offerings to raise additional capital, acquisitions and employee benefit plans. The existence of authorized but unissued and unreserved shares of our common stock and preferred stock could render more difficult or discourage an attempt to obtain control of the company by means of a proxy contest, tender offer, merger or otherwise.

Exclusive Forum

Our amended and restated certificate of incorporation provides that, unless we consent to the selection of an alternative forum, the Court of Chancery of the State of Delaware shall be the sole and exclusive forum for any derivative action or proceeding brought on our behalf, any action asserting a claim of breach of fiduciary duty, any action asserting a claim arising pursuant to the DGCL, any action regarding our amended and restated certificate of incorporation or our amended and restated bylaws or any action asserting a claim against us that is governed by the internal affairs doctrine. Our amended and restated certificate of incorporation further provides that the federal district courts of the United States of America will be the exclusive forum for resolving any

complaint asserting a cause of action arising under the Securities Act. The choice of the Court of Chancery of the State of Delaware as the sole and exclusive forum for any derivative action or proceeding brought on our behalf does not apply to suits seeking to enforce a duty or liability created by the Securities Act or Exchange Act.

Business Combinations with Interested Stockholders

Subject to certain exceptions, Section 203 of the DGCL prohibits a public Delaware corporation from engaging in a business combination (as defined in such section) with an "interested stockholder" (defined generally as any person who beneficially owns 15% or more of the outstanding voting stock of such corporation or any person affiliated with such person) for a period of three years following the time that such stockholder became an interested stockholder, unless (i) prior to such time the board of directors of such corporation approved either the business combination or the transaction that resulted in the stockholder becoming an interested stockholder; (ii) upon consummation of the transaction that resulted in the stockholder becoming an interested stockholder, the interested stockholder owned at least 85% of the voting stock of such corporation at the time the transaction commenced (excluding for purposes of determining the voting stock of such corporation outstanding (but not the outstanding voting stock owned by the interested stockholder) those shares owned (A) by persons who are directors and also officers of such corporation and (B) by 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 (iii) at or subsequent to such time the business combination is approved by the board of directors of such corporation and authorized at a meeting of stockholders (and not by written consent) by the affirmative vote of at least 66 2/3% of the outstanding voting stock of such corporation not owned by the interested stockholder.

Our amended and restated certificate of incorporation and our amended and restated bylaws provide that we must indemnify our directors and officers to the fullest extent authorized by the DGCL. We are expressly authorized to carry, and we do carry, directors' and officers' insurance providing coverage for our directors, officers and certain employees for some liabilities. We believe that these indemnification provisions and insurance are useful to attract and retain qualified directors and executive directors.

The limitation on liability and indemnification provisions in our amended and restated certificate of incorporation and amended and restated bylaws may discourage stockholders from bringing a lawsuit against directors for breach of their fiduciary duty. These provisions may also have the effect of reducing the likelihood of derivative litigation against directors and officers, even though such an action, if successful, might otherwise benefit us and our stockholders. In addition, your investment may be adversely affected to the extent we pay the costs of settlement and damage awards against directors and officers pursuant to these indemnification provisions.

LEGAL MATTERS

The validity of the issuance of our securities offered in this prospectus will be passed upon for us by McDermott Will & Emery LLP, New York, New York.

EXPERTS

The consolidated financial statements of Inhibikase Therapeutics, Inc. and Subsidiary for the years ended December 31, 2023 and 2022 have been audited by CohnReznick LLP, independent registered public accounting firm, as set forth in their report thereon appearing in Inhibikase Therapeutics, Inc. and Subsidiary's Annual Report on Form 10-K for the year ended December 31, 2023, and incorporated by reference herein. Such consolidated financial statements are incorporated by reference herein in reliance upon such report, which includes an explanatory paragraph on Inhibikase Therapeutics, Inc. and Subsidiary's ability to continue as a going concern, given on the authority of such firm as experts in accounting and auditing.

WHERE YOU CAN FIND ADDITIONAL INFORMATION

We have filed with the SEC a registration statement on Form S-1 under the Securities Act with respect to the securities offered by this prospectus. This prospectus, which constitutes a part of the registration statement, does not contain all of the information set forth in the registration statement, as permitted by the rules and regulations of the SEC. For further information with respect to us and our securities, we refer you to the registration statement, including the exhibits filed as a part of the registration statement. Statements contained in this prospectus concerning the contents of any contract or any other document are not necessarily complete. If a contract or document has been filed as an exhibit to the registration statement, please see the copy of the contract or document that has been filed. Each statement in this prospectus relating to a contract or document filed as an exhibit is qualified in all respects by the filed exhibit. The SEC also maintains an Internet website that contains the registration statement of which this prospectus forms a part, as well as the exhibits thereto. These documents, along with future reports, proxy statements and other information about us, are available at the SEC's website, www.sec.gov.

We are subject to the information and reporting requirements of the Exchange Act, and, in accordance with this law, file periodic reports and other information with the SEC. These periodic reports and other information are available at the SEC's website, www.sec.gov. We also maintain a website at http://www.adnas.com. You may access these materials free of charge as soon as reasonably practicable after they are electronically filed with, or furnished to, the SEC. Information contained on our website is not a part of this prospectus, and the inclusion of our website address in this prospectus is an inactive textual reference only.

MATERIAL CHANGES

None.

INCORPORATION OF CERTAIN INFORMATION BY REFERENCE.

The SEC allows us to "incorporate by reference" into this prospectus the information in documents we file with it, which means that we can disclose important information to you by referring you to those documents. The information incorporated by reference is considered to be a part of this prospectus, and information that we file later with the SEC will automatically update and supersede this information. Any statement contained in any document incorporated or deemed to be incorporated by reference herein shall be deemed to be modified or superseded for purposes of this prospectus to the extent that a statement contained in or omitted from this prospectus or any accompanying prospectus supplement, or in any other subsequently filed document which also is or is deemed to be incorporated by reference herein, modifies or supersedes such statement. Any such statement so modified or superseded shall not be deemed, except as so modified or superseded, to constitute a part of this prospectus.

We incorporate by reference the documents listed below and any future documents that we file with the SEC (excluding any portion of such documents that are furnished and not filed with the SEC) under Sections 13(a), 13(c), 14 or 15(d) of the Exchange Act (1) on and after the date of the initial filing of the registration statement of which this prospectus is a part prior to the effectiveness of the registration statement, (2) prior to the effectiveness of the registration statement of which this prospectus is a part, and (3) after the date of effectiveness of this prospectus until the offering of the underlying securities is terminated; provided, however, we are not incorporating by reference any information furnished (but not filed) under Item 2.02 or Item 7.01 of any Current Report on Form 8-K:

- Our Annual Report on Form 10-K for the fiscal year ended December 31, 2023 filed with the SEC on March 27, 2024;
- Our Quarterly Report on Form 10-Q for the quarterly period ended March 31, 2024 filed with the SEC on May 15, 2024;
- Our Current Reports on Form 8-K filed with the SEC on January 16, 2024 (as amended by the Form 8-K/A filed with the SEC on April 2, 2024), February 1, 2024, February 7, 2024, April 30, 2024 (excluding Item 7.01), May 20, 2024 (excluding Item 7.01) and June 10, 2024;
- Our Definitive Proxy Statement on Schedule 14A filed with the SEC on June 20, 2024; and
- The description of the Common Stock contained in the Company's Registration Statement on Form 8-A filed with the Commission on October 29, 2020 (File No. 001-39676), together with any amendment thereto filed with the SEC for the purpose of updating such description.

Upon written or oral request, we will provide without charge to each person, including any beneficial owner, to whom a copy of the prospectus is delivered a copy of the documents incorporated by reference in this prospectus (other than exhibits to such documents unless such exhibits are specifically incorporated by reference in this prospectus). You may request a copy of these filings, at no cost, by writing or telephoning us at the following address: Inhibikase Therapeutics, Inc., 3350 Riverwood Parkway SE, Suite 1900, Atlanta, GA 30339. You may also access these documents on our website at *www.inhibikase.com*.

Information on our website, including subsections, pages, or other subdivisions of our website, or any website linked to by content on our website, is not part of this prospectus and you should not rely on that information unless that information is also in this prospectus or incorporated by reference in this prospectus.

4,761,904 shares of Common Stock

Inhibikase Therapeutics, Inc.

PROSPECTUS

June 26, 2024