

This preliminary prospectus supplement relates to an effective registration statement under the Securities Act of 1933, but the information in this preliminary prospectus supplement is not complete and may be changed. This preliminary prospectus supplement and the accompanying prospectus are not an offer to sell and are not soliciting an offer to buy these securities in any jurisdiction where the offer or sale is not permitted.

SUBJECT TO COMPLETION, DATED APRIL 25, 2022

Filed Pursuant to Rule 424(b)(5)
Registration No. 333-258766

PRELIMINARY PROSPECTUS SUPPLEMENT

(to Prospectus dated September 2, 2021)

shares

nkarta

Nkarta, Inc.

Common Stock

This is a public offering of _____ shares of our common stock.

Our common stock is listed on The Nasdaq Global Select Market under the symbol “NKTX.” On April 22, 2022, the last reported sale price of our common stock on The Nasdaq Global Select Market was \$7.77 per share.

Investing in our common stock involves a high degree of risk. Please read carefully the section entitled “[Risk Factors](#)” beginning on page S-11 of this prospectus supplement and the “Risk Factors” section contained in the accompanying prospectus and the documents incorporated by reference in this prospectus supplement and the accompanying prospectus before investing in our common stock.

We are an “emerging growth company” under applicable Securities and Exchange Commission rules and, as such, are eligible for reduced public company reporting requirements.

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

	Per Share	Total
Public offering price	\$	\$
Underwriting discount ⁽¹⁾	\$	\$
Proceeds, before expenses, to us	\$	\$

(1)The underwriters will receive compensation in addition to the underwriting discount. See “Underwriting.”

We have also granted the underwriters an option for a period of 30 days after the date of this prospectus supplement to purchase up to an additional _____ shares of our common stock at the public offering price, less the underwriting discount.

Delivery of the shares of common stock is expected to be made on or about _____, 2022.

Cowen

SVB Securities

Evercore ISI

The date of this Prospectus Supplement is _____, 2022

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PROSPECTUS

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ABOUT THIS PROSPECTUS SUPPLEMENT

This prospectus supplement and the accompanying prospectus are part of a registration statement on Form S-3 that we filed with the Securities and Exchange Commission, or the SEC, using a “shelf” registration process. This document is in two parts. The first part is this prospectus supplement, which describes the terms of the common stock offered hereby and also adds to and updates the information contained in the accompanying prospectus and the documents incorporated by reference into this prospectus supplement and the accompanying prospectus. The second part is the accompanying prospectus dated September 2, 2021 (included in our registration statement on Form S-3 (File No. 333-258766)), which provides more general information, some of which may not apply to this offering and some of which may have been supplemented or superseded by information in this prospectus supplement or documents incorporated or deemed to be incorporated by reference into this prospectus supplement that we filed with the SEC subsequent to the date of the prospectus. To the extent that there is any conflict between the information contained in this prospectus supplement, on the one hand, and the information contained in the accompanying prospectus or any document incorporated by reference herein or therein, on the other hand, you should rely on the information in this prospectus supplement.

As permitted by the rules and regulations of the SEC, this prospectus supplement and the accompanying prospectus do not contain all of the information included in the registration statement. For further information, we refer you to the registration statement on Form S-3, including its exhibits, of which this prospectus supplement and the accompanying prospectus form a part. We are subject to the informational requirements of the Securities Exchange Act of 1934, as amended (the “Exchange Act”), and therefore file reports and other information with the SEC. Statements contained in this prospectus supplement and the accompanying prospectus about the provisions or contents of any agreement or other document are only summaries. If SEC rules require that any agreement or document be filed as an exhibit to the registration statement, you should refer to that agreement or document for its complete contents.

Before purchasing our common stock, you should read this prospectus supplement, the accompanying prospectus and any free writing prospectus to which we have referred you and the documents incorporated by reference herein described under “Where You Can Find Additional Information” and “Incorporation of Certain Information by Reference” in this prospectus supplement before deciding whether to invest in the shares of common stock offered by this prospectus supplement. You should assume that the information contained in this prospectus supplement is accurate only as of the date on its cover, and that any information incorporated by reference is accurate only as of the date of the document incorporated by reference, unless we indicate otherwise. Our business, financial condition, results of operations and prospects may have changed since those dates. You should only rely on the information contained in or incorporated by reference in this prospectus supplement and the accompanying prospectus. We and the underwriters have not authorized anyone to provide you with different information. We and the underwriters take no responsibility for, and can provide no assurance as to the reliability of, any other information that others may give you. If anyone provides you with different or inconsistent information, you should not rely on it. We and the underwriters are not making offers to sell the common stock described in this prospectus supplement and the accompanying prospectus in any jurisdiction in which an offer or solicitation is not authorized or in which the person making such offer or solicitation is not qualified to do so or to anyone to whom it is unlawful to make an offer or solicitation.

You should not consider any information in this prospectus supplement, the accompanying prospectus or any free writing prospectus to which we have referred you to be investment, legal or tax advice. You should consult your own counsel, accountants and other advisors for legal, tax, business, financial and related advice regarding the purchase of any of the shares of common stock offered hereby.

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No action is being taken in any jurisdiction outside the United States to permit a public offering of our common stock or possession or distribution of this prospectus in that jurisdiction. Persons who come into possession of this prospectus in jurisdictions outside the United States are required to inform themselves about and to observe any restrictions as to this offering and the distribution of this prospectus applicable to that jurisdiction.

References in this prospectus supplement and the accompanying prospectus to the terms “we,” “us,” “our,” “the Company” or other similar terms refer to Nkarta, Inc. We do not have any subsidiaries.

CAUTIONARY NOTE REGARDING FORWARD LOOKING STATEMENTS

This prospectus supplement, the accompanying prospectus and the documents incorporated by reference herein or therein, may contain or incorporate “forward-looking statements” within the meaning of Section 27A of the Securities Act and Section 21E of the Exchange Act. In some cases, you can identify forward-looking statements by the words “anticipate,” “believe,” “continue,” “could,” “estimate,” “expect,” “intend,” “may,” “might,” “objective,” “ongoing,” “plan,” “predict,” “project,” “potential,” “should,” “will,” or “would,” or the negative of these terms, or other comparable terminology intended to identify statements about the future. These statements involve known and unknown risks, uncertainties and other factors that may cause our actual results, levels of activity, performance or achievements to be materially different from the information expressed or implied by these forward-looking statements. In addition, these statements are based on our management’s beliefs and assumptions and on information currently available to our management as of the date of this prospectus supplement. While we believe such information forms a reasonable basis for such statements, such information may be limited or incomplete, and our statements should not be read to indicate that we have conducted an exhaustive inquiry into, or review of, all potentially available relevant information. Forward-looking statements are inherently subject to risks and uncertainties, some of which cannot be predicted or quantified. The following factors, among others, could cause actual results to differ from those set forth in the forward-looking statement:

- our limited operating history and lack of any products approved for sale;
- our history of significant losses and our expectation of incurring significant losses for the foreseeable future;
- our ability to generate revenue from product sales and achieve or maintain profitability;
- our ability to fund our operations and obtain additional capital, including any resulting dilution to our stockholders or restrictions on our operations;
- risks associated with the COVID-19 pandemic, which may adversely impact our business, preclinical studies and clinical trials and/or adversely impact the business of our research partners and other third parties with whom we conduct business;
- our dependence upon the success of our chimeric antigen receptor-NK, or CAR-NK, cell technology platform and the significant challenges we must overcome to develop, commercialize and manufacture our product candidates;
- our ability to achieve our milestones for development of our product candidates, including the timely conduct of our clinical trials and the availability of clinical data from those trials;
- the future results of ongoing or later clinical trials, including of NKX101 and NKX019;
- any changes that may occur in interim, preliminary or “topline” data from our clinical trials, including of NKX101 and NKX019;
- our ability to obtain and maintain regulatory approval of our product candidates, including NKX101 and NKX019, for any of the indications for which we plan to develop them, and any related restrictions, limitations and/or warnings in the label of an approved product;
- our ability to enroll and retain patients in clinical trials, which is expensive and time-consuming;
- the success, cost, timing and potential indications of our product candidate development activities and clinical trials, including our ongoing and potential future clinical trials of NKX101 and NKX019;
- our ability to seek special designations by regulatory authorities to expedite our regulatory approvals;
- the success of our research collaboration with CRISPR Therapeutics and the co-development and co-commercialization of product candidates under that collaboration;

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- our ability to establish additional pharmaceutical or biotechnology collaborations on commercially reasonable terms, or at all;
- our ability to grow our organization and increase the size of our facilities to meet our anticipated growth;
- product liability lawsuits against us and the potential incurrence of substantial liabilities, which could limit commercialization of any product candidate that we may develop;
- our ability to develop, characterize, and control manufacturing processes for our product candidates, including our reliance on third parties to manufacture certain of our product candidates and certain materials used in the production of our product candidates;
- our reliance on a sole supplier for certain steps of our manufacturing process;
- our ability to complete construction, staffing, and qualification of a commercial manufacturing facility, and maintain our manufacturing facilities once built, to produce our product candidates for clinical or commercial use;
- our ability to maintain our license agreement with National University of Singapore and St. Jude Children's Research Hospital with respect to certain rights to our product candidates, including NKX101 and NKX019;
- our ability to obtain and maintain intellectual property protection for our products and our ability to operate our business without infringing on the intellectual property rights of others;
- the development and commercialization rights to our current and future product candidates, which may be subject to terms and conditions of licenses granted to us by others;
- our ability to develop and maintain sales and marketing capabilities if any of our product candidates are approved for marketing and commercialization;
- any regulatory limitations on our product candidates, including NKX101 and NKX019 following approval, if and when such approval is granted;
- the market opportunities for our product candidates, if and when approved, and any limitations on such opportunities;
- the degree of market acceptance of our product candidates, if and when approved, by physicians, patients, third-party payors and others in the medical community;
- our ability to obtain and maintain adequate coverage and reimbursement for our product candidates;
- regulatory developments in the United States and foreign countries;
- the concentration of ownership of our shares of common stock among our existing executive officers, directors and principal stockholders, which may prevent new investors from influencing significant corporate decisions; and
- other risks and uncertainties discussed in Part I, Item 1A, Risk Factors in our Annual Report on Form 10-K for the year ended December 31, 2021 filed with the SEC, as such risk factors may be amended, supplemented or superseded from time to time by our subsequent periodic reports we file with the SEC, including our Quarterly Reports on Form 10-Q.

Moreover, we operate in an evolving environment. New risk factors and uncertainties may emerge from time to time, and it is not possible for management to predict all risk factors and uncertainties. As a result of these factors, we cannot assure you that the forward-looking statements in this prospectus supplement, accompanying prospectus and the documents incorporated by reference herein or therein, will prove to be accurate. These statements are inherently uncertain and investors are cautioned not to unduly rely upon these statements.

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Except as required by applicable law, we do not plan to publicly update or revise any forward-looking statements contained or incorporated by reference, whether as a result of any new information, future events, changed circumstances or otherwise.

You should read this prospectus supplement, accompanying prospectus and the documents incorporated by reference herein or therein, completely and with the understanding that our actual future results may be materially different from what we expect. We qualify all of our forward-looking statements by these cautionary statements.

PROSPECTUS SUPPLEMENT SUMMARY

This summary highlights selected information contained elsewhere in this prospectus supplement and the accompanying prospectus and in the documents we incorporate by reference. This summary does not contain all of the information you should consider before making an investment decision. You should read this entire prospectus supplement and the accompanying prospectus carefully, especially the risks of investing in our common stock discussed under "Risk Factors" beginning on page S-11 of this prospectus supplement, in the accompanying prospectus and in our Annual Report on Form 10-K for the year ended December 31, 2021, along with our financial statements and notes to those financial statements and the other information incorporated by reference in this prospectus supplement and the accompanying prospectus before making an investment decision.

Our Business

Nkarta, Inc. is a biopharmaceutical company focused on the discovery, development and commercialization of allogeneic, off-the-shelf engineered natural killer, or NK, cell therapies to treat cancer. We currently have two co-lead product candidates, NKX101, a CAR-NK product candidate targeting cells that display NKG2D ligands, and NKX019, a CAR-NK product candidate targeting CD19, in ongoing Phase 1 clinical trials. Both product candidates incorporate proprietary technologies that enable us to generate an abundant supply of NK cells, improve the persistence of these cells for sustained activity in the body, engineer enhanced NK cell recognition of tumor targets, enhance cell fitness and tumor microenvironment evasion, and freeze, store and thaw our engineered NK cells for off-the-shelf use for the treatment of cancer. Our product candidates are designed to be allogeneic and off-the-shelf, which means they are produced using cells from a different person than the patient treated, and they are produced in quantity, then frozen and therefore available for treating patients without delay, unlike autologous cell therapies, which are derived from a patient's own cells. Based on published data from clinical trials of certain NK cell therapies, we believe that engineered NK cells have the potential to be an effective cancer therapy, be well tolerated, and avoid some of the toxicities observed with other cell therapies.

Our modular NK cell engineering platform is designed to address the limitations and challenges of current technologies for engineering T cells and NK cells and is a result of our internal expertise and deep understanding of NK cell biology. Our platform includes proprietary technologies for NK cell expansion, persistence, targeting and cryopreservation. All of our product candidates incorporate each of the four components of our technology platform, which we believe provides the best opportunity for achieving clinically meaningful results in our development program.

NKX101 is currently being studied in a multi-center Phase 1 clinical trial for the treatment of relapsed/refractory acute myeloid leukemia (AML) and higher-risk myelodysplastic syndromes (MDS). This ongoing first-in-human study evaluates the safety, pharmacokinetics, and preliminary anti-tumor activity of NKX101. The clinical trial consists of dose-finding followed by dose-expansion and is designed to identify the recommended Phase 2 dose.

NKX019 is currently being studied in a multi-center Phase 1 clinical trial for the treatment of a variety of B-cell malignancies by targeting the CD19 antigen that is found on these types of cancerous cells and where CD19-targeted engineered NK cells, T cells and monoclonal antibodies have demonstrated clinical activity. This ongoing first-in-human study evaluates the safety, pharmacokinetics, and preliminary anti-tumor activity of NKX019. The clinical trial consists of dose-finding followed by dose-expansion and is designed to identify the recommended Phase 2 dose.

Recent Developments

On April 25, 2022, we announced preliminary data from the ongoing study of NKX101 in relapsed/refractory AML and higher-risk MDS and the ongoing study of NKX019 in relapsed/refractory B-cell malignancies.

The preliminary data from the NKX101 Phase 1 clinical trial demonstrate that NKX101 had anti-AML activity and was well-tolerated across both the 2-dose and 3-dose regimens and across all completed 3-dose regimen dose cohorts. There were no reports of dose limiting toxicity, cytokine release syndrome or graft versus host disease in any of the twenty-one patients treated to date. The most common higher grade toxicities experienced by patients on trial, regardless of relationship to NKX101, were myelosuppression and infection, which are common in this patient population after receiving lymphodepleting chemotherapy. Transient, manageable, low-grade infusion reactions were observed on occasion after receiving NKX101. AML blast reduction was observed at every dose level of the 3-dose regimen and most dose levels of the 2-dose regimen, and blast reduction was seen in patients with higher and with lower baseline blast counts. Out of five patients who received the 3-dose regimen at 1 billion or 1.5 billion cells per dose, three achieved a complete response with full hematologic recovery (60%). Additionally, two of the three patients who achieved a complete response had no measurable residual disease (i.e., MRD negative). In total, eleven patients were treated across all dose levels in the 3-dose regimen with seven of those patients achieving a response for an overall response rate of 64%. In addition to the three patients who achieved a complete response at the highest current evaluated doses, one patient achieved a partial response, and three patients achieved a morphologic leukemia free state at lower doses. In the 2-dose regimen, a total of six patients were treated, and one response of complete response with incomplete hematologic recovery was observed. No responses were observed in any of the four MDS patients treated with NKX101. The Phase 1 trial will continue to enroll relapsed/refractory AML patients with a go-forward regimen of three doses of 1.5 billion cells per dose to determine its safety and the recommended Phase 2 dose.

The preliminary data from the NKX019 Phase 1 clinical trial demonstrate that NKX019 had anti-NHL activity and was well-tolerated across both dose levels evaluated. There were no reports of dose limiting toxicity, cytokine release syndrome or graft versus host disease in any of the thirteen patients treated to date. Generally transient myelosuppression, a toxicity common with lymphodepletion, was the most common higher-grade toxicity reported on trial, regardless of relationship to NKX019. A single patient experienced low-grade infusion reactions of fever which resolved with supportive care. The data demonstrate that five out of six patients with non-Hodgkin lymphoma (NHL) including diffuse large B cell lymphoma (DLBCL) responded to NKX019 for an overall response rate of 83% at the 1 billion dose level. Three of the six responding NHL patients achieved a complete response (50%). Four NHL patients were treated at the lower dose of 300 million cells with an overall response rate of 50% and complete response rate of 25%. Of the three adult patients with acute lymphocytic leukemia who were treated with NKX019, none achieved a response. The Phase 1 clinical trial will continue to enroll relapsed/refractory NHL patients at a dose of 1.5 billion cells per dose as part of a 3-dose regimen to determine its safety and the recommended Phase 2 dose.

Financial Condition

Our financial statements for the quarter ended March 31, 2022 will not be available until after this offering is completed and consequently will not be available to you prior to investing in this offering. Based upon preliminary estimates and information available to us as of the date of this prospectus supplement, we estimate that we had approximately \$219.1 million of cash, cash equivalents, restricted cash and short-term investments as of March 31, 2022. This estimate of cash, cash equivalents, restricted cash and short-term investments is preliminary, has not been reviewed by our independent registered public accounting firm and is subject to change upon completion of our financial statement closing procedures. It is possible that we or our independent registered public accounting firm may identify items that require us to make adjustments to the preliminary estimate of cash, cash equivalents, restricted cash and short-term investments as of March 31, 2022 set forth above, and those adjustments could be material. Accordingly, undue reliance should not be placed on this preliminary estimate. The preliminary estimate of cash, cash equivalents, restricted cash and short-term investments as of March 31, 2022 is not necessarily indicative of any future period and should be read together with the sections titled “Risk Factors” and “Cautionary Note Regarding Forward-Looking Statements,” and

similar sections in the documents incorporated by reference into this prospectus supplement and the accompanying prospectus, as well as our financial statements, related notes and other financial information incorporated by reference in this prospectus supplement.

Implications of Being an Emerging Growth Company

We qualify as an “emerging growth company,” as defined in the Jumpstart Our Business Startups Act of 2012, or the JOBS Act. For as long as we remain an emerging growth company, we may take advantage of certain exemptions from various reporting requirements that are applicable to other public companies. These provisions include, but are not limited to:

- being permitted to have only two years of audited financial statements and only two years of related selected financial data and management’s discussion and analysis of financial condition and results of operations disclosure;
- an exemption from compliance with the auditor attestation requirement in the assessment of our internal control over financial reporting pursuant to the Sarbanes-Oxley Act of 2002, as amended, or the Sarbanes-Oxley Act;
- reduced disclosure about executive compensation arrangements in our periodic reports, registration statements and proxy statements; and
- exemptions from the requirements to seek non-binding advisory votes on executive compensation or golden parachute arrangements.

In addition, the JOBS Act permits emerging growth companies to take advantage of an extended transition period to comply with new or revised accounting standards applicable to public companies. We have elected to “opt out” of this provision and to comply with new or revised accounting standards as required of publicly-traded companies generally. This decision to opt out of the extended transition period is irrevocable.

We will remain an emerging growth company until the earliest of (i) July 2025, (ii) the first fiscal year after our annual gross revenues exceed \$1.07 billion, (iii) the date on which we have, during the immediately preceding three-year period, issued more than \$1.0 billion in non-convertible debt securities or (iv) the end of any fiscal year in which the market value of our common stock held by non-affiliates exceeds \$700 million as of the end of the second quarter of that fiscal year.

Corporate Information

Our principal executive offices are located at 6000 Shoreline Court, Suite 102, South San Francisco, California 94080, our telephone number is (415) 582-4923, and our website is www.nkartatx.com. The information contained on or that can be accessed through our website does not constitute part of this prospectus supplement, except for reports filed with the SEC that are specifically incorporated herein by reference.

THE OFFERING

Issuer	Nkarta, Inc.
Common Stock Offered By Us	shares
Option to Purchase Additional Shares From Us	We have granted the underwriters an option for a period of 30 days after the date of this prospectus supplement to purchase up to an additional shares of our common stock at the public offering price, less the underwriting discount.
Common Stock to be Outstanding After This Offering	shares (or shares if the underwriters exercise in full their option to purchase additional shares of our common stock).
Use of Proceeds	<p>We estimate that the net proceeds to us from this offering will be approximately \$ (or approximately \$ if the underwriters exercise in full their option to purchase additional shares of common stock from us), based on the public offering price of \$ per share and after deducting the underwriting discounts and commissions and estimated offering expenses payable by us.</p> <p>We intend to use the net proceeds to us from this offering to fund the continued clinical development of NKX101 and NKX019, preclinical studies for research stage programs and the continued buildout of internal manufacturing capabilities, and for working capital and for general corporate purposes. Pending the specific use of net proceeds as described in this prospectus supplement, we intend to invest the net proceeds to us from this offering in short term investments, including marketable securities. See “Use of Proceeds.”</p>
Nasdaq Global Select Market Symbol	“NKTX”
Risk Factors	Investing in our common stock involves a high degree of risk. See “Risk Factors” beginning on page S-11 of this prospectus supplement and in the documents incorporated by reference into this prospectus supplement for a discussion of certain factors to consider carefully before deciding to purchase any shares of our common stock.

The calculations above are based on 32,971,107 shares of our common stock outstanding as of December 31, 2021, and exclude the following:

as of December 31, 2021:

- 4,204,686 shares of common stock issuable upon the exercise of outstanding stock options under our 2020 Performance Incentive Plan, or the 2020 Plan, and our 2015 Equity Incentive Plan;
- 2,179,766 shares of our common stock reserved for future issuance of equity award grants under our 2020 Plan; and
- 622,652 shares of common stock reserved for future issuance under our 2020 Employee Stock Purchase Plan; and

as of March 31, 2022:

- the issuance of an additional 865,681 shares of our common stock issuable upon the exercise of outstanding stock options under our 2020 Plan;
- the issuance of an additional 533,198 shares of our common stock reserved for future issuance of equity award grants under our 2020 Plan; and
- the issuance of an additional 329,872 shares of our common stock reserved for future issuance under the 2020 Employee Stock Purchase Plan.

Unless otherwise indicated, all information contained in this prospectus supplement assumes (i) no exercise by the underwriters of their option to purchase additional shares of our common stock and (ii) no exercise of the outstanding stock options.

RISK FACTORS

Investing in our common stock involves a high degree of risk. Before deciding to invest in our common stock, you should carefully consider the risks and uncertainties described below together with all of the other information contained in this prospectus supplement, the accompanying prospectus and in the documents incorporated by reference herein, including the risks described in “Item 1A. Risk Factors” of our Annual Report on Form 10-K for the year ended December 31, 2021. If any of these risks actually occur, our business, prospects, operating results and financial condition could suffer materially. In such event, the trading price of our common stock could decline and you might lose all or part of your investment.

Risks Related to Our Business

Interim, “topline” and preliminary data from our clinical trials may differ materially from the final data.

From time to time, we may publicly disclose preliminary or “topline” data from our clinical trials, which are based on a preliminary analysis of then-available data, and the results and related findings and conclusions are subject to change following a more comprehensive review of the data related to the particular trial. For example, we have reported preliminary Phase 1 clinical data for NKX101 and NKX019. We also make assumptions, estimations, calculations and conclusions as part of our analyses of data, and we may not have received or had the opportunity to fully and carefully evaluate all data. As a result, the topline results that we report may differ from future results of the same clinical trials, or different conclusions or considerations may qualify such topline results once additional data have been received and fully evaluated. Topline data also remain subject to audit and verification procedures that may result in the final data being materially different from the preliminary data we previously published. As a result, topline data should be viewed with caution until the final data are available.

From time to time, we may disclose interim data from our clinical trials. Interim data from clinical trials are subject to the risk that one or more of the clinical outcomes may materially change as patient enrollment continues and more data on existing patients become available. Our clinical trial program is ongoing, and the final results may be materially different from those reflected in any interim data we report.

Further, others, including regulatory agencies, may not accept or agree with our assumptions, estimates, calculations, conclusions or analyses or may interpret or weigh the importance of data differently, which could impact the value of the particular program, the approvability or commercialization of the particular product candidate or product and the value of our company in general. In addition, the information we choose to publicly disclose regarding a particular study or clinical trial is typically a summary of extensive information, and you or others may not agree with what we determine is the material or otherwise appropriate information to include in our disclosure, and any information we determine not to disclose may ultimately be deemed significant with respect to future decisions, conclusions, views, activities or otherwise regarding a particular product, product candidate or our business. If the topline data that we report differ from actual results, or if others, including regulatory authorities, disagree with the conclusions reached, our ability to obtain approval for, and commercialize, our product candidates may be harmed.

There are material limitations with making a preliminary estimate of our financial results for the quarter ended March 31, 2022 prior to the completion of our and our auditors’ financial review procedures for such period.

The preliminary financial estimate contained in “Prospectus Supplement Summary—Financial Condition” is not a comprehensive statement of our financial results for the quarter ended March 31, 2022, and our independent registered public accounting firm has not yet completed their review of such financial results. Our financial statements for the quarter ended March 31, 2022 will not be available until after this offering is completed and, consequently, will not be available to you prior to investing in this offering. Our actual financial results for the quarter ended March 31, 2022 may differ materially from the preliminary financial estimate we have provided as a result of the completion of our financial closing procedures, final adjustments, and other developments arising

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between now and the time that our financial results for such periods are finalized. The preliminary financial data included herein has been prepared by, and is the responsibility of, management. Our independent registered public accounting firm has not audited, reviewed, compiled, or performed any procedures with respect to such preliminary estimate and, accordingly, do not express an opinion or any other form of assurance with respect thereto.

Risks Related to this Offering

If you purchase the common stock sold in this offering, you may experience immediate and substantial dilution in your investment. You may experience further dilution if we issue additional equity securities in the future.

Because the price per share of our common stock being offered may be higher than the current book value per share of our common stock, you may experience immediate and substantial dilution with respect to the net tangible book value of the shares of common stock you purchase in this offering. Based on the public offering price of \$ _____ per share, if you purchase shares of our common stock in this offering, you will experience immediate dilution of \$ _____ per share, the difference between the price per share you pay for our common stock and our as adjusted net tangible book value per share as of December 31, 2021, after giving effect to the issuance of shares of our common stock in this offering. See “Dilution.” We may also choose to raise additional capital due to market conditions or strategic considerations even if we believe we have sufficient funds for our current or future operating plans. To the extent that additional capital is raised through the sale of equity or convertible debt securities, the issuance of these securities could result in further dilution to our stockholders or result in downward pressure on the price of our common stock.

We have broad discretion in how we use the net proceeds of this offering, and we may not use these proceeds effectively or in ways with which you agree.

Our management will have broad discretion as to the application of the net proceeds of this offering and could use them for purposes other than those contemplated at the time of this offering. See “Use of Proceeds.” Our stockholders may not agree with the manner in which our management chooses to allocate and spend the net proceeds. Moreover, our management may use the net proceeds for corporate purposes that may not yield profitable results or increase the market price of our common stock.

A significant portion of our total outstanding shares are eligible to be sold into the market, which could cause the market price of our common stock to drop significantly.

Sales of a substantial number of shares of our common stock in the public market, or the perception in the market that the holders of a large number of stock intend to sell shares of our common stock, could reduce the market price of our common stock. As of April 14, 2022, we had 33,009,594 shares of common stock outstanding.

Holders of an aggregate of 13,200,076 shares of common stock, including with respect to shares of our convertible preferred stock that converted into shares of our common stock upon the completion of the initial public offering, or IPO, have rights, subject to specified conditions, to require us to file registration statements covering their shares or to include their shares in registration statements that we may file for ourselves or other stockholders, until such shares can otherwise be sold without restriction under Rule 144 under the Securities Act, or until the rights terminate pursuant to the terms of the stockholders agreement between us and such holders. We have also registered all shares of common stock subject to equity awards issued or reserved for future issuance under our equity compensation plans on registration statements on Form S-8, and these shares can be freely sold in the public market upon issuance, subject to volume limitations applicable to affiliates under Rule 144 under the Securities Act. Any sales of securities by these stockholders could have a negative impact on the trading price of our common stock.

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We, our executive officers and directors have agreed, subject to specified exceptions, including among others, those discussed below, not to directly or indirectly:

- sell, offer, contract or grant any option to sell (including any short sale), pledge, transfer, establish an open “put equivalent position” within the meaning of Rule 16a-1(h) under the Securities Exchange Act of 1934, as amended (Exchange Act);
- otherwise dispose of any shares of common stock, options or warrants to acquire shares of common stock, or securities exchangeable or exercisable for or convertible into shares of common stock currently or hereafter owned either of record or beneficially; or
- publicly announce an intention to do any of the foregoing for a period of 90 days after the date of this prospectus supplement without the prior written consent of Cowen and Company, LLC and SVB Securities LLC.

This restriction terminates after the close of trading of the common stock on and including the 90th day after the date of this prospectus supplement. Cowen and Company, LLC and SVB Securities LLC may, in their sole discretion and at any time or from time to time before the termination of the 90th-day period release all or any portion of the securities subject to lock-up agreements. These lock-up agreements cover approximately 1,834,111 shares of our common stock outstanding as of the date of this prospectus supplement. Sales of stock by any of our executive officers or directors could have a material adverse effect on the trading price of our common stock.

USE OF PROCEEDS

We estimate that we will receive net proceeds of approximately \$ (or approximately \$ if the underwriters exercise in full their option to purchase additional shares of common stock from us), based on the public offering price of \$ per share and after deducting the underwriting discounts and commissions and estimated offering expenses payable by us.

We intend to use the net proceeds to us from this offering to fund the continued clinical development of NKX101 and NKX019, preclinical studies for research stage programs and the continued buildout of internal manufacturing capabilities, and for working capital and for general corporate purposes.

Pending the specific use of net proceeds as described in this prospectus supplement, we intend to invest the net proceeds to us from this offering in short term investments, including marketable securities.

CAPITALIZATION

The following table shows our cash, cash equivalents, restricted cash and short-term investments and capitalization as of December 31, 2021:

- on an actual basis; and
- on an as adjusted basis to give effect to our issuance and sale of shares of our common stock in this offering at the public offering price of \$ per share, after deducting underwriting discounts and commissions and estimated offering expenses payable by us.

No adjustments have been made to reflect other normal course operations by us or developments with our business after December 31, 2021. As a result, the as adjusted information provided below is not indicative of our actual capitalization as of any date subsequent to December 31, 2021. You should read this table together with our consolidated financial statements and notes thereto and “Management’s Discussion and Analysis of Financial Condition and Results of Operations” included in our Annual Report on Form 10-K for the year ended December 31, 2021 which are incorporated by reference into this prospectus supplement.

	As of December 31, 2021	
	Actual	As Adjusted
	(dollars in thousands)	
Cash and cash equivalents	\$ 60,816	\$
Short-term investments, available-for-sale	177,272	177,272
Restricted cash	2,098	2,098
Stockholders’ equity:		
Preferred stock, \$0.0001 par value; 54,350,179 shares authorized; no shares issued and outstanding	—	—
Common stock, \$0.0001 par value; 100,000,000 shares authorized; 32,971,107 shares issued and outstanding, actual; shares issued and outstanding, as adjusted	3	
Additional paid-in capital	455,210	
Accumulated other comprehensive loss	(150)	(150)
Accumulated deficit	(204,096)	(204,096)
Total stockholders’ equity	\$ 250,967	\$

The table and calculations above are based on 32,971,107 shares of our common stock outstanding as of December 31, 2021, and exclude the following:

as of December 31, 2021:

- 4,204,686 shares of common stock issuable upon the exercise of outstanding stock options under our 2020 Plan and our 2015 Equity Incentive Plan;
- 2,179,766 shares of our common stock reserved for future issuance of equity award grants under our 2020 Plan; and
- 622,652 shares of common stock reserved for future issuance under our 2020 Employee Stock Purchase Plan; and

as of March 31, 2022:

- the issuance of an additional 865,681 shares of our common stock issuable upon the exercise of outstanding stock options under our 2020 Plan;

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- the issuance of an additional 533,198 shares of our common stock reserved for future issuance of equity award grants under our 2020 Plan; and
- the issuance of an additional 329,872 shares of our common stock reserved for future issuance under the 2020 Employee Stock Purchase Plan.

DILUTION

If you invest in our common stock in this offering, your interest will be diluted to the extent of the difference between the price per share you pay in this offering and the net tangible book value per share of our common stock immediately after this offering. Our net tangible book value of our common stock as of December 31, 2021 was approximately \$251.0 million, or approximately \$7.61 per share of common stock based upon 32,971,107 shares outstanding. Net tangible book value per share is equal to our total tangible assets, less our total liabilities, divided by the total number of shares outstanding as of December 31, 2021.

After giving effect to the sale of our common stock in this offering, at the public offering price of \$ _____ per share, after deducting underwriting discounts and commissions and estimated offering expenses payable by us, our as adjusted net tangible book value as of December 31, 2021 would have been \$ _____ million, or \$ _____ per share of common stock. This represents an immediate increase in net tangible book value of \$ _____ per share to our existing stockholders and an immediate dilution in net tangible book value of \$ _____ per share to new investors in this offering. The following table illustrates this calculation on a per share basis.

Public offering price per share	\$
Net tangible book value per share as of December 31, 2021	\$7.61
Increase in net tangible book value per share attributable to this offering	_____
As adjusted net tangible book value per share after giving effect to this offering	_____
Dilution per share to new investors participating in this offering	\$ _____

If the underwriters exercise in full their option to purchase additional shares of our common stock in this offering at the public offering price of \$ _____ per share, our as adjusted net tangible book value will increase to \$ _____ per share, representing an immediate increase in net tangible book value to our existing stockholders of \$ _____ per share and an immediate dilution in net tangible book value of \$ _____ per share to new investors in this offering.

UNDERWRITING

We and the underwriters for the offering named below have entered into an underwriting agreement with respect to the common stock being offered. Subject to the terms and conditions of the underwriting agreement, each underwriter has severally agreed to purchase from us the number of shares of our common stock set forth opposite its name below. Cowen and Company, LLC, SVB Securities LLC and Evercore Group L.L.C. are the representatives of the underwriters.

Underwriter	Number of Shares
Cowen and Company, LLC	
SVB Securities LLC	
Evercore Group L.L.C.	
Total	

The underwriting agreement provides that the obligations of the underwriters are subject to certain conditions precedent and that the underwriters have agreed, severally and not jointly, to purchase all of the shares sold under the underwriting agreement if any of these shares are purchased, other than those shares covered by the overallotment option described below. If an underwriter defaults, the underwriting agreement provides that the purchase commitments of the non-defaulting underwriters may be increased or the underwriting agreement may be terminated.

We have agreed to indemnify the underwriters against specified liabilities, including liabilities under the Securities Act of 1933, as amended, and to contribute to payments the underwriters may be required to make in respect thereof.

The underwriters are offering the shares, subject to prior sale, when, as and if issued to and accepted by them, subject to approval of legal matters by their counsel and other conditions specified in the underwriting agreement. The underwriters reserve the right to withdraw, cancel or modify offers to the public and to reject orders in whole or in part.

Overallotment Option to Purchase Additional Shares. We have granted to the underwriters an option to purchase up to 15% of the offering additional shares of common stock at the public offering price, less the underwriting discount. This option is exercisable for a period of 30 days from the date of this prospectus supplement. The underwriters may exercise this option solely for the purpose of covering overallotments, if any, made in connection with the sale of common stock offered hereby. To the extent that the underwriters exercise this option, the underwriters will purchase additional shares from us in approximately the same proportion as shown in the table above.

Discounts and Commissions. The following table shows the public offering price, underwriting discount and commissions and proceeds, before expenses to us. These amounts are shown assuming both no exercise and full exercise of the underwriters' option to purchase additional shares.

We estimate that the total expenses of the offering, excluding underwriting discounts and commissions, will be approximately \$ _____ million and are payable by us. We have also agreed to reimburse the underwriters for up to \$30,000 for their FINRA counsel fee. In accordance with FINRA Rule 5110, this reimbursed fee is deemed underwriting compensation for this offering.

	Per Share	Total	
		No Exercise of Over-Allotment	Full Exercise of Over Allotment
Public offering price	\$	\$	\$
Underwriting discount	\$	\$	\$
Proceeds, before expenses, to us	\$	\$	\$

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The underwriters propose to offer the shares of common stock to the public at the public offering price set forth on the cover of this prospectus supplement. The underwriters may offer the shares of common stock to securities dealers at the public offering price less a concession not in excess of \$ _____ per share. If all of the shares are not sold at the public offering price, the underwriters may change the offering price and other selling terms.

Discretionary Accounts. The underwriters do not intend to confirm sales of the shares to any accounts over which they have discretionary authority.

Market Information. Our common stock is listed on the Nasdaq Global Select Market under the symbol “NKTX.”

Stabilization. In connection with this offering, the underwriters may engage in stabilizing transactions, over-allotment transactions, syndicate covering transactions, penalty bids and purchases to cover positions created by short sales.

- Stabilizing transactions permit bids to purchase shares of common stock so long as the stabilizing bids do not exceed a specified maximum and are engaged in for the purpose of preventing or retarding a decline in the market price of the common stock while the offering is in progress.
- Over-allotment transactions involve sales by the underwriters of shares of common stock in excess of the number of shares the underwriters are obligated to purchase. This creates a syndicate short position which may be either a covered short position or a naked short position. In a covered short position, the number of shares over-allotted by the underwriters is not greater than the number of shares that they may purchase in the over-allotment option. In a naked short position, the number of shares involved is greater than the number of shares in the over-allotment option. The underwriters may close out any short position by exercising their over-allotment option and/or purchasing shares in the open market.
- Syndicate covering transactions involve purchases of common stock in the open market after the distribution has been completed in order to cover syndicate short positions. In determining the source of shares to close out the short position, the underwriters will consider, among other things, the price of shares available for purchase in the open market as compared with the price at which they may purchase shares through exercise of the over-allotment option. If the underwriters sell more shares than could be covered by exercise of the over-allotment option and, therefore, have a naked short position, the position can be closed out only by buying shares in the open market. A naked short position is more likely to be created if the underwriters are concerned that after pricing there could be downward pressure on the price of the shares in the open market that could adversely affect investors who purchase in the offering.
- Penalty bids permit the representatives to reclaim a selling concession from a syndicate member when the common stock originally sold by that syndicate member is purchased in stabilizing or syndicate covering transactions to cover syndicate short positions.

These stabilizing transactions, syndicate covering transactions and penalty bids may have the effect of raising or maintaining the market price of our common stock or preventing or retarding a decline in the market price of our common stock. As a result, the price of our common stock in the open market may be higher than it would otherwise be in the absence of these transactions. Neither we nor the underwriters make any representation or prediction as to the effect that the transactions described above may have on the price of our common stock. These transactions may be effected on the Nasdaq Stock Market, in the over-the-counter market or otherwise and, if commenced, may be discontinued at any time.

Lock-Up Agreements. Pursuant to certain “lock-up” agreements, we and our executive officers, directors and substantially all our other stockholders have agreed, subject to certain exceptions, not to offer, sell, assign, transfer, pledge, contract to sell, or otherwise dispose of or announce the intention to otherwise dispose of, or

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enter into any swap, hedge or similar agreement or arrangement that transfers, in whole or in part, the economic consequence of ownership of, directly or indirectly, or make any demand or request or exercise any right with respect to the registration of, or file with the SEC a registration statement under the Securities Act relating to, any common stock or securities convertible into or exchangeable or exercisable for any common stock without the prior written consent of Cowen and Company, LLC and SVB Securities LLC for a period of 90 days after the date of the pricing of the offering. The foregoing prohibition does not apply to shares of common stock acquired in this offering or in market transactions after the date of this offering. This lock-up provision applies to common stock and to securities convertible into or exchangeable or exercisable for common stock. The exceptions permit us, among other things and subject to restrictions, to: (a) issue common stock or options pursuant to employee benefit plans, (b) issue common stock upon exercise of outstanding options or warrants, (c) issue securities in connection with acquisitions or similar transactions, or (d) file registration statements on Form S-8. The exceptions permit parties to the “lock-up” agreements, among other things and subject to restrictions, to: (a) make certain gifts, (b) if the party is an individual, make transfers for estate planning purposes, to the party’s immediate family, by will, testamentary document or interstate succession, (c) if the party is a corporation, partnership, limited liability company or other business entity, make transfers to any shareholders, partners, members of, or owners of similar equity interests in, the party, or to an affiliate of the party, if such transfer is not for value, (d) if the party is a corporation, partnership, limited liability company or other business entity, make transfers in connection with the sale or transfer of all of the party’s capital stock, partnership interests, membership interests or other similar equity interests, as the case may be, or all or substantially all of the party’s assets, in any such case not undertaken for the purpose of avoiding the restrictions imposed by the “lock-up” agreement, (e) participate in tenders involving the acquisition of a majority of our stock, (f) enter into certain trading plans, and (g) make transfers to us to satisfy certain tax withholding obligations or pursuant to certain employment agreements. In addition, the lock-up provision will not restrict broker-dealers from engaging in market making and similar activities conducted in the ordinary course of their business.

Cowen and Company, LLC and SVB Securities LLC, in their sole discretion, may release our common stock and other securities subject to the lock-up agreements described above in whole or in part at any time. When determining whether or not to release our common stock and other securities from lock-up agreements, Cowen and Company, LLC and SVB Securities LLC will consider, among other factors, the holder’s reasons for requesting the release, the number of shares for which the release is being requested and market conditions at the time of the request. In the event of such a release or waiver for one of our directors or officers, Cowen and Company, LLC and SVB Securities LLC shall provide us with notice of the impending release or waiver at least three business days before the effective date of such release or waiver and we will announce the impending release or waiver by issuing a press release at least two business days before the effective date of the release or waiver.

Passive Market Making. In connection with this offering, the underwriters may engage in passive market making transactions in the common stock on the Nasdaq Global Select Market in accordance with Rule 103 of Regulation M under the Exchange Act during a period before the commencement of offers or sales of common stock and extending through the completion of distribution. A passive market maker must display its bid at a price not in excess of the highest independent bid of that security. However, if all independent bids are lowered below the passive market maker’s bid, that bid must then be lowered when specified purchase limits are exceeded. Passive market making may cause the price of our common stock to be higher than the price that otherwise would exist in the open market in the absence of those transactions. The underwriters are not required to engage in passive market making and may end passive market making activities at any time.

Electronic Offer, Sale and Distribution of Shares. A prospectus in electronic format may be made available on the websites maintained by one or more of the underwriters or selling group members, if any, participating in this offering and one or more of the underwriters participating in this offering may distribute prospectuses electronically. The representatives may agree to allocate a number of shares to underwriters and selling group members for sale to their online brokerage account holders. Internet distributions will be allocated by the underwriters and selling group members that will make internet distributions on the same basis as other

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allocations. Other than the prospectus in electronic format, the information on these websites is not part of this prospectus supplement or the accompanying prospectus, has not been approved or endorsed by us or any underwriter in its capacity as underwriter, and should not be relied upon by investors.

Other Relationships. Some of the underwriters and their affiliates have engaged in, and may in the future engage in, investment banking and other commercial dealings in the ordinary course of business with us or our affiliates. They have received, or may in the future receive, customary fees and commissions for these transactions. Cowen and Company, LLC is the agent under that certain Sales Agreement, dated as of August 12, 2021, or the Sales Agreement, by and between us and Cowen and Company, LLC. Under the Sales Agreement, we may offer and sell, from time to time, up to an aggregate of \$150.0 million of shares of our common stock through Cowen and Company, LLC through an “at the market offering” as defined in Rule 415(a)(4) promulgated under the Securities Act.

In addition, in the ordinary course of their business activities, the underwriters and their affiliates may make or hold a broad array of investments and actively trade debt and equity securities (or related derivative securities) and financial instruments (including bank loans) for their own account and for the accounts of their customers. Such investments and securities activities may involve securities and/or instruments of ours or our affiliates. The underwriters and their affiliates may also make investment recommendations and/or publish or express independent research views in respect of such securities or financial instruments and may hold, or recommend to clients that they acquire, long and/or short positions in such securities and instruments.

Canada. The common stock may be sold only to purchasers purchasing, or deemed to be purchasing, as principal that are accredited investors, as defined in National Instrument 45-106 Prospectus Exemptions or subsection 73.3(1) of the Securities Act (Ontario), and are permitted clients, as defined in National Instrument 31-103 Registration Requirements, Exemptions and Ongoing Registrant Obligations. Any resale of the common stock must be made in accordance with an exemption from, or in a transaction not subject to, the prospectus requirements of applicable securities laws.

Securities legislation in certain provinces or territories of Canada may provide a purchaser with remedies for rescission or damages if this prospectus supplement (including any amendment thereto) contains a misrepresentation, provided that the remedies for rescission or damages are exercised by the purchaser within the time limit prescribed by the securities legislation of the purchaser’s province or territory. The purchaser should refer to any applicable provisions of the securities legislation of the purchaser’s province or territory for particulars of these rights or consult with a legal advisor.

Pursuant to section 3A.3 of National Instrument 33-105 Underwriting Conflicts (NI 33-105), the underwriters are not required to comply with the disclosure requirements of NI 33-105 regarding underwriter conflicts of interest in connection with this offering.

United Kingdom. In addition, in the United Kingdom, this document is being distributed only to, and is directed only at, and any offer subsequently made may only be directed at persons who are “qualified investors” (as defined in the Prospectus Regulation) (i) who have professional experience in matters relating to investments falling within Article 19(5) of the Financial Services and Markets Act 2000 (Financial Promotion) Order 2005, as amended (the “Order”) and/or (ii) who are high net worth companies (or persons to whom it may otherwise be lawfully communicated) falling within Article 49(2)(a) to (d) of the Order (all such persons together being referred to as “relevant persons”) or otherwise in circumstances which have not resulted and will not result in an offer to the public of the shares in the United Kingdom within the meaning of the Financial Services and Markets Act 2000.

Any person in the United Kingdom that is not a relevant person should not act or rely on the information included in this document or use it as basis for taking any action. In the United Kingdom, any investment or investment activity that this document relates to may be made or taken exclusively by relevant persons.

Switzerland. The securities will not be offered, directly or indirectly, to the public in Switzerland and this prospectus supplement does not constitute a public offering prospectus as that term is understood pursuant to article 652a or 1156 of the Swiss Federal Code of Obligations.

European Economic Area. In relation to each Member State of the European Economic Area (each, a “Member State”), no shares have been offered or will be offered pursuant to the offering to the public in that Member State prior to the publication of a prospectus in relation to the shares which has been approved by the competent authority in that Member State or, where appropriate, approved in another Member State and notified to the competent authority in that Member State, all in accordance with the Prospectus Regulation, except that offers of shares may be made to the public in that Member State at any time under the following exemptions under the Prospectus Regulation:

1. to any legal entity which is a qualified investor as defined under the Prospectus Regulation;
2. to fewer than 150 natural or legal persons (other than qualified investors as defined under the Prospectus Regulation), subject to obtaining the prior consent of the underwriters; or
3. in any other circumstances falling within Article 1(4) of the Prospectus Regulation,

provided that no such offer of shares shall require the Company or any underwriter to publish a prospectus pursuant to Article 3 of the Prospectus Regulation or supplement a prospectus pursuant to Article 23 of the Prospectus Regulation and each person who initially acquires any shares or to whom any offer is made will be deemed to have represented, acknowledged and agreed to and with each of the underwriters and the Company that it is a “qualified investor” within the meaning of Article 2(e) of the Prospectus Regulation.

In the case of any shares being offered to a financial intermediary as that term is used in Prospectus Regulation, each such financial intermediary will be deemed to have represented, acknowledged and agreed that the shares acquired by it in the offer have not been acquired on a non-discretionary basis on behalf of, nor have they been acquired with a view to their offer or resale to, persons in circumstances which may give rise to an offer of any shares to the public other than their offer or resale in a Member State to qualified investors as so defined or in circumstances in which the prior consent of the underwriters have been obtained to each such proposed offer or resale.

For the purposes of this provision, the expression an “offer to the public” in relation to shares in any Member State means the communication in any form and by any means of sufficient information on the terms of the offer and any shares to be offered so as to enable an investor to decide to purchase or subscribe for any shares, and the expression “Prospectus Regulation” means Regulation (EU) 2017/1129.

Israel. In the State of Israel this prospectus supplement shall not be regarded as an offer to the public to purchase shares of common stock under the Israeli Securities Law, 5728—1968, which requires a prospectus to be published and authorized by the Israel Securities Authority, if it complies with certain provisions of Section 15 of the Israeli Securities Law, 5728—1968, including, inter alia, if: (i) the offer is made, distributed or directed to not more than 35 investors, subject to certain conditions (the “Addressed Investors”); or (ii) the offer is made, distributed or directed to certain qualified investors defined in the First Addendum of the Israeli Securities Law, 5728—1968, subject to certain conditions (the “Qualified Investors”). The Qualified Investors shall not be taken into account in the count of the Addressed Investors and may be offered to purchase securities in addition to the 35 Addressed Investors. The company has not and will not take any action that would require it to publish a prospectus in accordance with and subject to the Israeli Securities Law, 5728—1968. We have not and will not distribute this prospectus supplement or make, distribute or direct an offer to subscribe for our common stock to any person within the State of Israel, other than to Qualified Investors and up to 35 Addressed Investors.

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Qualified Investors may have to submit written evidence that they meet the definitions set out in of the First Addendum to the Israeli Securities Law, 5728—1968. In particular, we may request, as a condition to be offered common stock, that Qualified Investors will each represent, warrant and certify to us and/or to anyone acting on our behalf: (i) that it is an investor falling within one of the categories listed in the First Addendum to the Israeli Securities Law, 5728—1968; (ii) which of the categories listed in the First Addendum to the Israeli Securities Law, 5728—1968 regarding Qualified Investors is applicable to it; (iii) that it will abide by all provisions set forth in the Israeli Securities Law, 5728—1968 and the regulations promulgated thereunder in connection with the offer to be issued common stock; (iv) that the shares of common stock that it will be issued are, subject to exemptions available under the Israeli Securities Law, 5728—1968: (a) for its own account; (b) for investment purposes only; and (c) not issued with a view to resale within the State of Israel, other than in accordance with the provisions of the Israeli Securities Law, 5728—1968; and (v) that it is willing to provide further evidence of its Qualified Investor status. Addressed Investors may have to submit written evidence in respect of their identity and may have to sign and submit a declaration containing, inter alia, the Addressed Investor’s name, address and passport number or Israeli identification number.

Hong Kong. The shares have not been offered or sold and will not be offered or sold in Hong Kong, by means of any document, other than (a) to “professional investors” as defined in the Securities and Futures Ordinance (Cap. 571 of the Laws of Hong Kong), or the SFO, of Hong Kong and any rules made thereunder; or (b) in other circumstances which do not result in the document being a “prospectus” as defined in the Companies (Winding Up and Miscellaneous Provisions) Ordinance (Cap. 32) of Hong Kong), or the CO, or which do not constitute an offer to the public within the meaning of the CO. No advertisement, invitation or document relating to the shares has been or may be issued or has been or may be in the possession of any person for the purposes of issue, whether in Hong Kong or elsewhere, which is directed at, or the contents of which are likely to be accessed or read by, the public of Hong Kong (except if permitted to do so under the securities laws of Hong Kong) other than with respect to shares which are or are intended to be disposed of only to persons outside Hong Kong or only to “professional investors” as defined in the SFO and any rules made thereunder.

Singapore. Each underwriter has acknowledged that this prospectus supplement has not been registered as a prospectus with the Monetary Authority of Singapore. Accordingly, each underwriter has represented and agreed that it has not offered or sold any shares or caused the shares to be made the subject of an invitation for subscription or purchase and will not offer or sell any shares or cause the shares to be made the subject of an invitation for subscription or purchase, and has not circulated or distributed, nor will it circulate or distribute, this prospectus supplement or any other document or material in connection with the offer or sale, or invitation for subscription or purchase, of the shares, whether directly or indirectly, to any person in Singapore other than:

1. to an institutional investor (as defined in Section 4A of the Securities and Futures Act (Chapter 289) of Singapore, as modified or amended from time to time, or the SFA) pursuant to Section 274 of the SFA;
2. to a relevant person (as defined in Section 275(2) of the SFA) pursuant to Section 275(1) of the SFA, or any person pursuant to Section 275(1A) of the SFA, and in accordance with the conditions specified in Section 275 of the SFA; or
3. otherwise pursuant to, and in accordance with the conditions of, any other applicable provision of the SFA.

We have not authorized and do not authorize the making of any offer of securities through any financial intermediary on our behalf, other than offers made by the underwriters and their respective affiliates, with a view to the final placement of the securities as contemplated in this document. Accordingly, no purchaser of the shares, other than the underwriters, is authorized to make any further offer of shares on our behalf or on behalf of the underwriters.

LEGAL MATTERS

The validity of the shares of common stock being offered hereby will be passed upon for us by O'Melveny & Myers LLP. Certain matters will be passed upon for the underwriters by Shearman & Sterling LLP.

EXPERTS

Ernst & Young LLP, independent registered public accounting firm, has audited our financial statements included in our Annual Report on Form 10-K for the year ended December 31, 2021, as set forth in their report, which is incorporated by reference in this prospectus supplement and the accompanying prospectus. Our financial statements are incorporated by reference in reliance on Ernst & Young LLP's report, given on their authority as experts in accounting and auditing.

WHERE YOU CAN FIND ADDITIONAL INFORMATION

We have filed with the SEC a registration statement on Form S-3, including exhibits and schedules, under the Securities Act, with respect to the shares of common stock offered hereby. This prospectus supplement and the accompanying prospectus, which constitute a part of the registration statement, do not contain all of the information set forth in the registration statement and its exhibits. For further information with respect to us and the common stock offered hereby, we refer you to the registration statement and the exhibits and schedules filed thereto. Statements contained in this prospectus supplement and the accompanying prospectus regarding the contents of any contract or any other document that is filed as an exhibit to the registration statement are not necessarily complete, and each such statement is qualified in all respects by reference to the full text of such contract or other document filed as an exhibit to the registration statement. You should review the complete document to evaluate these statements. You may obtain copies of the registration statement and its exhibits via the SEC's EDGAR database.

We file annual, quarterly and current reports, proxy statements and other information with the SEC. Our SEC filings are available to the public at the SEC's website at www.sec.gov. We also maintain a website located at www.nkartatx.com, where these SEC filings and other information about the Company can be accessed, free of charge, as soon as reasonably practicable after we electronically file the information with, or furnish it to, the SEC. The information contained on or that can be accessed through our website does not constitute part of this prospectus supplement or the accompanying prospectus, except for reports filed with the SEC that are specifically incorporated herein by reference.

INCORPORATION OF CERTAIN INFORMATION BY REFERENCE

The SEC allows us to “incorporate by reference” information into this prospectus supplement, which means that we can disclose important information to you by referring you to another document filed separately with the SEC. The information incorporated by reference is considered to be part of this prospectus supplement. Any statement contained in a document incorporated or deemed to be incorporated by reference in this prospectus supplement or the accompanying prospectus will be deemed to be modified or superseded for purposes of this prospectus supplement and the accompanying prospectus to the extent a statement contained in this prospectus supplement, the accompanying prospectus or in any other subsequently filed document that is or is deemed to be incorporated by reference in this prospectus supplement modifies or supersedes that 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 supplement. We incorporate by reference in this prospectus supplement the following documents and reports we filed with the SEC (other than, in each case, the portions that are deemed to have been furnished and not filed in accordance with SEC rules):

- our Annual Report on [Form 10-K](#) for the fiscal year ended December 31, 2021, filed with the SEC on March 17, 2022;
- the portions of our definitive proxy statement on [Schedule 14A](#) that are incorporated by reference into Part III of our Annual Report on Form 10-K for the year ended December 31, 2021, as filed with the SEC on April 21, 2022;
- our Current Reports on [Form 8-K](#) filed with the SEC on March 29, 2022 (with respect to Item 5.02 only) and April 25, 2022 (with respect to Item 8.01 only); and
- the description of our common stock, par value \$0.0001 per share, contained in [Exhibit 4.3](#) to our Annual Report on Form 10-K for the year ended December 31, 2021 (filed with the SEC on March 17, 2022), which updated the description thereof contained in our Registration Statement on [Form 8-A](#), filed with the SEC on July 2, 2020 (File No. 001-39370), and any amendments or reports filed for the purpose of updating such description.

We also incorporate by reference the information contained in all other documents that we file with the SEC pursuant to Sections 13(a), 13(c), 14 or 15(d) of the Securities Exchange Act of 1934, as amended, or the Exchange Act, (other than the portions that are deemed to have been furnished and not filed in accordance with SEC rules, unless otherwise indicated therein) prior to the completion of the offering of all securities under this prospectus supplement. These documents include periodic reports, such as Annual Reports on Form 10-K, Quarterly Reports on Form 10-Q and Current Reports on Form 8-K, as well as proxy statements. We will not, however, incorporate by reference in this prospectus supplement any documents or portions thereof that are not deemed “filed” with the SEC, including any information furnished pursuant to Item 2.02 or Item 7.01 of our Current Reports on Form 8-K after the date of this prospectus supplement unless, and except to the extent, specified in such Current Reports.

We will provide to each person, including any beneficial owner, to whom this prospectus supplement is delivered, a copy of any or all of the documents incorporated by reference in this prospectus supplement, including exhibits to these documents, at no cost. Any such request can be made by writing or telephoning us at the following address and telephone number:

Nkarta, Inc.
Attn: Chief Legal Officer
6000 Shoreline Court, Suite 102
South San Francisco, California 94080
Telephone: (415) 582-4923

PROSPECTUS



Nkarta, Inc.

\$500,000,000
Common Stock
Preferred Stock
Debt Securities
Warrants
Rights
Units

From time to time, we may offer to sell the securities described in this prospectus separately or together in any combination, in one or more classes or series, in amounts, at prices and on terms to be determined at the time of any such offering. The aggregate offering price of the securities we sell pursuant to this prospectus will not exceed \$500,000,000.

This prospectus provides a general description of the securities that we may offer. Each time any securities are offered pursuant to this prospectus, we will provide specific information about the offered securities in one or more supplements to this prospectus.

Prospectus supplements may also add, update or change information in this prospectus. If the information varies between this prospectus and any accompanying prospectus supplement, you should rely on the information in the prospectus supplement.

Our common stock is listed on The Nasdaq Global Select Market under the symbol "NKTX." Any prospectus supplement will indicate if the securities offered thereby will be listed on any securities exchange.

You should carefully read this prospectus and any applicable prospectus supplement, together with the documents we incorporate by reference, before you invest in our securities. This prospectus may not be used to offer and sell our securities unless accompanied by a prospectus supplement describing the method and terms of the offering.

Investing in any of our securities involves a high degree of risk. Please read carefully the section entitled "[Risk Factors](#)" on page 7 of this prospectus and the "Risk Factors" section contained in any applicable prospectus supplement and in the documents incorporated by reference in this prospectus before investing in our securities.

We are an "emerging growth company" under applicable Securities and Exchange Commission rules and, as such, are eligible for reduced public company reporting requirements.

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

The date of this prospectus is September 2, 2021

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ABOUT THIS PROSPECTUS

This prospectus is part of a registration statement on Form S-3 that we filed with the Securities and Exchange Commission (the “SEC”) using a “shelf” registration process. Under this shelf registration process, we may, from time to time, sell any combination of the securities described in this prospectus in one or more offerings.

This prospectus provides you with a general description of the securities that may be offered pursuant to the registration statement of which this prospectus forms a part. Each time we sell securities pursuant to the registration statement of which this prospectus forms a part, a prospectus supplement will be provided that contains specific information about the terms of that offering and the securities being sold in that offering. The prospectus supplement may also add to, update or change the information contained in or incorporated by reference in this prospectus. If information varies between this prospectus and any prospectus supplement, you should rely on the information in the prospectus supplement.

You should only rely on the information contained in or incorporated by reference in this prospectus, any prospectus supplement and any free writing prospectus prepared by or on behalf of us or to which we have referred you. We have not authorized anyone to provide you with different information. We take no responsibility for, and can provide no assurance as to the reliability of, any other information that others may give you. If anyone provides you with different or inconsistent information, you should not rely on it. We are not making offers to sell the securities described in this prospectus in any jurisdiction in which an offer or solicitation is not authorized or in which the person making such offer or solicitation is not qualified to do so or to anyone to whom it is unlawful to make an offer or solicitation.

Before purchasing any securities, you should carefully read both this prospectus and any prospectus supplement, together with the additional information described under the heading “Where You Can Find More Information” and “Information We Incorporate by Reference.” You should assume that the information contained in this prospectus, any prospectus supplement or any free writing prospectus is accurate only as of the date on its respective cover, and that any information incorporated by reference is accurate only as of the date of the document incorporated by reference, unless we indicate otherwise. Our business, financial condition, results of operations and prospects may have changed since those dates.

No action is being taken in any jurisdiction outside the United States to permit a public offering of our securities or possession or distribution of this prospectus in that jurisdiction. Persons who come into possession of this prospectus in jurisdictions outside the United States are required to inform themselves about and to observe any restrictions as to this offering and the distribution of this prospectus applicable to that jurisdiction.

References in this prospectus to the terms “we,” “us,” “our,” “the Company” or other similar terms refer to Nkarta, Inc. We do not have any subsidiaries.

WHERE YOU CAN FIND MORE INFORMATION

This prospectus is part of a registration statement on Form S-3 that we filed with the SEC. This prospectus does not contain all of the information included in the registration statement

We file annual, quarterly and current reports, proxy statements and other information with the SEC. Our SEC filings are available to the public at the SEC's website at www.sec.gov. We also maintain a website located at www.nkartatx.com, where these SEC filings and other information about the Company can be accessed, free of charge, as soon as reasonably practicable after we electronically file the information with, or furnish it to, the SEC. The information contained on or that can be accessed through our website does not constitute part of this prospectus, except for reports filed with the SEC that are specifically incorporated herein by reference.

Forms of any indenture or other documents establishing the terms of the offered securities are filed as exhibits to the registration statement of which this prospectus forms a part or will be filed through an amendment to our registration statement on Form S-3 or under cover of a Current Report on Form 8-K or other document filed with the SEC and incorporated into this prospectus by reference. Statements in this prospectus about these documents are summaries and each statement is qualified in all respects by reference to the document to which it refers. You should refer to the actual documents for a more complete description of the relevant matters. The full registration statement, including exhibits thereto, may be obtained from the SEC or us as indicated above.

INFORMATION WE INCORPORATE BY REFERENCE

The SEC allows us to “incorporate by reference” information into this prospectus, which means that we can disclose important information to you by referring you to another document filed separately with the SEC. The information incorporated by reference is considered to be part of this prospectus. Any statement contained in a document incorporated or deemed to be incorporated by reference in this prospectus will be deemed to be modified or superseded for purposes of this prospectus to the extent a statement contained in this prospectus or in any other subsequently filed document that is or is deemed to be incorporated by reference in this prospectus modifies or supersedes that statement. We incorporate by reference in this prospectus the following documents and reports we filed with the SEC (other than, in each case, the portions that are deemed to have been furnished and not filed in accordance with SEC rules):

- our Annual Report on [Form 10-K](#) for the fiscal year ended December 31, 2020, filed with the SEC on March 25, 2021;
- the portions of our definitive proxy statement on [Schedule 14A](#) that are incorporated by reference into Part III of our Annual Report on Form 10-K for the year ended December 31, 2020, as filed with the SEC on April 22, 2021;
- our Quarterly Reports on Form 10-Q for the quarterly periods ended March 31, 2021 and June 30, 2021, filed with the SEC on [May 13, 2021](#) and [August 12, 2021](#), respectively;
- our Current Reports on Form 8-K filed with the SEC on [January 13, 2021](#), [January 19, 2021](#), [May 6, 2021](#) (with respect to Item 1.01 only), [June 15, 2021](#) and [July 14, 2021](#) (with respect to Items 1.01 and 2.03 and the corresponding portions of Item 9.01 only); and
- the description of our common stock, par value \$0.0001 per share, contained in [Exhibit 4.3](#) to our Annual Report on Form 10-K for the year ended December 31, 2020 (filed with the SEC on March 25, 2021), which updated the description thereof contained in our Registration Statement on Form 8-A, filed with the SEC on July 2, 2020 (File No. 001-39370), and any amendments or reports filed for the purpose of updating such description.

We also incorporate by reference the information contained in all other documents that we file with the SEC pursuant to Sections 13(a), 13(c), 14 or 15(d) of the Securities Exchange Act of 1934, as amended (the “Exchange Act”) (other than the portions that are deemed to have been furnished and not filed in accordance with SEC rules, unless otherwise indicated therein), on or after the date of the registration statement of which this prospectus forms a part and prior to its effectiveness and prior to the completion of the offering of all securities under this prospectus and any prospectus supplement. The information contained in any such document will be considered part of this prospectus from the date the document is filed with the SEC. Any statement contained in a document incorporated or deemed to be incorporated by reference herein shall be deemed to be modified or superseded for purposes of this prospectus and any accompanying prospectus supplement to the extent that a statement contained herein or therein or in any other subsequently filed document which also is or is deemed to be incorporated by reference herein or therein 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 or any accompanying prospectus supplement. We will provide to each person, including any beneficial owner, to whom a prospectus (or a notice of registration in lieu thereof) is delivered, a copy of any or all of the documents incorporated by reference in this prospectus or any accompanying prospectus supplement (other than an exhibit to these filings, unless the exhibit is specifically incorporated by reference in the document requested) at no cost. Any such request can be made by writing or telephoning us at the following address and telephone number:

Nkarta, Inc.
Attn: Chief Legal Officer
6000 Shoreline Court, Suite 102
South San Francisco, California 94080
Telephone: (415) 582-4923

CAUTIONARY NOTE REGARDING FORWARD-LOOKING STATEMENTS

This prospectus, including the documents incorporated by reference herein, contains “forward-looking statements” within the meaning of Section 27A of the Securities Act of 1933, as amended (the “Securities Act”), and Section 21E of the Exchange Act. In some cases, you can identify forward-looking statements by the words “anticipate,” “believe,” “continue,” “could,” “estimate,” “expect,” “intend,” “may,” “might,” “objective,” “ongoing,” “plan,” “predict,” “project,” “potential,” “should,” “will,” or “would,” or the negative of these terms, or other comparable terminology intended to identify statements about the future. These statements involve known and unknown risks, uncertainties and other factors that may cause our actual results, levels of activity, performance or achievements to be materially different from the information expressed or implied by these forward-looking statements. In addition, these statements are based on our management’s beliefs and assumptions and on information currently available to our management as of the date of this prospectus. While we believe such information forms a reasonable basis for such statements, such information may be limited or incomplete, and our statements should not be read to indicate that we have conducted an exhaustive inquiry into, or review of, all potentially available relevant information. Forward-looking statements are inherently subject to risks and uncertainties, some of which cannot be predicted or quantified. The following factors, among others, could cause actual results to differ from those set forth in the forward-looking statement:

- our limited operating history and lack of any products approved for sale;
- our history of significant losses and our expectation of incurring significant losses for the foreseeable future;
- our ability to generate revenue from product sales and achieve or maintain profitability;
- our ability to fund our operations and obtain additional capital, including any resulting dilution to our stockholders or restrictions on our operations;
- risks associated with the COVID-19 pandemic, which may adversely impact our business, preclinical studies and clinical trials and/or adversely impact the business of our research partners and other third parties with whom we conduct business;
- our dependence upon the success of our chimeric antigen receptor-NK (“CAR-NK”) cell technology platform and the significant challenges we must overcome to develop, commercialize and manufacture our product candidates;
- our ability to achieve our milestones for development of our product candidates, including the timely conduct of our clinical trials and the availability of clinical data from those trials;
- the future results of ongoing or later clinical trials, including of NKX101 and NKX019;
- our ability to obtain and maintain regulatory approval of our product candidates, including NKX101 and NKX019, for any of the indications for which we plan to develop them, and any related restrictions, limitations and/or warnings in the label of an approved product;
- our ability to enroll and retain patients in clinical trials, which is expensive and time-consuming;
- the success, cost, timing and potential indications of our product candidate development activities and clinical trials, including our currently planned and potential future clinical trials of NKX101 and NKX019;
- our ability to seek special designations by regulatory authorities to expedite our regulatory approvals;
- our ability to establish pharmaceutical or biotechnology collaborations on commercially reasonable terms, or at all;
- our ability to grow our organization and increase the size of our facilities to meet our anticipated growth;

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- product liability lawsuits against us and the potential incurrence of substantial liabilities, which could limit commercialization of any product candidate that we may develop;
- our ability to develop, characterize, and control manufacturing processes for our product candidates, including our reliance on third parties to manufacture certain of our product candidates and certain materials used in the production of our product candidates;
- our reliance on a sole supplier for certain steps of our manufacturing process;
- our ability to complete construction, staffing, and qualification of a commercial manufacturing facility, and maintain our manufacturing facilities once built, to produce our product candidates for clinical or commercial use;
- our ability to maintain our license agreement with National University of Singapore and St. Jude Children's Research Hospital with respect to certain rights to our product candidates, including NKX101 and NKX019;
- our ability to obtain and maintain intellectual property protection for our products and our ability to operate our business without infringing on the intellectual property rights of others;
- the development and commercialization rights to our current and future product candidates, which may be subject to terms and conditions of licenses granted to us by others;
- our ability to develop and maintain sales and marketing capabilities if any of our product candidates are approved for marketing and commercialization;
- any regulatory limitations on our product candidates, including NKX101 and NKX019 following approval, if and when such approval is granted;
- the market opportunities for our product candidates, if and when approved, and any limitations on such opportunities;
- the degree of market acceptance of our product candidates, if and when approved, by physicians, patients, third-party payors and others in the medical community;
- our ability to obtain and maintain adequate coverage and reimbursement for our product candidates;
- regulatory developments in the United States and foreign countries;
- the concentration of ownership of our shares of common stock among our existing executive officers, directors and principal stockholders, which may prevent new investors from influencing significant corporate decisions;
- other risks and uncertainties discussed in Part I, Item 1A, Risk Factors in our most recent Annual Report on Form 10-K filed with the SEC, as such risk factors may be amended, supplemented or superseded from time to time by our subsequent periodic reports we file with the SEC, including our Quarterly Reports on Form 10-Q, and in any prospectus supplement.

Moreover, we operate in an evolving environment. New risk factors and uncertainties may emerge from time to time, and it is not possible for management to predict all risk factors and uncertainties. As a result of these factors, we cannot assure you that the forward-looking statements in this prospectus, including the documents incorporated by reference herein, will prove to be accurate. These statements are inherently uncertain and investors are cautioned not to unduly rely upon these statements.

Except as required by applicable law, we do not plan to publicly update or revise any forward-looking statements contained or incorporated by reference herein, whether as a result of any new information, future events, changed circumstances or otherwise.

You should read this prospectus, including the documents incorporated by reference herein, completely and with the understanding that our actual future results may be materially different from what we expect. We qualify all of our forward-looking statements by these cautionary statements.

ABOUT NKARTA, INC.

Nkarta, Inc. is a biopharmaceutical company focused on the discovery, development and commercialization of allogeneic, off-the-shelf engineered natural killer (“NK”) cell therapies to treat cancer. Our NK cell engineering platform builds on prior experience and success with engineering T cells and includes proprietary technologies that enable us to generate an abundant supply of NK cells, improve the persistence of these cells for sustained activity in the body, engineer enhanced NK cell recognition of tumor targets, and to freeze, store and thaw our engineered NK cells for off-the-shelf use for the treatment of cancer. All of our product candidates are designed to be allogeneic, meaning they are produced using cells from a different person than the patient treated, as well as off-the-shelf, meaning they are produced in quantity, then frozen and therefore available for treating patients without delay, unlike existing autologous cell therapies, or cell therapies derived from a patient’s own cells. Based on recently published data and data presented at medical conferences from a number of clinical trials of certain NK cell therapies, we believe that engineered NK cells have the potential to be an effective cancer therapy, be well tolerated, and avoid some of the toxicities observed with other cell therapies. Our two co-lead product candidates are NKX101, a CAR-NK product candidate targeting cells that display NKG2D ligands, and NKX019, a CAR-NK product candidate targeting CD19.

Our modular NK cell engineering platform is designed to address the limitations and challenges of current technologies for engineering T cells and NK cells and is a result of our internal expertise and deep understanding of NK cell biology. Our platform includes proprietary technologies for NK cell expansion, persistence, targeting and cryopreservation. All of our product candidates incorporate each of the four components of our technology platform, which we believe provides the best opportunity for achieving clinically meaningful results in our development program.

NKX101 is currently being studied in a multi-center Phase 1 clinical trial for the treatment of relapsed /refractory acute myeloid leukemia and higher-risk myelodysplastic syndromes. This first-in-human study evaluates the safety, pharmacokinetics, and preliminary anti-tumor activity of NKX101, administered in a cycle of either three weekly infusions (Regimen A) or two weekly infusions (Regimen B) following lymphodepletion in multiple centers in the U.S. The clinical trial consists of parallel dose-finding in both regimens followed by dose-expansion and is designed to identify the recommended Phase 2 dose.

Our Investigational New Drug application for NKX019 for the treatment of B-cell malignancies was accepted by the U.S. Food and Drug Administration in April 2021, and the clinical trial notification was filed with Therapeutic Goods Administration - Australia following appropriate Human Research Ethics Committees approval in Australia in May 2021. We plan to begin dosing the first patient with NKX019 in a Phase 1 clinical trial in the second half of 2021.

Our principal executive offices are located at 6000 Shoreline Court, Suite 102, South San Francisco, California 94080, our telephone number is (415) 582-4923, and our website is www.nkartatx.com. The information contained on or that can be accessed through our website does not constitute part of this prospectus, except for reports filed with the SEC that are specifically incorporated herein by reference.

RISK FACTORS

Investing in any of our securities involves significant risks. Before making an investment decision, in addition to the other information contained in or incorporated by reference in this prospectus and any prospectus supplement, you should carefully consider the specific risks set forth under the heading “Risk Factors” in our most recent Annual Report on Form 10-K filed with the SEC, as such risk factors may be amended, supplemented or superseded from time to time by other reports we file with the SEC, including subsequent Annual Reports on Form 10-K and Quarterly Reports on Form 10-Q, and the risk factors described under the caption “Risk Factors” in any applicable prospectus supplement. See “Where You Can Find More Information” and “Information We Incorporate by Reference.” If any of these risks actually occurs, our business, results of operations and financial condition could suffer. In that case, the trading price of our securities could decline, and you could lose all or part of your investment. Additional risks and uncertainties not currently known to us, or that we currently believe are immaterial, may also adversely affect our business, operating results and financial condition and the value of an investment in our securities. In addition, past financial performance may not be a reliable indicator of future performance, and historical trends should not be used to anticipate results or trends in future periods.

USE OF PROCEEDS

We intend to use the net proceeds from the sale of any securities covered by this prospectus as set forth in the applicable prospectus supplement. Pending any specific application, we may temporarily invest funds in short-term investments, including marketable securities.

DESCRIPTION OF CAPITAL STOCK

The following summary of the material features of our capital stock does not purport to be complete and is subject to, and qualified in its entirety by, the provisions of our amended and restated certificate of incorporation (as amended and as in effect, our "Certificate of Incorporation") and our amended and restated bylaws (as amended and as in effect, our "Bylaws"), each of which are filed as exhibits to the registration statement of which this prospectus is a part, as well as applicable provisions of the Delaware General Corporation Law (the "DGCL").

Authorized Capital Stock

Our authorized capital stock consists of 100,000,000 shares of common stock, par value \$0.0001 per share, and 54,350,179 shares of preferred stock, par value \$0.0001 per share.

As of August 9, 2021, (i) 32,906,550 shares of our common stock were issued and outstanding and (ii) no shares of preferred stock were issued and outstanding.

Common Stock

Voting Rights. The holders of our common stock are entitled to one vote per share on all matters submitted to a vote of stockholders; *provided, however,* that, except as otherwise required by law, holders of common stock, as such, shall not be entitled to vote on any amendment to our Certificate of Incorporation that relates solely to the terms of one or more outstanding series of preferred stock if the holders of such affected series are entitled, either separately or together with the holders of one or more other such series, to vote thereon pursuant to our Certificate of Incorporation or the DGCL. Holders of our common stock do not have cumulative voting rights in the election of directors. Accordingly, the holders of a majority of the combined voting power of our common stock could, if they so choose, elect all the directors.

Dividend Rights. Dividends may be declared and paid on the common stock if, as and when determined by our board of directors subject to any preferential dividend or other rights of any then outstanding preferred stock and to the requirements of applicable law.

Other Preferential Rights. Upon our dissolution or liquidation, whether voluntary or involuntary, holders of common stock will be entitled to receive all assets of the Company available for distribution to our stockholders, subject to any preferential or other rights of any then outstanding preferred stock.

Other Matters. Our Certificate of Incorporation does not entitle holders of our common stock to preemptive or conversion rights or other subscription rights. There are no redemption or sinking fund provisions applicable to our common stock. The common stock may not be subdivided or combined in any manner unless the conversion price of any other class that is convertible to common stock is increased or decreased, as applicable, in the same proportion. All outstanding shares of our common stock are fully paid and non-assessable.

Authorized but Unissued Preferred Stock

The authorized shares of preferred stock are available for issuance without further action by our stockholders unless required by law or by the rules and regulations of any stock exchange on which our common stock may be listed. Our Certificate of Incorporation authorizes our board of directors to establish, from time to time, the number of shares to be included in each series of preferred stock, and to fix the designation, powers, privileges, preferences, and relative participating, optional or other rights, if any, of the shares of each series of preferred stock, and any of its qualifications, limitations or restrictions. Our board of directors is authorized to increase or decrease the number of shares of any series of preferred stock, but not below the number of shares of that series of preferred stock then outstanding, without any further vote or action by the stockholders.

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The issuance of preferred stock could adversely affect the voting power of holders of common stock and the likelihood that such holders will receive dividend payments and payments upon liquidation. In addition, the existence of unissued and unreserved common stock or preferred stock may enable our board of directors to issue shares to persons friendly to current management, which could render more difficult or discourage an attempt to obtain control of us by means of a merger, tender offer, proxy contest or otherwise, and could thereby protect the continuity of our management and possibly deprive stockholders of opportunities to sell their shares of common stock at prices higher than prevailing market prices.

Choice of Forum

Our Certificate of Incorporation provides that, unless we consent in writing to the selection of an alternative forum, to the fullest extent permitted by law, the Court of Chancery in the State of Delaware shall be the sole and exclusive forum for any stockholder (including any beneficial owner) to bring (i) any derivative action or proceeding brought on our behalf, (ii) any action asserting a claim of breach of a fiduciary duty owed by any of our directors, officers, or employees to us or to our stockholders, (iii) any action asserting a claim against us, our directors, officers or employees arising pursuant to any provision of the DGCL or our Certificate of Incorporation or Bylaws, or (iv) any action asserting a claim governed by the internal affairs doctrine; in all cases subject to the court's having personal jurisdiction over the indispensable parties named as defendants. Our Certificate of Incorporation also provides that if and only if the Court of Chancery of the State of Delaware dismisses any such action for lack of subject matter jurisdiction, such action may be brought in another state or federal court sitting in the State of Delaware. This exclusive forum provision is intended to apply to claims arising under Delaware state law and is not intended to apply to claims brought pursuant to the Exchange Act or the Securities Act, or any other claim for which the federal courts have exclusive jurisdiction. This exclusive forum provision does not relieve us of our duties to comply with the federal securities laws and the rules and regulations thereunder, and our stockholders are not deemed to have waived our compliance with these laws, rules and regulations. Our Certificate of Incorporation further provides that, unless we consent in writing to the selection of an alternative forum, the federal district courts of the United States of America are, to the fullest extent permitted by law, the sole and exclusive forum for resolving any complaint asserting a cause of action arising under the Securities Act. Any person or entity purchasing or otherwise acquiring or holding any interest in shares of our capital stock is deemed to have notice of and consented to the foregoing provisions.

Certain Provisions of Delaware Law, Our Certificate of Incorporation and Our Bylaws

The following paragraphs summarize certain provisions of our Certificate of Incorporation and Bylaws, as well as selected provisions of the DGCL.

Authorized but Unissued Shares; Undesignated Preferred Stock. The authorized but unissued shares of our common stock will be available for future issuance without stockholder approval except as required by law or by any stock exchange on which our common stock may be listed. These additional shares may be utilized for a variety of corporate purposes, including future public offerings to raise additional capital, acquisitions and employee benefit plans. In addition, our board of directors may authorize, without stockholder approval, the issuance of up to 54,350,179 shares of preferred stock with voting rights or other rights or preferences designated from time to time by our board of directors.

No Cumulative Voting. Our Certificate of Incorporation provides that stockholders are not permitted to cumulate votes in the election of directors.

Staggered Board of Directors. Our board of directors is divided into three classes. The directors in each class serve for three-year terms with one class being elected each year by our stockholders.

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Removal of Directors. Our Certificate of Incorporation and Bylaws provide that, subject to the rights of holders of any series of preferred stock, directors can be removed but only for cause and only by the affirmative vote of holders of at least two-thirds in voting power of our outstanding shares of capital stock entitled to vote at an election of directors.

No Stockholder Right to Fill Board Vacancies. Our Certificate of Incorporation and Bylaws provide that, subject to the rights of holders of any series of preferred stock, any vacancy or newly created directorship in our board of directors can be filled only by vote of a majority of the directors then in office, although less than a quorum, or by a sole remaining director and shall not be filled by stockholders unless otherwise determined by resolution of the board of directors. Each director so elected shall hold office until the next election of the class for which such director shall have been chosen, subject to the election and qualification of a successor and to such director's earlier death, resignation or removal.

Special Meetings of Stockholders. Our Certificate of Incorporation and Bylaws provide that special meetings of our stockholders may be called only by our board of directors, the Chairperson of our board of directors, our Chief Executive Officer or President, or by one or more of our stockholders holding shares in the aggregate entitled to cast not less than 10% of the votes at that meeting.

Stockholder Action by Written Consent. Our Certificate of Incorporation and Bylaws provide that any action required or permitted to be taken by our stockholders must be effected at a duly called annual or special meeting of our stockholders and may not be effected by any consent in writing by such stockholders.

Advance Notice Requirements for Stockholder Proposals and Nomination of Directors. Our Bylaws require stockholders seeking to bring business before an annual meeting of stockholders, or to nominate individuals for election as directors at an annual or special meeting of stockholders, to provide timely notice in writing. Our Bylaws also specify requirements as to the form and content of a stockholder's notice.

Supermajority Vote to Amend Certain Provisions of our Bylaws and Certificate of Incorporation. Our Certificate of Incorporation requires the affirmative vote of the holders of at least two-thirds in voting power of the outstanding shares of our capital stock entitled to vote thereon to amend certain provisions of our Certificate of Incorporation. In addition, our Bylaws provide that stockholders shall have the power to adopt, amend or repeal the Bylaws; provided, however, that such action by stockholders shall require the affirmative vote of the holders of at least two-thirds in voting power of the outstanding shares of our capital stock entitled to vote thereon.

Section 203 of the Delaware General Corporation Law. We are subject to Section 203 of the DGCL, which provides that, subject to certain stated exceptions, a corporation may not engage in a business combination with any "interested stockholder" (as defined below) for a period of three years following the time that such stockholder became an interested stockholder, unless:

- prior to such time the board of directors of the corporation approved either the business combination or transaction which resulted in the stockholder becoming an interested stockholder;
- upon consummation of the transaction which resulted in the stockholder becoming an interested stockholder, the interested stockholder owned at least 85% of the voting stock of the corporation outstanding at the time the transaction commenced, excluding shares owned by persons who are directors and also officers and employee stock plans in which 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;
- at or subsequent to such time, the business combination is approved by the board of directors and authorized at an annual or special meeting of stockholders, and not by written consent; or

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- by the affirmative vote of 66 2/3% of the outstanding voting stock which is not owned by the interested stockholder.

An “interested stockholder” is any person (other than the corporation and any direct or indirect majority-owned subsidiary) who owns 15% or more of the outstanding voting stock of the corporation or is an affiliate or associate of the corporation and was the owner of 15% or more of the outstanding voting stock of the corporation at any time within the three-year period immediately prior to the date of determination, and the affiliates and associates of such person.

Anti-Takeover Effect of Certain Provisions of the DGCL and of our Certificate of Incorporation and Bylaws.

Certain provisions of DGCL and of our Certificate of Incorporation and Bylaws discussed above, including provisions relating to our staggered board of directors, the removal of directors and the filling of vacancies, the advance notice provisions, the prohibition on stockholder action by written consent and the supermajority vote requirement to amend our Bylaws and certain provisions of our Certificate of Incorporation, alone or in combination, could make the acquisition of us more difficult and could delay, defer or prevent a tender offer or other takeover attempt that a stockholder might consider to be in its best interest, including takeover attempts that might result in the payment of a premium to stockholders over the market price for their shares. These provisions also may promote the continuity of our management by making it more difficult for a person to remove or change the incumbent members of our board of directors.

Transfer Agent and Registrar

The transfer agent and registrar for our common stock is Philadelphia Stock Transfer, Inc.

Listing

Our common stock is listed on The Nasdaq Global Select Market under the symbol “NKTX.”

DESCRIPTION OF DEBT SECURITIES

The following description, together with the additional information we include in any applicable prospectus supplement, summarizes certain general terms and provisions of the debt securities that we may offer in one or more series under this prospectus. When we offer to sell a particular series of debt securities, we will describe the specific terms of the series in a supplement to this prospectus. We will also indicate in the supplement to what extent the general terms and provisions described in this prospectus apply to a particular series of debt securities. To the extent the information contained in the prospectus supplement differs from this summary description, you should rely on the information in the prospectus supplement.

We will issue any senior debt securities under the senior indenture which we will enter into with the trustee to be named in the senior indenture. We will issue any subordinated debt securities under the subordinated indenture which we will enter into with the trustee to be named in the subordinated indenture. We have filed forms of these indentures as exhibits to the registration statement of which this prospectus is a part, and supplemental indentures and forms of debt securities containing the terms of the debt securities being offered will be filed as exhibits to the registration statement of which this prospectus is a part or will be incorporated by reference from reports that we file with the SEC. Unless the context requires otherwise, we use the term “indenture” to refer to both the senior indenture and the subordinated indenture, as well as to refer to any supplemental indentures that specify the terms of a particular series of debt securities. Except as we may otherwise indicate, the terms of the senior indenture and the subordinated indenture are identical.

The indenture will be qualified under the Trust Indenture Act of 1939. We use the term “trustee” to refer to either the senior trustee or the subordinated trustee, as applicable.

The following summary of material provisions of the senior debt securities, the subordinated debt securities and the indenture is subject to, and is qualified in its entirety by reference to, all the provisions of the indenture applicable to a particular series of debt securities. We urge you to read the applicable prospectus supplement related to the debt securities that we sell under this prospectus, as well as the complete indenture that contains the terms of the debt securities.

General

The indenture does not limit the aggregate principal amount of debt securities that may be issued thereunder. The debt securities may be issued from time to time in one or more series and the terms of each series of debt securities will be established by or pursuant to a resolution of our board of directors and set forth in an officer’s certificate or a supplemental indenture. The particular terms of each series of debt securities will be described in a prospectus supplement relating to that series (including any pricing supplement or term sheet), including the following terms, if applicable:

- the title of the debt securities;
- the price or prices (expressed as a percentage of the principal amount) at which we will sell the debt securities;
- the aggregate principal amount of the debt securities being offered and any limit on the aggregate principal amount of that series of debt securities;
- whether any of our direct or indirect subsidiaries will guarantee the debt securities, including the terms of subordination, if any, of those guarantees;
- the terms of the subordination of any series of subordinated debt securities;
- the date or dates on which the principal of the securities of the series is payable;
- the interest rate, if any, and the method for calculating the interest rate;

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- the identity of the trustee;
- the dates from which interest will accrue, the interest payment dates and the record dates for the interest payments;
- the place or places where the principal of, and any premium or interest on, the debt securities shall be payable, where the securities of that series may be surrendered for registration of transfer or exchange, and where notices and demands to us in respect of the debt securities may be delivered;
- any mandatory or optional redemption terms;
- any obligation we have to redeem or purchase the debt securities pursuant to any sinking fund or analogous provisions or at the option of a holder of debt securities and the period or periods within which, the price or prices at which and the terms and conditions upon which securities of the series shall be redeemed or purchased, in whole or in part, pursuant to that obligation;
- any dates, if any, on which, and the price or prices at which, we will repurchase debt securities at the option of the holders of debt securities and other detailed terms and provisions of any such repurchase obligations;
- the denominations in which the debt securities will be issued;
- whether the debt securities will be issued in the form of certificated debt securities or global debt securities;
- if other than the principal amount thereof, the portion of the principal amount of the debt securities of the series that shall be payable upon declaration of acceleration of the maturity thereof;
- if the debt securities are denominated in other than United States dollars, the currency or currencies (including composite currencies) in which the debt securities are denominated;
- the designation of the currency, currencies or currency units in which payment of the principal of, and any premium or interest on, the debt securities of the series will be made;
- if payments of principal of, or any premium or interest on, the debt securities will be made in one or more currencies or currency units other than that or those in which the debt securities are denominated, the manner in which the exchange rate with respect to those payments will be determined;
- the manner in which the amounts of payment of principal of, and any premium or interest on, the debt securities will be determined, including if these amounts may be determined by reference to an index based on a currency or currencies or by reference to a commodity, commodity index, stock exchange index or financial index;
- any provisions relating to any security provided for the debt securities;
- any addition to, deletion of or change in the events of default described in this prospectus or in the indenture with respect to the debt securities and any change in the acceleration provisions described in this prospectus or in the indenture with respect to the debt securities;
- any addition to, deletion of or change in the covenants described in this prospectus or in the indenture with respect to the debt securities;
- any depositaries, interest rate calculation agents, exchange rate calculation agents or other agents appointed with respect to the debt securities;
- the provisions, if any, relating to conversion or exchange of any series of debt securities, including if applicable, the conversion or exchange price and period, the securities or other property into which the debt securities will be convertible, provisions as to whether conversion or exchange will be mandatory, at the option of the holders thereof or at our option, the events requiring an adjustment of the conversion price or exchange price and provisions affecting conversion or exchange if that series of debt securities is redeemed; and

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- any other terms of the series of debt securities that may supplement, modify or delete any provision of the indenture as it applies to that series, including any terms that may be required under applicable law or regulations or advisable in connection with the marketing of the debt securities.

In addition, we will provide you with information on the federal income tax considerations and other special considerations applicable to any of these debt securities in the applicable prospectus supplement.

If we denominate the purchase price of any of the debt securities in a foreign currency or currencies or a foreign currency unit or units, or if the principal of, or any premium or interest on, any series of debt securities is payable in a foreign currency or currencies or a foreign currency unit or units, we will provide you with information on the restrictions, elections, general tax considerations, specific terms and other information with respect to that issue of debt securities and the foreign currency or currencies or foreign currency unit or units in the applicable prospectus supplement.

Transfer and Exchange

Each debt security will be represented by either one or more global securities registered in the name of The Depository Trust Company, as the depository, or a nominee of the depository (we will refer to any such debt security as a “global debt security”), or a certificate issued in definitive registered form (we will refer to any debt security represented by a certificate as a “certificated debt security”) as set forth in the applicable prospectus supplement. Except as set forth below, global debt securities will not be issuable in certificated form.

Certificated Debt Securities. You may transfer or exchange certificated debt securities at any office we maintain for this purpose in accordance with the terms of the indenture. No service charge will be made for any transfer or exchange of certificated debt securities, but we may require payment of a sum sufficient to cover any tax or other governmental charge payable in connection with a transfer or exchange.

You may effect the transfer of certificated debt securities and the right to receive the principal of and any premium and interest on certificated debt securities only by surrendering the certificate representing those certificated debt securities and either reissuance by us or the trustee of the certificate to the new holder or the issuance by us or the trustee of a new certificate to the new holder.

Global Debt Securities and Book-Entry System. Each global debt security will be deposited with, or on behalf of, the depository, and registered in the name of the depository or a nominee of the depository. Beneficial interests in global debt securities will not be issuable in certificated form unless (i) the depository has notified us that it is unwilling or unable to continue as depository for that global debt security or has ceased to be qualified to act as such as required by the indenture and we fail to appoint a successor depository within 90 days of such event, (ii) we determine, in our sole discretion, not to have those securities represented by one or more global securities or (iii) any other circumstances shall exist, in addition to or in lieu of those described above, as may be described in the applicable prospectus supplement. Unless and until a global debt security is exchanged for certificated debt securities under the limited circumstances described in the previous sentence, a global debt security may not be transferred except as a whole by the depository to its nominee or by the nominee to the depository, or by the depository or its nominee to a successor depository or to a nominee of the successor depository.

Consolidation, Merger and Sale of Assets

The indenture generally provides that we may not consolidate with or merge with or into, sell, convey, transfer or dispose of all or substantially all of our assets to another entity, whether in one transaction or a series of related transactions, unless: (i) the resulting, surviving or transferee entity (A) is a corporation, limited liability corporation, partnership or trust organized under the laws of the United States, any state thereof or the District of Columbia, and (B) expressly assumes by a supplemental indenture all of our obligations under the debt securities

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and the indenture, (ii) immediately after giving effect to such transaction no Event of Default (as defined herein) and no circumstances which, after notice or lapse of time or both, would become an Event of Default, shall have happened and be continuing, and (iii) we shall have delivered to the trustee an officers' certificate and an opinion of counsel, each stating that such consolidation, merger or transfer and such supplemental indenture comply with the indenture.

Events of Default

"Event of Default" means with respect to any series of debt securities, any of the following:

- default in the payment of any interest upon any debt security of that series when it becomes due and payable, and continuance of such default for a period of 30 days (unless the entire amount of the payment is deposited by us with the trustee or with a paying agent prior to the expiration of the 30-day period);
- default in the payment of principal of, or any premium on, any debt security of that series at its maturity;
- default in the performance or breach of any covenant by us in the indenture (other than defaults described above or defaults relating to a covenant that has been included in the indenture solely for the benefit of a series of debt securities other than that series), which default continues uncured for a period of 90 days after we receive written notice thereof;
- the occurrence of specified events of bankruptcy, insolvency or reorganization; and
- any other event of default provided with respect to a series of debt securities that is described in the applicable prospectus supplement.

No event of default with respect to a particular series of debt securities (except as to certain events of bankruptcy, insolvency or reorganization) necessarily constitutes an event of default with respect to any other series of debt securities. The occurrence of certain events of default or an acceleration under the indenture may constitute an event of default under certain indebtedness of ours or our subsidiaries outstanding from time to time.

If an event of default with respect to any series of debt securities at the time outstanding occurs and is continuing (other than an event of default resulting from certain events of bankruptcy, insolvency or reorganization), then the trustee or the holders of not less than 25% in principal amount of the outstanding debt securities of that series may, by a notice in writing to us (and to the trustee if given by the holders), declare to be due and payable immediately the principal of (or, if the debt securities of that series are discount securities, that portion of the principal amount as may be specified in the terms of that series) and accrued and unpaid interest, if any, on all debt securities of that series. In the case of an event of default resulting from certain events of bankruptcy, insolvency or reorganization, the principal amount (or such specified amount) of and accrued and unpaid interest, if any, on all outstanding debt securities will become and be immediately due and payable without any declaration or other act on the part of the trustee or any holder of outstanding debt securities. At any time after a declaration of acceleration with respect to debt securities of any series has been made, but before a judgment or decree for payment of the money due has been obtained by the trustee, the holders of a majority in principal amount of the outstanding debt securities of that series, by written notice to us and the trustee, may rescind and annul such declaration of acceleration and its consequences if all events of default, other than the non-payment of accelerated principal and interest, if any, with respect to debt securities of that series, have been cured or waived as provided in the indenture. We refer you to the prospectus supplement relating to any series of debt securities that are discount securities for the particular provisions relating to acceleration of a portion of the principal amount of those discount securities upon the occurrence of an event of default.

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The indenture provides that the trustee will be under no obligation to perform any duty or exercise any of its rights or powers under the indenture unless the trustee receives indemnity satisfactory to it against any cost, liability or expense which might be incurred by it in performing that duty or exercising that right or power. Subject to certain rights of the trustee, the holders of a majority in principal amount of the outstanding debt securities of any series will have the right to direct the time, method and place of conducting any proceeding for any remedy available to the trustee or exercising any trust or power conferred on the trustee with respect to the debt securities of that series.

No holder of any debt security of any series will have any right to institute any proceeding, judicial or otherwise, with respect to the indenture or for the appointment of a receiver or trustee, or for any remedy under the indenture, unless:

- that holder has previously given to the trustee written notice of a continuing event of default with respect to debt securities of that series;
- the holders of not less than 25% in principal amount of the outstanding debt securities of that series have made written request to the trustee to institute the proceedings in respect of that event of default in its own name as trustee under the indenture;
- such holder or holders have offered to the trustee indemnity or security satisfactory to the trustee against the costs, expenses and liabilities which might be incurred by the trustee in compliance with the request;
- the trustee has failed to institute any such proceeding for 60 days after its receipt of such notice, request and offer of indemnity; and
- no direction inconsistent with the written request has been given to the trustee during that 60-day period by holders of a majority in principal amount of the outstanding debt securities of that series.

Notwithstanding any other provision in the indenture, the holder of any debt security will have an absolute and unconditional right to receive payment of the principal of, and any interest on, that debt security on or after the due dates expressed in that debt security (or, in the case of redemption, on the redemption date) and to institute suit for the enforcement of any such payment, and such rights shall not be impaired without the consent of such holder.

The indenture requires us, within 120 days after the end of our fiscal year, to furnish to the trustee a statement as to compliance with the indenture from our principal executive officer, principal financial officer or principal accounting officer. If a default or event of default occurs and is continuing with respect to the debt securities of any series and if it is actually known to a responsible officer of the trustee, the trustee shall mail to each holder of the debt securities of that series notice of a default or event of default within 90 days after it occurs or, if later, after a responsible officer of the trustee has knowledge of such default or event of default. The indenture provides that the trustee may withhold notice to the holders of debt securities of any series of any default or event of default (except in payment on any debt securities of that series) with respect to debt securities of that series if the trustee determines in good faith that withholding notice is in the interest of the holders of those debt securities.

Modification and Waiver

We and the trustee may modify and amend or supplement the indenture or the debt securities of one or more series without the consent of any holder of any debt security:

- to add guarantees with respect to debt securities of a series or secure debt securities of a series;
- to surrender any of our rights or powers under the indenture;
- to add covenants or events of default for the benefit of the holders of any series of debt securities;

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- to secure the debt securities;
- to comply with the applicable rules or procedures of any applicable depository;
- to cure any ambiguity, defect or inconsistency;
- to comply with the provisions of the indenture concerning consolidations, mergers and transfers of all or substantially all of our assets;
- to provide for uncertificated securities in addition to or in place of certificated securities;
- to make any change that does not materially adversely affect the rights of any holder of that series of debt securities;
- to effect the appointment of a successor trustee with respect to the debt securities of any series and to add to or change any of the provisions of the indenture to provide for or facilitate administration by more than one trustee;
- to comply with requirements of the SEC in order to effect or maintain the qualification of the indenture under the Trust Indenture Act;
- to comply with the rules or regulations of any securities exchange or automated quotation system on which any of the debt securities may be listed or traded;
- to provide for the issuance of and establish the form and terms and conditions of debt securities of any series as permitted by the indenture; and
- for certain other reasons set forth in any prospectus supplement.

We may also modify and amend the indenture with the consent of the holders of at least a majority in principal amount of the outstanding debt securities of each series affected by the modifications or amendments. We may not make any modification or amendment without the consent of the holders of each affected debt security then outstanding if that amendment will:

- reduce the principal amount of debt securities of that series whose holders must consent to an amendment, supplement or waiver;
- reduce the rate of or extend the time for payment of interest (including default interest) on any debt security or that series;
- reduce the principal of, or change the fixed maturity of, any debt security of that series or reduce the amount of, or postpone the date fixed for, the payment of any sinking fund or analogous obligation with respect to that series of debt securities;
- reduce the principal amount of discount securities of that series payable upon acceleration of maturity;
- waive a default in the payment of the principal of, or interest, if any, on any debt security of that series (except a rescission of acceleration of the debt securities of any series by the holders of at least a majority in principal amount of the then outstanding debt securities of that series and a waiver of the payment default that resulted from such acceleration);
- make the principal of, or any interest on, any debt security of that series payable in currency other than that stated in the debt security;
- make any change to certain provisions of the indenture relating to, among other things, (i) the right of holders of debt securities to receive payment of the principal of, and any interest on, those debt securities and to institute suit for the enforcement of any such payment and (ii) waivers or amendments; or
- waive a redemption payment with respect to any debt security of that series, provided that such redemption is made at our option.

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Except for certain specified provisions, the holders of at least a majority in principal amount of the outstanding debt securities of any series may, on behalf of the holders of all debt securities of that series, by written notice to the trustee, waive our compliance with provisions of the indenture or the debt securities with respect to that series. The holders of a majority in principal amount of the outstanding debt securities of any series may, on behalf of the holders of all the debt securities of that series, waive any past default under the indenture with respect to that series and its consequences, except a default in the payment of the principal of, or any interest on, any debt security of that series; provided, however, that the holders of a majority in principal amount of the outstanding debt securities of any series may rescind an acceleration and its consequences, including any related payment default that resulted from the acceleration.

Satisfaction and Discharge of Indenture

The indenture shall cease to be of further effect with respect to a series of debt securities when either:

- we have delivered to the trustee for cancellation all outstanding debt securities of that series, other than any debt securities that have been destroyed, lost or stolen and that have been replaced or paid as provided in the indenture;
- all outstanding debt securities of that series that have not been delivered to the trustee for cancellation have become due and payable or are by their terms to become due and payable within one year or are to be called for redemption within one year under arrangements satisfactory to the trustee for the giving of notice of redemption, and we have irrevocably deposited with the trustee as trust funds the entire amount, in cash in U.S. dollars or U.S. governmental obligations, sufficient to pay at maturity or upon redemption all debt securities of that series, including principal of and any premium and interest due or to become due to such date of maturity or date fixed for redemption, as the case may be; or
- we have properly fulfilled any other means of satisfaction and discharge that may be set forth in the terms of the debt securities of that series.

In each case, we will also pay all other sums payable by us under the indenture with respect to the debt securities of that series and deliver to the trustee an opinion of counsel and an officers' certificate, each stating that all conditions precedent to satisfaction and discharge with respect to the debt securities of that series have been complied with.

Defeasance

Legal Defeasance. The indenture provides that, unless otherwise provided by the terms of the applicable series of debt securities, we may be discharged from any and all obligations in respect of the debt securities of any series (subject to certain exceptions). We will be so discharged upon the deposit with the trustee, in trust, of money and/or U.S. government obligations or, in the case of debt securities denominated in a single currency other than U.S. dollars, government obligations of the government that issued or caused to be issued such currency, that, through the payment of interest and principal in accordance with their terms, will provide money in an amount sufficient in the opinion of a nationally recognized firm of independent public accountants or investment bank to pay and discharge each installment of principal of and interest, if any, on and any mandatory sinking fund payments in respect of the debt securities of that series on the stated maturity of those payments in accordance with the terms of the indenture and those debt securities.

This discharge may occur only if, among other things, we have delivered to the trustee an opinion of counsel stating that we have received from, or there has been published by, the United States Internal Revenue Service a ruling or, since the date of execution of the indenture, there has been a change in the applicable United States federal income tax law, in either case to the effect that, and based thereon such opinion shall confirm that, the holders of the debt securities of that series will not recognize income, gain or loss for United States federal income tax purposes as a result of the deposit, defeasance and discharge and will be subject to United States federal income tax on the same amounts and in the same manner and at the same times as would have been the case if the deposit, defeasance and discharge had not occurred.

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Defeasance of Certain Covenants. The indenture provides that, unless otherwise provided by the terms of the applicable series of debt securities, upon compliance with certain conditions:

- we may be released from our obligations with respect to certain covenants set forth in the indenture, as well as any additional covenants which may be set forth in the applicable prospectus supplement and supplemental indenture; and
- any omission to comply with those covenants will not constitute a default or an event of default with respect to the debt securities of that series (“covenant defeasance”).

The conditions include:

- depositing with the trustee money and/or U.S. government obligations or, in the case of debt securities denominated in a single currency other than U.S. dollars, government obligations of the government that issued or caused to be issued such currency, that, through the payment of interest and principal in accordance with their terms, will provide money in an amount sufficient in the opinion of a nationally recognized firm of independent public accountants or investment bank to pay and discharge each installment of principal of and interest, if any, on and any mandatory sinking fund payments in respect of the debt securities of that series on the stated maturity of those payments in accordance with the terms of the indenture and those debt securities;
- delivering to the trustee an opinion of counsel to the effect that the holders of the debt securities of that series will not recognize income, gain or loss for United States federal income tax purposes as a result of the deposit and related covenant defeasance and will be subject to United States federal income tax on the same amounts and in the same manner and at the same times as would have been the case if the deposit and related covenant defeasance had not occurred; and
- delivering to the trustee an opinion of counsel and an officer’s certificate, each stating that all conditions precedent to defeasance with respect to the debt securities of that series have been complied with.

Governing Law

The indenture and any debt securities issued thereunder will be governed by and construed in accordance with the laws of the State of New York (without regard to the conflicts of law provisions other than Section 5-1401 of the New York General Obligations Law).

Subordination of Subordinated Debt Securities

The subordinated debt securities will be subordinate and junior in priority to certain of our other indebtedness to the extent described in a prospectus supplement.

DESCRIPTION OF WARRANTS

We may issue warrants to purchase shares of our common stock, shares of our preferred stock or debt securities. We may issue warrants independently of or together with shares of our common stock, shares of our preferred stock, debt securities or other securities offered by any prospectus supplement. Warrants sold with other securities may be attached to or separate from shares of our common stock, shares of our preferred stock, debt securities or other securities. We may issue warrants under one or more warrant agreements between us and a bank or trust company, as warrant agent, that we will name in the prospectus supplement relating to the particular issue of offered warrants. If we appoint a warrant agent, such warrant agent will act solely as our agent in connection with the warrants and will not assume any obligation or relationship of agency or trust for or with any holders or beneficial owners of warrants.

The prospectus supplement relating to any warrants we offer will include specific terms relating to the offering. These terms may include some or all of the following:

- the title of the warrants;
- the aggregate number of warrants to be offered;
- the price or prices at which the warrants will be issued;
- the currency or currencies, including composite currencies, in which the price of the warrants may be payable;
- the designation and terms of the securities purchasable upon exercise of the warrants and the number of securities issuable upon exercise of the warrants;
- the price at which and the currency or currencies, including composite currencies, in which the securities purchasable upon exercise of the warrants may be purchased;
- the date on which the right to exercise the warrants shall commence and the date on which that right will expire;
- if applicable, the minimum or maximum amount of the warrants that may be exercised at any one time;
- if applicable, the designation and terms of the securities with which the warrants are issued and the number of warrants issued with each such security;
- if applicable, the terms related to any permitted adjustment in the exercise price of or number of securities covered by the warrants;
- if applicable, the date on and after which the warrants and the related securities will be separately transferable;
- if applicable, a discussion of any material federal income tax considerations; and
- any other terms of the warrants, including terms, procedures and limitations relating to the exchange and exercise of warrants.

Exercise of Warrants

Each warrant will entitle the holder to purchase the securities that we specify in the applicable prospectus supplement at the exercise price that we describe in the applicable prospectus supplement. Holders of the warrants may exercise the warrants at any time up to the specified time on the expiration date that we set forth in the applicable prospectus supplement. After the specified time on the expiration date, unexercised warrants will become void.

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Warrants may be exercised as described in the applicable prospectus supplement. Upon receipt of the required payment and the warrant certificate properly completed and duly executed at the corporate trust office of the warrant agent or any other office indicated in the applicable prospectus supplement, we will, as soon as practicable, issue and deliver the underlying securities purchasable upon such exercise. If fewer than all of the warrants represented by a warrant certificate are exercised, we will issue a new warrant certificate for the remaining amount of warrants.

The description in the applicable prospectus supplement of any warrants we offer will not necessarily be complete and will be qualified in its entirety by reference to the applicable form of warrant agreement, including a form of warrant certificate, which will describe the terms of the series of warrants being offered and which will be filed with the SEC and incorporated by reference in the registration statement of which this prospectus is a part.

DESCRIPTION OF RIGHTS

We may issue rights for the purchase of shares of our common stock, shares of our preferred stock or debt securities. Each series of rights will be issued under a separate rights agreement to be entered into with a bank or trust company, as rights agent, all as set forth in the applicable prospectus supplement. The rights agent will act solely as our agent in connection with the certificates relating to the rights and will not assume any obligation or relationship of agency or trust with any holders of rights certificates or beneficial owners of rights.

The prospectus supplement relating to any rights we offer will describe the specific terms of those rights. These terms may include some or all of the following:

- the date for determining the persons entitled to participate in the rights distribution;
- the title and aggregate number or amount of underlying securities purchasable upon exercise of the rights and the exercise price;
- the aggregate number of rights being issued;
- the date, if any, on and after which the rights may be transferable separately;
- the date on which the right to exercise the rights will commence and the date on which the right will expire;
- the number of rights outstanding, if any;
- if applicable, a discussion of any material federal income tax considerations; and
- any other terms of the rights, including the terms, procedures and limitations relating to the distribution, exchange and exercise of the rights.

The description in the applicable prospectus supplement of any rights we offer will not necessarily be complete and will be qualified in its entirety by reference to the applicable form of rights agreement, which will describe the terms of the series of rights being offered and which will be filed with the SEC and incorporated by reference in the registration statement of which this prospectus is a part.

DESCRIPTION OF UNITS

We may issue units comprising two or more securities described in this prospectus in any combination. For example, we might issue units consisting of a combination of debt securities and warrants to purchase common stock. The following description sets forth certain general terms and provisions of the units that we may offer pursuant to this prospectus. The particular terms of the units and the extent, if any, to which the general terms and provisions may apply to the units so offered will be described in the applicable prospectus supplement.

Each unit will be issued so that the holder of the unit also is the holder of each security included in the unit. Thus, the unit will have the rights and obligations of a holder of each included security. Units will be issued pursuant to the terms of a unit agreement, which may provide that the securities included in the unit may not be held or transferred separately at any time or at any time before a specified date.

The prospectus supplement relating to any particular issuance of units we offer will describe the terms of those units. These terms may include some or all of the following:

- the designation and terms of the units and the securities comprising the units, including whether and under what circumstances those securities may be held or transferred separately;
- any provision for the issuance, payment, settlement, transfer or exchange of the units or of the securities comprising the units; and
- whether the units will be issued in fully registered or global form.

The description in the applicable prospectus supplement of any units we offer will not necessarily be complete. Such description will be qualified in its entirety by reference to the applicable form of unit agreement, including a form of unit certificate, which will describe the terms of the series of units being offered and which will be filed with the SEC and incorporated by reference in the registration statement of which this prospectus is a part.

PLAN OF DISTRIBUTION

We may offer and sell the securities described in this prospectus from time to time in one or more transactions, including without limitation:

- directly to one or more investors, including through a specific bidding, auction or other process;
- to investors through agents;
- directly to agents;
- to or through brokers or dealers;
- to the public through underwriting syndicates led by one or more managing underwriters;
- to one or more underwriters acting alone for resale to investors or to the public; or
- through a combination of any of these methods or any other method permitted pursuant to applicable law.

In addition, the manner in which we may offer and sell some or all of the securities described in this prospectus includes, without limitation, through:

- a block trade in which a broker-dealer will attempt to sell as agent, but may position or resell a portion of the block, as principal, in order to facilitate the transaction;
- purchases by a broker-dealer, as principal, and resale by the broker-dealer for its account;
- ordinary brokerage transactions and transactions in which a broker solicits purchasers; or
- privately negotiated transactions.

A prospectus supplement with respect to each offering of securities will set forth the terms of the offering and the method of distribution of the securities and will identify any firms acting as underwriters, dealers or agents in connection with the offering, including:

- the name or names of any underwriters, dealers or agents and the amounts of securities underwritten or purchased by each of them, if any;
- the purchase price of the securities being offered and the net proceeds to be received by us from the sale;
- any public offering price;
- any over-allotment options under which the underwriters may purchase additional securities from us;
- any delayed delivery arrangements;
- any underwriting discounts or commissions or agency fees and other items constituting compensation to underwriters, dealers or agents;
- any discounts or concessions allowed or reallocated or paid to dealers; and
- any securities exchange or markets on which the securities offered in the prospectus supplement may be listed.

The offer and sale of the securities described in this prospectus by us, the underwriters or the third parties described above may be effected from time to time in one or more transactions, including privately negotiated transactions, either:

- at a fixed price or prices, which may be changed;

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- at market prices prevailing at the time of sale;
- in “at the market offerings,” within the meaning of Rule 415(a)(4) of the Securities Act, to or through a market maker or into an existing trading market, on an exchange or otherwise;
- at prices related to the prevailing market prices; or
- at negotiated prices.

In connection with the sale of the securities, underwriters, dealers or agents may be deemed to have received compensation from us in the form of underwriting discounts or commissions and also may receive commissions from securities purchasers for whom they may act as agent. Underwriters may sell the securities to or through dealers, and the dealers may receive compensation in the form of discounts, concessions or commissions from the underwriters or commissions from the purchasers for whom they may act as agent.

Underwriters, dealers and agents participating in the securities distribution may be deemed to be underwriters, and any discounts and commissions they receive and any profit they realize on the resale of the securities may be deemed to be underwriting discounts and commissions under the Securities Act. Underwriters and their controlling persons, dealers and agents may be entitled, under agreements entered into with us, to indemnification against and contribution toward specific civil liabilities, including liabilities under the Securities Act.

Any securities we sell pursuant to a prospectus supplement may or may not be listed on a national securities exchange. It is possible that one or more underwriters may make a market in the securities, but such underwriters will not be obligated to do so and may discontinue any market making at any time without notice. No assurance can be given as to the liquidity of, or the trading market for, any offered securities.

In connection with any offering, the underwriters may purchase and sell securities in the open market. These transactions may include short sales, stabilizing transactions and purchases to cover positions created by short sales. Short sales involve the sale by the underwriters of a greater number of securities than they are required to purchase in an offering. Stabilizing transactions consist of bids or purchases made for the purpose of preventing a decline in the market price of the securities while an offering is in progress. The underwriters also may impose a penalty bid. This occurs when a particular underwriter repays to the underwriters a portion of the underwriting discount received by it because the underwriters have repurchased securities sold by or for the account of that underwriter in stabilizing or short-covering transactions. These activities by the underwriters may stabilize, maintain or otherwise affect the market price of the securities. As a result, the price of the securities may be higher than the price that otherwise might exist in the open market. If these activities are commenced, they may be discontinued by the underwriters at any time. Underwriters may engage in over-allotment. If any underwriters create a short position in the securities in an offering in which they sell more securities than are set forth on the cover page of the applicable prospectus supplement, the underwriters may reduce that short position by purchasing the securities in the open market.

Underwriters, dealers or agents that participate in the offer of securities, or their affiliates or associates, may have engaged or engage in transactions with and perform services for, us or our affiliates in the ordinary course of business for which they may have received or receive customary fees and reimbursement of expenses.

LEGAL MATTERS

Unless otherwise indicated in the applicable prospectus supplement, certain legal matters regarding the validity of the securities to be offered by this prospectus will be passed upon for us by O'Melveny & Myers LLP. Additional legal matters may be passed upon for us or any underwriters, dealers or agents by counsel that will be named in the applicable prospectus supplement.

EXPERTS

Ernst & Young LLP, independent registered public accounting firm, has audited our financial statements included in our Annual Report on Form 10-K for the year ended December 31, 2020, as set forth in their report, which is incorporated by reference in this prospectus and elsewhere in the registration statement. Our financial statements are incorporated by reference in reliance on Ernst & Young LLP's report, given on their authority as experts in accounting and auditing.

shares



Nkarta, Inc.

Common Stock

PROSPECTUS SUPPLEMENT

Cowen

SVB Securities

Evercore ISI

, 2022
