PROSPECTUS

\$150,000,000



Nkarta, Inc.

Common Stock

We have entered into a sales agreement, or Sales Agreement, with Cowen and Company, LLC, or Cowen, dated August 12, 2021, relating to the sale of shares of our common stock, par value \$0.0001 per share, offered by this prospectus. In accordance with the terms of the Sales Agreement, under this prospectus we may offer and sell shares of our common stock having an aggregate offering price of up to \$150,000,000 from time to time through or to Cowen, acting as our agent or principal.

Our common stock is listed on The Nasdaq Global Select Market under the symbol "NKTX." On August 11, 2021, the last reported sale price of our common stock on The Nasdaq Global Select Market was \$38.36 per share.

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

The compensation to Cowen for sales of common stock sold pursuant to the Sales Agreement will be equal to 3% of the aggregate gross proceeds of any shares of common stock sold under the Sales Agreement. In connection with the sale of the common stock on our behalf, Cowen will be deemed to be an "underwriter" within the meaning of the Securities Act and the compensation of Cowen will be deemed to be underwriting commissions or discounts. We have also agreed to provide indemnification and contribution to Cowen with respect to certain liabilities, including liabilities under the Securities Act or the Securities Exchange Act of 1934, as amended, or the Exchange Act.

Investing in our common stock involves a high degree of risk. Please read carefully the section entitled "Risk Factors" on page 6 of this prospectus and the "Risk Factors" section contained in the documents incorporated by reference in this 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 is truthful or complete. Any representation to the contrary is a criminal offense.

Cowen

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, or the SEC, using a "shelf" registration process. Under this shelf registration process, we may from time to time sell shares of our common stock having an aggregate offering price of up to \$150,000,000 under this prospectus at prices and on terms to be determined by market conditions at the time of the offering.

You should only rely on the information contained in or incorporated by reference in this prospectus. We have not, and Cowen has not, authorized anyone to provide you with different information. We and Cowen 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 Cowen are not making offers to sell the common stock 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 our common stock, you should carefully read this prospectus 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 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.

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 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, including the documents incorporated by reference herein, contains "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. 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;
- 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;
- 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.

PROSPECTUS SUMMARY

This summary highlights selected information contained elsewhere in this 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 carefully, especially the risks of investing in our common stock discussed under "Risk Factors" beginning on page 6 of this prospectus, along with our consolidated financial statements and notes to those consolidated financial statements and the other information incorporated by reference in this prospectus.

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. 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.

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, 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 of our common stock having an aggregate offering price of

up to \$150,000,000.

Manner of Offering We will sell the shares of our common stock offered hereby by any

method permitted that is deemed an "at the market offering" as defined in Rule 415(a)(4) under the Securities Act, through our sales

agent, Cowen and Company, LLC. See "Plan of Distribution."

Use of Proceeds We intend to use the net proceeds from the sale of any common

stock offered under this prospectus to fund the research, development and manufacturing of our product candidates, continue research activities related to advancing our NK cell therapy platform,

increase our working capital, fund capital expenditures and for

general corporate purposes.

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

See "Use of Proceeds."

Nasdaq Global Select Market Symbol "NKTX"

Risk FactorsInvesting in our common stock involves a high degree of risk. See "Risk Factors" beginning on page 6 of this prospectus and in the

documents incorporated by reference into this prospectus for a discussion of certain factors to consider carefully before deciding to

purchase any shares of our common stock.

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 and in the documents incorporated by reference herein, including the risks described in "Item 1A. Risk Factors" of our most recent Annual Report on Form 10-K or Quarterly Report on Form 10-Q 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. 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 Common Stock

The market price for our common stock may be volatile, which could contribute to the loss of all or part of your investment.

The market price of our common stock has experienced, and may continue to experience, significant volatility. Factors that may cause volatility in the price of our common stock, many of which are beyond our control, include, among others, the following: (i) our decision to initiate a clinical study, not to initiate a clinical study or to terminate an existing clinical study; (ii) adverse regulatory decisions, including failure to receive regulatory approval for our products; (iii) success or failure of competitive products, immunotherapy drugs or cellular therapies more generally; (iv) adverse developments concerning our manufacturers or our strategic partnerships; (v) adverse safety or other clinical results, such as those that have occurred in the past or that may occur in the future, including those related to cellular therapies being developed by other companies that are or may be perceived to be similar to our cellular therapies; (vi) operating and stock price performance of other companies that investors deem comparable to us; (vii) sales of substantial amounts of common stock by our directors, executive officers or significant stockholders or the perception that such sales could occur; (viii) general economic and political conditions such as recessions, interest rates, fuel prices, elections, drug pricing policies, international currency fluctuations, acts of war or terrorism, and other public health crises, illnesses, epidemics or pandemics, such as the potential impact of the COVID-19 outbreak; and (vix) other factors discussed in "Item 1A. Risk Factors" of our most recent Annual Report on Form 10-K or Quarterly Report on Form 10-Q 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, that are incorporated by reference herein.

Any of the factors listed above could materially adversely affect your investment in our common stock, and our common stock may trade at prices significantly below the initial public offering price or the price at which you purchased the stock, which could contribute to a loss of all or part of your investment. In such circumstances the trading price of our common stock may not recover and may experience a further decline.

In addition, broad market and industry factors could materially adversely affect the market price of our common stock, irrespective of our operating performance. The stock market in general, and The Nasdaq Global Select Market and the market for biotechnology companies in particular, have experienced extreme price and volume fluctuations that have often been unrelated or disproportionate to the operating performance of the particular companies affected. The trading prices and valuations of these stocks, and of ours, may not be predictable. For example, the trading prices for common stock of other biopharmaceutical and biotechnology companies have been highly volatile as a result of the COVID-19 pandemic. The COVID-19 outbreak continues to rapidly evolve. The extent to which the outbreak may impact our business, preclinical studies and clinical trials will depend on future developments, which are highly uncertain and cannot be predicted with confidence. A loss of investor confidence in the market for biotechnology or pharmaceutical stocks or the stocks of other companies which investors perceive to be similar to us, the opportunities in the biotechnology and pharmaceutical market or the stock market in general, could depress our stock price regardless of our business, financial condition, results of operations or growth prospects.

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 stockholders intend to sell shares of our common stock, could reduce the market price of our common stock. As of August 9, 2021, we had 32,906,550 shares of common stock outstanding.

Holders of an aggregate of 14,689,215 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.

Concentration of ownership of our shares of common stock among our existing executive officers, directors and principal stockholders may prevent new investors from influencing significant corporate decisions.

As of August 9, 2021, our directors and executive officers, and entities affiliated with them, as well as holders of more than 5% of our outstanding shares of common stock, in the aggregate beneficially own 63% of our common stock. These stockholders, acting together, are able to control or significantly influence all matters requiring stockholder approval, including the election and removal of directors and approval of any merger, consolidation or sale of all or substantially all of our assets.

Some of these persons or entities may have interests different from yours. For example, because many of these stockholders purchased their shares at prices substantially below the price at which shares were sold in the IPO and have held their shares for a longer period, they may be more interested in selling our Company to an acquirer than other investors, or they may want us to pursue strategies that deviate from the interests of other stockholders.

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. See "Dilution." The actual amount of dilution will be based on a number of factors, including the use of proceeds, and cannot be determined at this time. 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.

The common stock offered hereby will be sold in "at the market offerings," and investors who buy shares at different times will likely pay different prices.

Investors who purchase shares in this offering at different times will likely pay different prices, and so may experience different outcomes in their investment results. We will have discretion, subject to market demand, to vary the timing, prices and numbers of shares sold, and the equity distribution agreement does not specify any required minimum or maximum sales price. Investors may experience a decline in the value of their shares as a result of share sales made at prices lower than the prices they paid.

The actual number of shares we will issue under the Sales Agreement, at any one time or in total, is uncertain.

Subject to certain limitations in the Sales Agreement and compliance with applicable law, we have the discretion to submit an order to Cowen to sell shares of our common stock at any time throughout the term of the Sales Agreement. The number of shares that are sold by Cowen after we submit any such order will fluctuate based on the market price of the common stock during the sales period and limits we set with Cowen. Because the price per share of each share sold will fluctuate based on the market price of our common stock during the sales period, it is not possible at this stage to predict the number of shares that will be ultimately issued.

USE OF PROCEEDS

We intend to use the net proceeds from the sale of any common stock offered under this prospectus to fund the research, development and manufacturing of our product candidates, continue research activities related to advancing our NK cell therapy platform, increase our working capital, fund capital expenditures and for general corporate purposes.

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

DILUTION

If you invest in our common stock, 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 June 30, 2021 was approximately \$288.4 million, or approximately \$8.78 per share of common stock based upon 32,852,861 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 June 30, 2021.

After giving effect to the sale of our common stock in this offering in the aggregate amount of \$150,000,000 at an assumed offering price of \$38.76 per share, the last reported sale price of our common stock on The Nasdaq Global Select Market on August 9, 2021, and after deducting commissions and estimated offering expenses payable by us, our as adjusted net tangible book value as of June 30, 2021 would have been \$433.4 million, or \$11.80 per share of common stock. This represents an immediate increase in net tangible book value of \$3.02 per share to our existing stockholders and an immediate dilution in net tangible book value of \$26.96 per share to new investors in this offering.

The following table illustrates this calculation on a per share basis. The as adjusted information is illustrative only and will adjust based on the actual price to the public, the actual number of shares sold and other terms of the offering determined at the time shares of our common stock are sold pursuant to this prospectus. The as adjusted information assumes that all of our common stock in the aggregate amount of \$150,000,000 is sold at the assumed offering price of \$38.76 per share, the last reported sale price of our common stock on The Nasdaq Global Select Market on August 9, 2021. The shares sold in this offering, if any, will be sold from time to time at various prices.

Assumed public offering price per share		\$38.76
Net tangible book value per share as of June 30, 2021	\$8.78	
Increase in net tangible book value per share attributable to this offering	3.02	
As adjusted net tangible book value per share after giving effect to this offering		11.80
Dilution per share to new investors participating in this offering		\$26.96

The table and calculations above are based on 32,852,861 shares of our common stock outstanding as of June 30, 2021, and exclude the following:

- 4,293,442 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, at a weighted-average exercise price of \$18.82 per share;
- 2,178,588 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.

An increase of \$1.00 per share in the price at which the shares are sold from the assumed offering price of \$38.76 per share shown in the table above would increase our adjusted net tangible book value per share after the offering to \$11.83 per share and would increase the dilution in net tangible book value per share to new investors in this offering to \$27.93 per share, after deducting commissions and estimated aggregate offering expenses payable by us. A decrease of \$1.00 per share in the price at which the shares are sold from the assumed offering

price of \$38.76 per share shown in the table above would decrease our adjusted net tangible book value per share after the offering to \$11.77 per share and would decrease the dilution in net tangible book value per share to new investors in this offering to \$25.99 per share, after deducting commissions and estimated aggregate offering expenses payable by us. This information is supplied for illustrative purposes only.

To the extent that outstanding options are exercised, you will experience further dilution. In addition, we may choose to raise additional capital due to market conditions or strategic considerations even if we believe we have sufficient funds for our current or future operating plans. To the extent that additional capital is raised through the sale of equity or convertible debt securities, the issuance of such securities may result in further dilution to our stockholders.

PLAN OF DISTRIBUTION

We have entered into a Sales Agreement with Cowen, under which we may issue and sell from time to time up to \$150,000,000 of our common stock through Cowen as our sales agent. If authorized by us in writing, Cowen may purchase shares of our common stock as principal.

Sales, if any, of our common stock under the Sales Agreement may be made in ordinary brokers' transactions, to or through a market maker, on or through The Nasdaq Global Select Market or any other market venue where the securities may be traded, in the over-the-counter market, in block transactions, in privately negotiated transactions, or through a combination of any such methods of sale. The sales agent may also sell our common stock by any other method permitted by law.

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

The aggregate compensation payable to Cowen as sales agent equals 3% of the gross sales price of the shares sold through it pursuant to the Sales Agreement. We have also agreed to reimburse Cowen up to \$50,000 of Cowen's actual outside legal expenses incurred by Cowen in connection with this offering. We estimate that the total expenses of the offering payable by us, excluding commissions payable to Cowen under the Sales Agreement, will be approximately \$0.5 million.

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

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

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

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

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

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

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

LEGAL MATTERS

The validity of the shares of common stock being offered by this prospectus will be passed upon for us by O'Melveny & Myers LLP. Certain matters will be passed upon for Cowen 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, 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.

WHERE YOU CAN FIND ADDITIONAL 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 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 <u>Schedule 14A</u> 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 <u>May 13</u>, 2021 and <u>August 12, 2021</u>, respectively;
- our Current Reports on Form 8-K filed with the SEC on <u>January 13, 2021</u>, <u>January 19, 2021</u>, <u>May 6, 2021</u> (with respect to Item 1.01 only), <u>June 15, 2021</u> and <u>July 14, 2021</u> (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, 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), 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

\$150,000,000



Nkarta, Inc.

Common Stock

PROSPECTUS

COWEN

September 2, 2021