

The information in this preliminary prospectus supplement is not complete and may be changed. A registration statement relating to these securities has been filed with the Securities and Exchange Commission and is effective. This preliminary prospectus supplement and the accompanying prospectus are not an offer to sell these securities and they are not soliciting an offer to buy these securities in any jurisdiction where the offer or sale thereof is not permitted.

SUBJECT TO COMPLETION, DATED DECEMBER 20, 2022

PRELIMINARY PROSPECTUS
SUPPLEMENT
(To Prospectus dated September 14, 2022)

Ordinary Shares



IceCure Medical Ltd.

We are offering _____ ordinary shares, no par value, or the Ordinary Shares. We are offering all of the Ordinary Shares offered by this prospectus.

Our Ordinary Shares are traded on the Nasdaq Capital Market, or Nasdaq, under the symbol “ICCM.” On December 20, 2022, the last reported sale price of our Ordinary Shares on Nasdaq was \$ _____ per share. Our Ordinary Shares are also listed on the Tel Aviv Stock Exchange, or TASE, under the symbol “ICCM.”

On December 20, 2022, the aggregate market value of our Ordinary Shares held by non-affiliates was approximately \$43,987,398 based on 16,918,230 Ordinary Shares outstanding held by non-affiliates and a per share price of \$2.60 based on the closing sale price of our Ordinary Shares on December 20, 2022. During the 12 calendar months immediately prior to and including the date of this prospectus supplement we have not offered any securities pursuant to General Instruction I.B.5 on Form F-3.

We are an emerging growth company, as defined in the Jumpstart Our Business Startups Act of 2012, or the JOBS Act, and a “foreign private issuer”, as defined in Rule 405 under the U.S. Securities Act of 1933, as amended, or the Securities Act, and are eligible for reduced public company reporting requirements.

Additionally, we are a “controlled company” as defined under the Nasdaq Stock Market Listing Rules because our existing controlling shareholder, Epoch Partner Investments Limited, is able to exercise more than 50.0% of the total voting power of our issued and outstanding Ordinary Shares.

Investing in our securities involves a high degree of risk. See “Risk Factors” beginning on page S-4 of this prospectus supplement and in the documents that are incorporated by reference into this prospectus supplement and the accompanying prospectus.

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

We have retained A.G.P./Alliance Global Partners, or A.G.P. or the Placement Agent, to act as our lead placement agent in connection with the securities offered by this prospectus supplement. A.G.P. is not purchasing or selling any of these securities nor are they required to sell any specific number or dollar amount of securities, but has agreed to use its best efforts to sell the securities offered by this prospectus supplement. We have agreed to pay A.G.P. a cash fee equal to 7.0% of the aggregate gross proceeds raised in this offering as set forth in the table below.

	Per Share	Total
Public offering price	\$ _____	\$ _____
Placement Agent fees ⁽¹⁾⁽²⁾	\$ _____	\$ _____
Proceeds to us (before expenses)	\$ _____	\$ _____

(1) We refer you to “Plan of Distribution” for additional information regarding total placement agent compensation.

(2) In the case of certain identified investors, the placement agent fee will be 3.0% of the gross proceeds in this offering.

Epoch Partner Investments Limited has indicated an interest in purchasing an aggregate of up to \$ _____ million of Ordinary Shares in this offering at the public offering price. Because this indication of interest is not a binding agreement or commitment to purchase, Epoch Partner Investments Limited could determine to purchase more, fewer or no Ordinary Shares in this offering, or we could determine to sell more, fewer or no Ordinary Shares to Epoch Partner Investments Limited.

Delivery of the Ordinary Shares to purchasers offered pursuant to this prospectus supplement and the accompanying prospectus is expected to be made on or about December _____, 2022, subject to the satisfaction of certain closing conditions.

Lead Placement Agent

A.G.P.

Co-Placement Agent

Brookline Capital Markets

a division of Arcadia Securities, LLC

The date of this prospectus supplement is December _____, 2022

Prospectus Supplement

	Page
ABOUT THIS PROSPECTUS SUPPLEMENT	S-ii
CAUTIONARY NOTE REGARDING FORWARD LOOKING STATEMENTS	S-iii
PROSPECTUS SUPPLEMENT SUMMARY	S-1
THE OFFERING	S-3
RISK FACTORS	S-4

USE OF PROCEEDS	S-7
DIVIDEND POLICY	S-8
DILUTION	S-9
CAPITALIZATION	S-10
PLAN OF DISTRIBUTION	S-11
LEGAL MATTERS	S-13
EXPERTS	S-14
WHERE YOU CAN FIND MORE INFORMATION	S-15
INCORPORATION OF CERTAIN INFORMATION BY REFERENCE	S-16

Prospectus

ABOUT THIS PROSPECTUS	1
ABOUT OUR COMPANY	2
RISK FACTORS	3
CAUTIONARY NOTE REGARDING FORWARD-LOOKING STATEMENTS	4
CAPITALIZATION	5
USE OF PROCEEDS	6
DESCRIPTION OF SECURITIES	7
PLAN OF DISTRIBUTION	9
EXPENSES	11
LEGAL MATTERS	11
EXPERTS	11
ENFORCEABILITY OF CIVIL LIABILITIES	12
INCORPORATION OF CERTAIN INFORMATION BY REFERENCE	13
WHERE YOU CAN FIND ADDITIONAL INFORMATION	14

S-i

ABOUT THIS PROSPECTUS SUPPLEMENT

This prospectus supplement and the accompanying prospectus are part of a “shelf” registration statement on Form F-3 (File No. 333-267272) we filed with the SEC on September 2, 2022 and that was declared effective by the SEC on September 14, 2022. Under this “shelf” registration process, we may, from time to time, sell any combination of the securities described in the accompanying prospectus in one or more offerings up to a total amount of \$100,000,000. As of November 14, 2022, prior to the consummation of this offering, we have not sold any securities under the foregoing “shelf” registration statement. You should read this prospectus supplement, the accompanying prospectus, the documents incorporated by reference into this prospectus supplement and the accompanying prospectus, and any free writing prospectus that we may authorize for use in connection with this offering in their entirety before making an investment decision. You should also read and consider the information in the documents to which we have referred you in the section of this prospectus supplement entitled “Where You Can Find More Information” and “Incorporation by Reference.” These documents contain important information that you should consider when making your investment decision.

This document is in two parts. The first part is this prospectus supplement, which describes the specific terms of this offering and certain other matters and also adds to and updates information contained in the accompanying prospectus and the documents incorporated by reference herein or therein. The second part, the accompanying prospectus, including the documents incorporated by reference into the accompanying prospectus, provides more general information. Generally, when we refer to this prospectus, we are referring to the combined document consisting of this prospectus supplement and the accompanying prospectus. To the extent there is a conflict between the information contained in this prospectus supplement and the information contained in the accompanying prospectus or any document incorporated by reference herein or therein that was filed with the SEC before the date of this prospectus supplement, you should rely on the information in this prospectus supplement; provided that if any statement in one of these documents is inconsistent with a statement in another document having a later date—for example, a document incorporated by reference in the accompanying prospectus—the statement in the document having the later date modifies or supersedes the earlier statement.

In this prospectus supplement and the accompanying prospectus, “we,” “us,” “our,” the “Company” and “IceCure” refer to IceCure Medical Ltd. and its wholly owned subsidiaries, IceCure Medical Inc., a Delaware corporation, IceCure Medical HK Limited, a Hong Kong corporation, and IceCure (Shanghai) MedTech Co., Ltd., a subsidiary of IceCure Medical HK Limited.

All trademarks or trade names referred to in this prospectus supplement and the accompanying prospectus are the property of their respective owners. Solely for convenience, the trademarks and trade names in this prospectus are referred to without the ® and ™ symbols, but such references should not be construed as any indicator that their respective owners will not assert, to the fullest extent under applicable law, their rights thereto. We do not intend the use or display of other companies’ trademarks and trade names to imply a relationship with, or endorsement or sponsorship of us by, any other companies.

This prospectus supplement and the accompanying prospectus includes statistical, market and industry data and forecasts which we obtained from publicly available information and independent industry publications and reports that we believe to be reliable sources. These publicly available industry publications and reports generally state that they obtain their information from sources that they believe to be reliable, but they do not guarantee the accuracy or completeness of the information. Although we believe that these sources are reliable, we have not independently verified the information contained in such publications.

Our reporting currency and functional currency is the U.S. dollar. Unless otherwise expressly stated or the context otherwise requires, references in this prospectus supplement and the accompanying prospectus to “NIS” are to New Israeli Shekels, and references to “dollars” or “\$” are to U.S. dollars.

We report our financial statements in accordance with generally accepted accounting principles in the United States, or U.S. GAAP.

We are not making offers to sell or solicitations to buy our Ordinary Shares in any jurisdiction in which an offer or solicitation is not authorized or in which the person making that 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 assume that the information in this prospectus supplement, the accompanying prospectus or any related free writing prospectus is accurate only as of the date on the front of the document and that any information that we have incorporated by reference is accurate only as of the date of the document incorporated by reference, regardless of the time of delivery of this prospectus supplement or any related free writing prospectus, or any sale of securities.

S-ii

This prospectus supplement, the accompanying prospectus and the other documents we have filed with the SEC that are incorporated herein by reference contain forward-looking statements that involve substantial risks and uncertainties. Any statements, other than statements of historical facts, contained in this prospectus supplement, the accompanying prospectus or the information incorporated by reference herein or therein may be deemed to be forward-looking statements. In some cases, these forward-looking statements can be identified by the use of forward-looking terminology, including the terms “may,” “will,” “could,” “should,” “expect,” “anticipate” “objective,” “goal,” “intend,” “estimate,” “believe,” “project,” “plan,” “assume” or, in each case, their negative or other variations thereon or comparable terminology, although not all forward-looking statements contain these words. Such forward-looking statements include statements about our intentions, beliefs, projections, outlook, analyses or current expectations concerning, among other things, our objectives, plans and strategies, statements relating to the research, development, completion, regulatory approval and use of our products, statements that contain projections of results of operations or of financial condition, expected capital needs and expenses and all statements (other than statements of historical facts) that address activities, events or developments that we intend, expect, project, believe or anticipate will or may occur in the future.

By their nature, forward-looking statements involve risks and uncertainties because they relate to events, competitive dynamics, and healthcare, regulatory and scientific developments and depend on the economic circumstances that may or may not occur in the future or may occur on longer or shorter timelines than anticipated. Although we believe that we have a reasonable basis for each forward-looking statement contained in this prospectus supplement, we caution you that forward-looking statements are not guarantees of future performance and they may not be predictive of results or developments in future periods.

Forward-looking statements involve risks and uncertainties that could cause actual results or outcomes to differ materially from those expressed therein. We express our estimates, expectations, beliefs, and projections in good faith and believe them to have a reasonable basis. However, we make no assurances that management’s estimates, expectations, beliefs, or projections will be achieved or accomplished. We have identified the following important factors that could cause actual results to differ materially from those discussed in our forward-looking statements including, among other things:

- our planned level of revenues and capital expenditures;
- our available cash our ability to obtain additional funding;
- our ability to market and sell our products;
- regulatory developments in the United States and other countries;
- our plans to continue to invest in research and development to develop technology for both existing and new products;
- our ability to maintain our relationships with suppliers, manufacturers and other partners;
- our ability to maintain or protect the validity of our European, U.S. and other patents and other intellectual property;
- our ability to internally develop and protect new inventions and intellectual property;
- our ability to retain key executive members;
- our ability to reach and educate physicians and other medical professionals about the use cases of our products;
- our expectations regarding our tax classifications;
- interpretations of current laws and the passages of future law;
- the impact of COVID-19 and resulting government actions on us, our manufacturers, suppliers and facilities in which our ProSense system is used or in which our products are undergoing trials; and
- the risk factors included in this prospectus supplement beginning on page S-4 and the risk factors referred to in our most recent Annual Report on Form 20-F in “Item 3. Key Information – D. Risk Factors,” “Item 4. Information on the Company,” and “Item 5. Operating And Financial Review and Prospects,” as well as generally in our most recent Annual Report on Form 20-F, as amended, which is incorporated by reference into this prospectus supplement and the accompanying prospectus.

These statements are only current predictions and are subject to known and unknown risks, uncertainties, and other factors that may cause our or our industry’s actual results, levels of activity, performance or achievements to be materially different from those anticipated by the forward-looking statements. You should not rely upon forward-looking statements as predictions of future events. Except as required by law, we are under no duty to update or revise any of the forward-looking statements, whether as a result of new information, future events or otherwise, after the date of this prospectus supplement.

PROSPECTUS SUPPLEMENT SUMMARY

This summary highlights information contained elsewhere or incorporated by reference 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 that you should consider before deciding to invest in our securities. You should read this entire prospectus supplement and the accompanying prospectus carefully, including the “Risk Factors” section contained in this prospectus supplement and our consolidated financial statements and the related notes and the other documents incorporated by reference herein, as well as the information included in any free writing prospectus that we have authorized for use in connection with this offering.

Our Business

We are a commercial stage medical device company focusing on the research, development and marketing of cryoablation systems and technologies based on liquid nitrogen, or LN₂, for treating tumors. Cryoablation is the process by which benign and malignant tumors are ablated (destroyed) through freezing such tumors while in a patient’s body. Our proprietary cryoablation technology is a minimally invasive alternative to surgical intervention, for tumors, including those found in breast, lungs, kidneys, bones and other indications. Our lead commercial cryoablation product is the ProSense system.

In addition to our existing lead product, the ProSense system, a single probe system, we have developed an additional multi probe system that is expected to have the ability to freeze several tumors simultaneously or larger tumors, which we refer to as our MultiSense system, which has not been commercialized. In our continued efforts aimed at improving our core technology, we are currently focusing on developing our next generation MultiSense system, which we intend to commercialize subject to regulatory approvals. We are also in the process of developing our next generation single probe system. While these next generation systems are still in various research and development stages, we expect them to be more efficient and user friendly.

Recent Developments

De Novo Classification Request with the FDA

On October 19, 2022, we submitted a De Novo Classification Request regulatory filing with the U.S. Food and Drug Administration, or FDA, for marketing authorization based on our ICE3 clinical trial interim analysis of ProSense for the indication of early-stage (Luminal A T1 invasive) low-risk breast cancer in patients who are at high risk to surgery (not suitable for surgical alternatives), representing approximately 43,000 women in the U.S. annually. The specific indication filed is based on interim data from our ICE3 trial and is in accordance with discussions we have had with the FDA, which granted ProSense Breakthrough Device Designation on March 31, 2021, enabling closer communications regarding its regulatory filing.

Final ICE3 5-year follow-up data are expected in the first half of 2024, at which time we plan to file with the FDA for a broader indication reflecting the entire study population—early-stage (Luminal A T1 invasive) low-risk breast cancer for patients age 60 and over, representing approximately 65,000 women in the U.S. annually.

ICE3 is the largest controlled multi-location clinical trial ever performed for liquid nitrogen based cryoablation of small, low-risk, early-stage malignant breast tumors without subsequently removing them. The trial began in 2014 and has completed recruitment of 206 patients (of which 194 were eligible for cryoablation) in 19 hospitals and medical centers across the U.S., including Columbia University Medical Center and Mount Sinai Beth Israel.

S-1

Assignment of CPT Category III Code for Breast Cancer Cryoablation Procedures

On November 1, 2022, the U.S. Centers for Medicare & Medicaid Services, or CMS, assigned our ProSense breast cancer cryoablation procedures with CPT Category III code 0581T to ambulatory payment classification 5091, Level 1 Breast/Lymphatic Surgery and Related Procedures. This payment assignment for the procedure will go into effect on January 1, 2023, opening the potential for facilities to be paid, on a case-by-case basis, for these procedures subject to our receipt of FDA marketing authorization of ProSense for breast cancer.

Under the temporary CPT Category III code, the ProSense procedure is priced for coverage by the CMS at approximately \$3,400 for the facility fee alone. Additional coverage, including payment for the physician, is expected upon establishment of the permanent CPT Category I code, which is conditioned on several factors including our receipt of FDA marketing authorization of ProSense for breast cancer.

ICESECRET Interim Study Results

On December 19, 2022, we announced interim results data from our ICESECRET study for the treatment of patients with small renal masses (“SRM”) who cannot be offered kidney-preserving surgery. Data were presented on December 14, 2022 at the Urological Association Conference in Eilat, Israel. The presentation titled “Renal Mass Cryoablation - Interim Analysis ICESECRET Study” was delivered by Dr. Nasir Said of Bnai Zion Medical Center.

According to the presentation, out of the 115 patients enrolled, 107 patients (112 lesions) returned for follow-up with a mean duration of 22.8 months and a range 12-60 months. In a subgroup of patients with no previous history of kidney cancer on the same kidney and a lesion ≤ 3 cm, an 89.5% recurrence-free rate was observed at a mean follow-up time of 22.2 months when the procedure protocol was followed. The recurrence-free rate was 85.1% for the 107 patients (91 patients, including 13 patients who underwent a second cryoablation), at a mean follow-up period of 16.5 months. Five serious adverse events were reported, four of which were of mild severity and were treated conservatively and resolved within one to five days, with one severe complication of a new onset of ipsilateral hydronephrosis seven months after the cryoablation procedure that led to nephrectomy. Cryoablation time and hospitalization time were relatively short, up to approximately 25 minutes and two days, respectively. The presentation concluded that, based on these interim results, cryoablation is safe and effective for treating renal masses under five cm.

According to the American Journal of Roentgenology, small renal masses, which may be malignant or benign tumors in the kidney, have been rising in incidence over the past two decades. According to the American Cancer Society, in 2022, in the U.S., an estimated 79,000 new cases of kidney cancer will be diagnosed, with about 14,000 dying from the disease. Globally, there were more than 430,000 new cases of kidney cancer in 2020 and about 180,000 deaths according to World Cancer Research Fund International.

ICESECRET, a prospective, multicenter, single-arm clinical trial is being performed at Bnai-Zion Medical Center, Haifa, Israel, and Shamir Medical Center, Zerifin, Israel, and led by Principal Investigator Prof. Halahmi Sarel. The trial included 115 patients (138 lesions) with localized SRM of ≤ 5 cm who were treated with ProSense cryoablation under CT guidance. Full engulfment of the renal lesion, including a safety margin of 0.5 cm was achieved in approximately 96% of the procedures where there was no anatomical limitation. Follow-up visits are performed six weeks, six months, one year, and then annually up to five years after the procedure. During the follow-up visits, data related to local recurrence, based on CT imaging, is collected. Safety was determined by monitoring procedure-related adverse events throughout the study.

Company Information

We are an Israeli corporation based in Caesarea, Israel and were incorporated in Israel in 2006. On February 2, 2011, we became a public company in Israel and our Ordinary Shares were listed for trade on the TASE. On August 26, 2021, our Ordinary Shares were listed for trade on Nasdaq. Our principal executive offices are located at 7 Ha'Eshel St., PO Box 3163, Caesarea, 3079504 Israel. Our telephone number in Israel is +972-4-6230333. Our website address is <http://www.icecure-medical.com>. The information contained on, or that can be accessed through, our website is not part of this prospectus supplement. We have included our website address in this prospectus supplement solely as an inactive textual reference.

S-2

The Offering

Ordinary Shares offered by us	shares.
Ordinary Shares to be outstanding immediately after this offering	Ordinary Shares.
Offering price	\$ per share.

Use of proceeds	We intend to use the net proceeds from this offering to fund the development of our next generation single Probe and MultiSense systems, collecting clinical data and adding regulatory approvals in new territories and indications, business development, marketing and selling activities as well as for working capital and general corporate purposes. See “Use of Proceeds” on page S-7 of this prospectus supplement for a more complete description of the intended use of proceeds from this offering.
Risk factors	Investing in our Ordinary Shares involves significant risks. Please read the information contained in or incorporated by reference under the heading “Risk Factors” beginning on page S-4 of this prospectus supplement, and under similar headings in documents that are filed after the date hereof and incorporated by reference into this prospectus supplement and the accompanying prospectus.
Nasdaq symbol	Our Ordinary Shares are listed on Nasdaq under the symbol “ICCM.”
TASE symbol	“ICCM.”

The number of the Ordinary Shares to be outstanding immediately after this offering as shown above assumes that all of the Ordinary Shares offered hereby are sold and is based on 36,835,554 Ordinary Shares outstanding as of December 20, 2022. This number excludes 3,113,436 Ordinary Shares issuable upon the exercise of options to directors, employees and consultants under our 2006 Employee Share Option Plan, or ESOP, outstanding as of December 20, 2022, at a weighted average exercise price of \$2.44, of which 1,059,815 were exercisable as of December 20, 2022.

S-3

RISK FACTORS

Investment in our Ordinary Shares involves risks. Before deciding whether to invest in our Ordinary Shares, you should consider carefully the risk factors discussed below and those contained in the section entitled “Item 3. Key Information - D. Risk Factors” contained in our most recent Annual Report on Form 20-F as well as any amendment or update to our risk factors reflected in our subsequent filings with the SEC. If any of the risks or uncertainties described in our SEC filings actually occurs, our business, financial condition, results of operations or cash flow could be materially and adversely affected. This could cause the trading price of our Ordinary Shares to decline, resulting in a loss of all or part of your investment. The risks and uncertainties we have described are not the only ones we face. Additional risks and uncertainties not presently known to us or that we currently deem immaterial may also affect our business operations. The discussion of risks includes or refers to forward-looking statements; you should read the explanation of the qualifications and limitations on such forward-looking statements discussed elsewhere in this prospectus supplement and the accompanying prospectus.

Risks Related to this Offering

The market price of our Ordinary Shares may be highly volatile and fluctuate substantially, which could result in substantial losses for purchasers of our Ordinary Shares in this offering.

The trading price of our Ordinary Shares may be volatile. As a result of this volatility, you may not be able to sell the Ordinary Shares at or above the public offering price. The market price for the Ordinary Shares may be influenced by many factors, including:

- inability to obtain the approvals necessary to commence further clinical trials;
- unsatisfactory results of clinical trials;
- announcements of regulatory approval or the failure to obtain it, or specific label indications or patient populations for its use, or changes or delays in the regulatory review process;
- announcements of therapeutic innovations or new products by us or our competitors;
- adverse actions taken by regulatory authorities with respect to our clinical trials, manufacturing supply chain or sales and marketing activities;
- changes or developments in laws or regulations applicable to the cryoablation of tumors or any other indication that we may seek to develop;
- any adverse changes to our relationship with manufacturers or suppliers;
- any intellectual property infringement actions in which we may become involved;
- announcements concerning our competitors or the biotechnology industry in general;
- our involvement in litigation;
- any major changes in our board of directors or management;
- our ability to recruit and retain qualified regulatory, research and development personnel;

S-4

- legislation or changes to healthcare payment systems;
- the depth of the trading market in our Ordinary Shares;
- termination or expiration of the lock-up agreements or other restrictions limiting our ability or that of any of our existing shareholders to sell our Ordinary Shares (or any other securities that we may issue, if any) after this offering;

- general economic weakness, including inflation, or industry and market conditions;
- business interruptions resulting from an epidemic or pandemic, such as COVID-19, geopolitical actions, including war and terrorism, or natural disasters;
- the granting or exercise of employee stock options or other equity awards; and
- changes in investors' and securities analysts' perception of the business risks and conditions of our business.

In addition, the stock market in general, and the Nasdaq Stock Market in particular, have experienced extreme price and volume fluctuations that have often been unrelated or disproportionate to the operating performance of small companies. Broad market and industry factors may negatively affect the market price of our Ordinary Shares, regardless of our actual operating performance. Further, a systemic decline in the financial markets and related factors beyond our control may cause our share price to decline rapidly and unexpectedly.

You will experience immediate and substantial dilution in the book value per share of the Ordinary Shares you purchase in the offering.

You will incur immediate and substantial dilution as a result of this offering. The public offering price per share of our Ordinary Shares offered pursuant to this prospectus supplement is substantially higher than the net tangible book value per share. Accordingly, at the public offering price of \$ per share, purchasers of Ordinary Shares in this offering will experience immediate dilution of \$ per share in as adjusted net tangible book value of the Ordinary Shares. In addition, as of December 20, 2022, there were 3,113,436 Ordinary Shares subject to outstanding options at a weighted average exercise price per share of \$2.44. To the extent that additional Ordinary Shares are issued upon exercise of these outstanding options to purchase additional Ordinary Shares, you will incur further dilution. See "Dilution" for a more detailed discussion of the dilution you will incur if you purchase Ordinary Shares in this offering.

Future sales or other issuances of our Ordinary Shares could depress the market for our Ordinary Shares.

Sales of a substantial number of Ordinary Shares, or the perception by the market that those sales could occur, could cause the market price of our Ordinary Shares to decline or could make it more difficult for us to raise funds through the sale of equity in the future.

In connection with this offering, we, and our directors and executive officers, have entered into lock-up agreements for a period of 90 days following this offering. We and our directors and executive officers may be released from lock-up prior to the expiration of the lock-up period at the sole discretion of the representative. See "Plan of Distribution" beginning on page S-11 of this prospectus supplement. Upon expiration or earlier release of the lock-up, we and our directors and executive officers may sell shares into the market, which could adversely affect the market price of our Ordinary Shares.

Future issuances of Ordinary Shares or any securities that are exercisable for or convertible into Ordinary Shares could further depress the market for our Ordinary Shares, may have an adverse effect on the market price of our Ordinary Shares and will have a dilutive effect on our existing shareholders and holders of Ordinary Shares. We expect to continue to incur research and development and general and administrative expenses and, to satisfy our funding requirements, we will need to sell additional equity securities, which may include sales of significant amounts of Ordinary Shares, which may be subject to registration rights and warrants with anti-dilutive protective provisions. The sale or the proposed sale of substantial amounts of our Ordinary Shares or other equity securities in the public markets or in private transactions may adversely affect the market price of our Ordinary Shares and our share price may decline substantially.

Our principal shareholders, officers and directors currently beneficially own approximately 57% of our Ordinary Shares. They will therefore be able to exert significant control over matters submitted to our shareholders for approval.

As of the date of this prospectus, our principal shareholders, officers and directors beneficially own approximately 57% of our Ordinary Shares. This significant concentration of share ownership may adversely affect the trading price for our Ordinary Shares because investors often perceive disadvantages in owning shares in companies with controlling shareholders. As a result, these shareholders, if they acted together, could significantly influence or even unilaterally approve matters requiring approval by our shareholders, including the election of directors and the approval of mergers or other business combination transactions. The interests of these shareholders may not always coincide with our interests or the interests of other shareholders.

Because we are a "controlled company" within the meaning of the Nasdaq Stock Market rules, our shareholders may not have certain corporate governance protections that are available to shareholders of companies that are not controlled companies.

So long as more than 50% of the voting power for the election of directors is held by an individual, a group or another company, we will qualify as a "controlled company" within the meaning of the Nasdaq Stock Market rules. As of the date of this prospectus, Epoch Partner Investments Limited controls approximately 53.7% of the combined voting power of our outstanding capital stock. As a result, we are a "controlled company" within the meaning of the Nasdaq Stock Market rules and are not subject to the requirements that would otherwise require us to have: (i) a majority of independent directors; (ii) a nominating committee comprised solely of independent directors; (iii) compensation of our executive officers determined by a majority of the independent directors or a compensation committee comprised solely of independent directors; and (iv) director nominees selected, or recommended for the board of directors selection, either by a majority of the independent directors or a nominating committee comprised solely of independent directors. As of the date of this prospectus, we do not intend to take advantage of the exemptions from the Nasdaq Stock Market corporate governance listing requirements available to a "controlled company". However, should we later choose to do so, you may not have the same protections afforded to stockholders of companies that are subject to all of these corporate governance requirements.

Participation in this offering by our affiliates would reduce the available public float of our Ordinary Shares.

An existing shareholder has indicated an interest in purchasing Ordinary Shares in this offering at the public offering price. However, because indications of interest are not binding agreements or commitments to purchase, we could determine to sell more, fewer or no Ordinary Shares such potential purchaser, and such potential purchaser could determine to purchase more, fewer or no Ordinary Shares in this offering. Moreover, no guarantee will be or has been given by us or any of the placement agents as to the final allocation to any of the aforementioned shareholder or other persons, that any allocation will be made to them, or as to the size of any such allocation. To the extent such shareholder and its affiliated entities participate in this offering, such purchases would reduce the non-affiliate public float for our Ordinary Shares, meaning the number of Ordinary Shares that are not held by officers, directors and controlling shareholders. A reduction in the public float could reduce the number of Ordinary Shares that are available to be traded at any given time, thereby adversely impacting the liquidity of our Ordinary Shares and depressing the price at which you may be able to sell Ordinary Shares purchased in this offering.

Management will have broad discretion as to the use of the proceeds from this offering, and we may not use the proceeds effectively.

Our management will have broad discretion in the allocation of the net proceeds and could use them for purposes other than those contemplated at the time of this offering and as described in the section titled "Use of Proceeds." Our management could spend the proceeds in ways that you do not agree with or that do not improve our results of operations or enhance the value of our Ordinary Shares.

We have never paid cash dividends on our share capital, and we do not anticipate paying any cash dividends in the foreseeable future.

We have never declared or paid cash dividends, and we do not anticipate paying cash dividends in the foreseeable future. Therefore, you should not rely on an investment in Ordinary Shares as a source for any future dividend income. Our board of directors has complete discretion as to whether to distribute dividends. Even if our board of directors decides to declare and pay dividends, the timing, amount and form of future dividends, if any, will depend on our future results of operations and cash flow, our capital requirements and surplus, the amount of distributions, if any, received by us from our subsidiaries, our financial condition, contractual restrictions and other factors deemed relevant by our board of directors. In addition, the Israeli Companies Law, 5759-1999, or the Companies Law, imposes restrictions on our ability to declare and pay dividends. See “Dividend Policy.”

Raising additional capital may cause dilution to our existing shareholders and may adversely affect the rights of existing shareholders.

We may need to raise additional capital through a combination of private and public equity offerings, debt financings and collaborations, and strategic and licensing arrangements. To the extent that we raise additional capital through the issuance of equity (such as this offering) or otherwise including through convertible debt securities, your ownership interest will be diluted, and the terms may include liquidation or other preferences that adversely affect your rights as a shareholder. Debt financing, if available, may involve agreements that include covenants limiting or restricting our ability to take certain actions, such as incurring debt, making capital expenditures or declaring dividends. If we raise additional funds through strategic partnerships and alliances and licensing arrangements with third parties, we may have to relinquish valuable rights to our technologies or product candidates or grant licenses on terms that are not favorable to us. If we are unable to raise additional funds through equity or debt financing when needed, we may be required to delay, limit, reduce or terminate our product development or commercialization efforts or grant rights to develop and market product candidates that we would otherwise prefer to develop and market ourselves. Future sales of our Ordinary Shares or of securities convertible into our Ordinary Shares, or the perception that such sales may occur, could cause immediate dilution and adversely affect the market price of our Ordinary Shares.

S-6

USE OF PROCEEDS

We estimate the net proceeds to us from the sale of the Ordinary Shares offered by us in this offering will be approximately \$ million after deducting the estimated offering expenses.

We currently expect to use the net proceeds from this offering for the following purposes:

- approximately \$ million to continue the development of our next generation single Probe and MultiSense systems, collecting clinical data and adding regulatory approvals in new territories and indications;
- approximately \$ million for business development, marketing and selling activities; and
- the remainder for working capital and general corporate purposes.

Changing circumstances may cause us to consume capital significantly faster than we currently anticipate. The amounts and timing of our actual expenditures will depend upon numerous factors, including the progress of our global marketing and sales efforts, the development of our products and the overall economic environment. Therefore, our management will retain broad discretion over the use of the proceeds from this offering. We may ultimately use the proceeds for different purposes than what we currently intend. Pending any ultimate use of any portion of the proceeds from this offering, if the anticipated proceeds will not be sufficient to fund all the proposed purposes, our management will determine the order of priority for using the proceeds, as well as the amount and sources of other funds needed.

The amounts and timing of our actual expenditures will depend upon numerous factors, including the timing, scope, progress and results of our research and development efforts, timing and progress of our clinical trials, regulatory and competitive environment and other factors that management believes are appropriate.

Pending our use of the net proceeds from this offering, we may invest the net proceeds in a variety of capital preservation investments, including short-term, investment grade, interest bearing instruments and U.S. government securities.

S-7

DIVIDEND POLICY

We have never declared or paid any cash dividends on our Ordinary Shares and do not anticipate paying any cash dividends in the foreseeable future. Payment of cash dividends, if any, in the future will be at the discretion of our board of directors and will depend on then-existing conditions, including our financial condition, operating results, contractual restrictions, capital requirements, business prospects and other factors our board of directors may deem relevant.

The Companies Law imposes further restrictions on our ability to declare and pay dividends. Under the Companies Law, we may declare and pay dividends only if, upon the determination of our board of directors, there is no reasonable concern that the distribution will prevent us from being able to meet the terms of our existing and foreseeable obligations as they become due. Under the Companies Law, the distribution amount is further limited to the greater of retained earnings or earnings generated over the two most recent years legally available for distribution according to our then last reviewed or audited financial statements, provided that the end of the period to which the financial statements relate is not more than six months prior to the date of distribution. In the event that we do not meet such earnings criteria, we may seek the approval of a court in order to distribute a dividend. The court may approve our request if it is convinced that there is no reasonable concern that the payment of a dividend will prevent us from satisfying our existing and foreseeable obligations as they become due.

S-8

DILUTION

If you invest in our Ordinary Shares, your interest will be diluted immediately to the extent of the difference between the public offering price per Ordinary Share you will pay in this offering and the *pro forma* net tangible book value per Ordinary Share after this offering. As of September 30, 2022, we had a net tangible book value of \$15.3 million, corresponding to a net tangible book value of \$0.41 per Ordinary Share. Net tangible book value per Ordinary Share represents the amount of our total tangible assets less our total liabilities, divided by 36,835,554, the total number of Ordinary Shares issued and outstanding on September 30, 2022.

After giving effect to the sale of the Ordinary Shares offered by us in this offering at the public offering price of \$ per Ordinary Share, and after deducting the estimated and estimated offering expenses payable by us, our *pro forma* net tangible book value estimated at September 30, 2022 would have been approximately \$ million, representing \$ per Ordinary Share. This represents an immediate increase in historical net tangible book value of \$ per Ordinary Share to existing shareholders and an immediate dilution in net tangible book value of \$ per Ordinary Share to purchasers of Ordinary Shares in this offering. Dilution for this purpose represents the difference between the price per Ordinary Share paid by these purchasers and *pro forma* net tangible book value per Ordinary Share immediately after the completion of this offering.

The following table illustrates this dilution on a per Ordinary Share basis to purchasers of Ordinary Shares in this offering:

Public offering price per Ordinary Share	\$	
Net tangible book value per Ordinary Share as of September 30, 2022	\$	0.41
Increase in <i>pro forma</i> net tangible book value per Ordinary Share attributable to this offering	\$	
<i>Pro forma</i> net tangible book value per Ordinary Share after this offering	\$	
Dilution per Ordinary Share to new investors	\$	
Percentage of dilution in net tangible book value per Ordinary Share for new investors		%

The number of Ordinary Shares purchased from us by existing shareholders is based on 36,835,554 Ordinary Shares issued and outstanding as of September 30, 2022, and excludes:

- 3,113,436 Ordinary Shares issuable upon the exercise of options to directors, employees and consultants under our ESOP, outstanding as of September 30, 2022, at a weighted average exercise price of \$2.38, of which 1,031,802 were exercisable as of September 30, 2022; and
- 2,139 Ordinary Shares issuable upon the exercise of warrants to directors, employees and consultants, outstanding as of September 30, 2022, at a weighted average exercise price of \$2.26.

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

S-9

CAPITALIZATION

The following table sets forth our cash and cash equivalents and our capitalization as of September 30, 2022:

- on an actual basis; and
- on an as adjusted basis to give effect to the sale of Ordinary Shares in this offering at the public offering price of \$ per Ordinary Share, after deducting estimated offering expenses payable by us, as if the sale of the Ordinary Shares had occurred on September 30, 2022.

You should read this table in conjunction with our audited financial statements and notes thereto included in our Annual Report on Form 20-F for our fiscal year ended December 31, 2021 filed with the SEC on April 1, 2022, as amended by our Form 20-F/A filed with the SEC on August 22, 2022, and our unaudited interim condensed consolidated financial information as of and for the nine months ended September 30, 2022, furnished with the SEC on December 5, 2022, which are incorporated by reference herein.

<i>U.S. dollars in thousands (Unaudited)</i>	As of September 30, 2022	
	Actual	As Adjusted
Cash and cash equivalents	\$ 12,437	
Short time deposits	1,756	
Shareholders' equity:		
Additional paid-in capital	86,743	
Accumulated deficit	(71,457)	
Total shareholders' equity	15,286	
Total capitalization	\$ 29,479	

S-10

PLAN OF DISTRIBUTION

The placement agents have agreed to act as our exclusive placement agents in connection with this offering subject to the terms and conditions of the placement agent agreement dated , 2022, or the Placement Agent Agreement. The placement agents are not purchasing or selling any of the Ordinary Shares offered by this prospectus supplement, nor are they required to arrange the purchase or sale of any specific number or dollar amount of Ordinary Shares, but have agreed to use their best efforts to arrange for the sale of all of the Ordinary Shares. We have entered into a securities purchase agreement directly with the investors in connection with this offering. The securities purchase agreement contains customary representations, warranties and covenants. The offering is expected to close on or about , 2022, subject to customary closing conditions.

Fees and Expenses

We have agreed to pay the placement agents an aggregate fee equal to approximately \$, or 7.0% of the aggregate purchase price of the Ordinary Shares sold in this offering, which will be reduced to 3.0% in connection with sales to certain investors. The following table shows the total cash placement agents' fees we will pay per Ordinary Share to the placement agents in connection with the sale of the securities offered pursuant to this prospectus supplement and the accompanying prospectus, assuming the purchase of all of the securities offered hereby on a best efforts basis:

	Per Ordinary Share
Public offering price	\$
Placement agent fees ⁽¹⁾	\$
Proceeds, before expenses, to us	\$

(1) The Placement Agents shall receive a fee of \$ per Ordinary Share in connection with sales to certain investors.

We will also reimburse the Placement Agent \$50,000 for accountable expenses and \$10,000 for non-accountable expenses. We estimate the total expenses payable by us for this offering, excluding the Placement Agents' fees and expenses, will be approximately \$

Regulation M

The placement agents may be deemed to be underwriters within the meaning of Section 2(a)(11) of the Securities Act and any commissions received by them and any profit realized on the resale of the securities sold by them while acting as principals might be deemed to be underwriting discounts or commissions under the Securities Act. As underwriters, the placement agents would be required to comply with the requirements of the Securities Act and the Securities Exchange Act of 1934, as amended, or the Exchange Act, including, without limitation, Rule 415(a)(4) under the Securities Act and Rule 10b-5 and Regulation M under the Exchange Act. These rules and regulations may limit the timing of purchases and sales of our securities by the placement agents acting as principal. Under these rules and regulations, the placement agents:

- may not engage in any stabilization activity in connection with our securities; and
- may not bid for or purchase any of our securities or attempt to induce any person to purchase any of our securities, other than as permitted under the Exchange Act, until they have completed their participation in the distribution.

Indemnification

We have agreed to indemnify the placement agents and specified other persons against certain liabilities relating to or arising out of the placement agents' activities under the Placement Agent Agreement and to contribute to payments that the placement agents may be required to make in respect of such liabilities.

S-11

Lock-Up Agreements

Our directors and officers have entered into lock-up agreements. Under these agreements, these individuals agreed, subject to specified exceptions, not to sell or transfer any of our Ordinary Shares or securities convertible into, or exchangeable or exercisable for, Ordinary Shares during a period ending 90 days after the completion of this offering, without first obtaining at least the written consent of A.G.P. Specifically, these individuals agreed, in part, subject to certain exceptions, not to:

- offer for sale, sell, pledge, or otherwise transfer or dispose of (or enter into any transaction or device that is designed to, or could be expected to, result in the transfer or disposition by any person at any time in the future of) any Ordinary Shares or securities convertible into or exercisable or exchangeable for Ordinary Shares;
- enter into any swap or other derivatives transaction that transfers to another, in whole or in part, any of the economic benefits or risks of ownership of Ordinary Shares; or
- make any demand for or exercise any right or cause to be filed a registration statement, including any amendments thereto, with respect to the registration of any of our securities.

No Sales of Similar Securities

We have agreed, subject to certain exceptions, not to issue, enter into any agreement to issue or announce the issuance or proposed issuance of, any Ordinary Shares (or securities convertible into or exercisable for Ordinary Shares) or, subject to certain exceptions, file any registration statement, including any amendments or supplements thereto (other than the prospectus supplement, registration statement or amendment to the registration statement relating to the securities offered hereunder and a registration statement on Form S-8), until 90 days after the completion of this offering.

Listing

Our Ordinary Shares are listed on The Nasdaq Capital Market under the symbol "ICCM."

Transfer Agent and Registrar

We have appointed Vstock Transfer, LLC as the transfer agent and registrar for our Ordinary Shares.

Other Activities and Relationships

The placement agents and certain of their affiliates are full service financial institutions engaged in various activities, which may include securities trading, commercial and investment banking, financial advisory, investment management, investment research, principal investment, hedging, financing and brokerage activities. The placement agents and certain of their affiliates have, from time to time, performed and may in the future perform, various commercial and investment banking and financial advisory services for us and our affiliates, for which they received or will receive customary fees and expenses.

In the ordinary course of their various business activities, the placement agents and certain of 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, and such investment and securities activities may involve securities and/or instruments issued by us and our affiliates. If the placement agents or their affiliates have a lending relationship with us, they routinely hedge their credit exposure to us consistent with their customary risk management policies. The placement agents and their affiliates may hedge such exposure by entering into transactions that consist of either the purchase of credit default swaps or the creation of short positions in our securities or the securities of our affiliates, including potentially the Ordinary Shares offered hereby. Any such short positions could adversely affect future trading prices of the Ordinary Shares offered hereby. The placement agents and certain of their affiliates may also communicate independent recommendations, market color or trading ideas and/or publish or express independent research views in respect of such securities or instruments and may at any time hold, or recommend to clients that they acquire, long and/or short positions in such securities and instruments.

LEGAL MATTERS

Certain legal matters concerning this offering will be passed upon for us by Sullivan & Worcester LLP, New York, New York. Certain legal matters with respect to the legality of the issuance of the securities offered by this prospectus and other legal matters concerning this offering relating to Israeli law will be passed upon for us by Sullivan & Worcester Tel-Aviv (Har-Even & Co.), Tel Aviv, Israel. Certain legal matters related to the offering will be passed upon for the placement agents by Thompson Hine LLP, New York, New York.

EXPERTS

The financial statements as of December 31, 2021 and 2020 and for each of the three years in the period ended December 31, 2021 incorporated in this prospectus supplement by reference to our Annual Report on Form 20-F, as amended, have been so included in reliance upon the report of Brightman Almagor Zohar & Co., a firm in the Deloitte Global Network, an independent registered public accounting firm, given on the authority of said firm as experts in auditing and accounting.

WHERE YOU CAN FIND ADDITIONAL INFORMATION

We are an Israeli company and are a “foreign private issuer” as defined in Rule 3b-4 under the Exchange Act. As a foreign private issuer, we are exempt from the rules under the Exchange Act related to the furnishing and content of proxy statements, and our officers, directors and principal shareholders are exempt from the reporting and short-swing profit recovery provisions contained in Section 16 of the Exchange Act.

In addition, we are not required under the Exchange Act to file annual, quarterly and current reports and financial statements with the SEC as frequently or as promptly as U.S. companies whose securities are registered under the Exchange Act. However, we file with the SEC, within 120 days after the end of each fiscal year, or such applicable time as required by the SEC, an annual report on Form 20-F containing financial statements audited by an independent registered public accounting firm, and submit to the SEC, on a Form 6-K, unaudited interim financial information.

We maintain a corporate website at <http://www.icecure-medical.com>. We will post on our website any materials required to be so posted on such website under applicable corporate or securities laws and regulations, including any notices of general meetings of our shareholders.

The SEC also maintains a website that contains information we file electronically with the SEC, which you can access over the Internet at <http://www.sec.gov>. Information contained on, or that can be accessed through, our website and other websites listed in this prospectus do not constitute a part of this prospectus. We have included these website addresses in this prospectus solely as inactive textual references.

This prospectus supplement and the accompanying prospectus are part of a registration statement on Form F-3 filed by us with the SEC under the Securities Act. As permitted by the rules and regulations of the SEC, this prospectus supplement and the accompanying prospectus do not contain all the information set forth in the registration statement and the exhibits thereto filed with the SEC. For further information with respect to us and the securities offered hereby, you should refer to the complete registration statement on Form F-3, which may be obtained from the locations described above. Statements contained in this prospectus supplement and the accompanying prospectus about the contents of any contract or other document are not necessarily complete. If we have filed any contract or other document as an exhibit to the registration statement or any other document incorporated by reference in the registration statement, you should read the exhibit for a more complete understanding of the document or matter involved. Each statement regarding a contract or other document is qualified in its entirety by reference to the actual document.

INCORPORATION OF CERTAIN INFORMATION BY REFERENCE

The SEC allows us to “incorporate by reference” the information we file with it, which means that we can disclose important information to you by referring you to those documents. The information incorporated by reference is considered to be part of this prospectus supplement and the accompanying prospectus and information we file later with the SEC will automatically update and supersede this information. The information incorporated by reference is considered to be part of this prospectus supplement and the accompanying prospectus and information we file later with the SEC will automatically update and supersede this information. The documents we are incorporating by reference as of their respective dates of filing are:

- Our Annual Report on [Form 20-F](#) for the fiscal year ended December 31, 2021, filed with the SEC on April 1, 2022, as amended by the [Form 20-F/A](#) filed with the SEC on August 22, 2022;

- Our Reports of Foreign Private Issuer on Form 6-K submitted on [May 18, 2022](#) (with respect to the sections titled “Q1 2022 Operational and Financial Highlights,” the bullet points under the section titled “Other Recent Highlights,” the section titled “Financial Results as of and for the Three Months Ended March 31, 2022,” the section titled “About IceCure Medical,” and the section titled “Forward-looking Statements” in the press release attached as Exhibit 99.1 to the Form 6-K); [June 9, 2022](#) (with respect to the first through third paragraphs, as well as the sections titled “About IceCure Medical,” and “Forward-looking Statements” in the press release attached as Exhibit 99.1 to the Form 6-K); [June 13, 2022](#) (with respect to the first, second and third paragraphs, as well as the sections titled “About the Distribution Agreement,” “About IceCure Medical,” and “Forward-looking Statements” in the press release attached as Exhibit 99.1 to the Form 6-K); [July 25, 2022](#) (with respect to the first through third paragraphs, as well as the sections titled “About IceCure Medical,” and “Forward-looking Statements” in the press release attached as Exhibit 99.1 to the Form 6-K); [July 27, 2022](#); [August 15, 2022](#) (with respect to the bullet points in the section titled “Q2 2022 Commercial & Operational Highlights”, the section titled “Financial Results for the Six Months Ended June 30, 2022” and the section titled “Forward Looking Statements” in the press release attached as Exhibit 99.1 to the Form 6-K); [August 29, 2022](#) (with respect to the first and second paragraph and section titled “Forward-Looking Statements” in the press release attached as Exhibit 99.1 to the Form 6-K); [September 6, 2022](#); [September 22, 2022](#); [October 19, 2022](#) (with respect to the first through fifth paragraphs, the seventh and eighth paragraphs and the section titled “Forward-Looking Statements” in the press release attached as Exhibit 99.1 to the Form 6-K); [November 8, 2022](#) (with respect to the first, second, third, fourth and seventh paragraphs and the section titled “Forward Looking Statements” in the press release attached as Exhibit 99.1 to the Form 6-K); [November 30, 2022](#); [December 5, 2022](#) (with respect to the first paragraph, the bullet points under the section titled “Third Quarter 2022 Commercial and Operational Highlights,” and the sections titled “Financial Results for the Nine Months Ended September 30, 2022,” and “Forward-Looking Statement” in the press release attached as Exhibit 99.1 to the Form 6-K); [December 6, 2022](#); [December 19, 2022](#) (with respect to the first, second, third and fifth paragraphs and section titled “Forward Looking Statements” in the press release attached as Exhibit 99.1 to the Form 6-K); and
- the description of our securities contained in our [Form 8-A](#) (File No. 001-40753), filed with the SEC on August 23, 2021.

All subsequent annual reports filed by us pursuant to the Exchange Act on Form 20-F prior to the termination of the offering shall be deemed to be incorporated by reference to this prospectus supplement and the accompanying prospectus and to be a part hereof from the date of filing of such documents. We may also incorporate part or all of any Form 6-K subsequently submitted by us to the SEC prior to the termination of the offering by identifying in such Forms 6-K that they, or certain parts of their contents, are being incorporated by reference herein, and any Forms 6-K so identified shall be deemed to be incorporated by reference in this prospectus supplement and the accompanying prospectus and to be a part hereof from the date of submission of such documents. 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 supplement to the extent that a statement contained herein or in any other subsequently filed document which also is incorporated or deemed to be incorporated by reference herein modifies or supersedes such statement. Any such statement so modified or superseded shall not be deemed, except as so modified or superseded, to constitute a part of this prospectus supplement and accompanying prospectus. The information we incorporate by reference is an important part of this prospectus supplement and the accompanying prospectus, and later information that we file with the SEC will automatically update and supersede the information contained in this prospectus supplement and accompanying prospectus.

We will provide you without charge, upon your written or oral request, a copy of any of the documents incorporated by reference in this prospectus supplement and accompanying prospectus, other than exhibits to such documents which are not specifically incorporated by reference into such documents. Please direct your written or telephone requests to us at: 7 Ha'Eshel St., PO Box 3163, Caesarea, 3079504 Israel, Tel: +972-4-6230333; Attention: Chief Financial Officer.

S-16

\$100,000,000



IceCure Medical Ltd.

**Ordinary Shares
Warrants
Units**

We may offer and sell from time to time in one or more offerings up to the total amount of \$100,000,000 of our ordinary shares, no par value, or the Ordinary Shares, warrants or units comprising a combination of Ordinary Shares and warrants. We refer to the Ordinary Shares, the warrants, and the Ordinary Shares issued or issuable upon exercise of the warrants, collectively, as the securities. Each time we sell securities pursuant to this prospectus, we will provide in a supplement to this prospectus the price and any other material terms of any such offering. We may also authorize one or more free writing prospectuses to be provided to you in connection with each offering. Any prospectus supplement and related free writing prospectuses may also add, update or change information contained in the prospectus. You should read this prospectus, any applicable prospectus supplement and related free writing prospectuses, as well as the documents incorporated by reference or deemed incorporated by reference into this prospectus, carefully before you invest in the securities.

Our Ordinary Shares are listed on the Nasdaq Capital Market, or Nasdaq, under the symbol “ICCM.” On September 1, 2022, the last reported sale price of our Ordinary Shares on Nasdaq was \$1.6461 per share. Our Ordinary Shares are also listed on the Tel Aviv Stock Exchange, or TASE, under the symbol “ICCM.”

On August 15, 2022, the aggregate market value of our Ordinary Shares held by non-affiliates was approximately \$34,567,390, based on 17,028,271 Ordinary Shares outstanding and a per share price of \$2.03 based on the closing sale price of our Ordinary Shares on August 15, 2022. We have not offered any securities pursuant to General Instruction I.B.5 on Form F-3 during the prior 12 calendar month period that ends on and includes the date of this prospectus.

We are an emerging growth company, as defined in the Jumpstart Our Business Startups Act of 2012, or the JOBS Act, and are subject to reduced public company reporting requirements.

Investing in the securities involves a high degree of risk. Risks associated with an investment in the securities will be described in any applicable prospectus supplement and are and will be described in certain of our filings with the Securities and Exchange Commission, or SEC, as described in “Risk Factors” beginning on page 3.

The securities may be sold directly by us to investors, through agents designated from time to time or to or through underwriters or dealers, or through a combination of such methods, on a continuous or delayed basis. For additional information on the methods of sale, you should refer to the section entitled “Plan of Distribution” in this prospectus. If any agents or underwriters are involved in the sale of the securities with respect to which this prospectus is being delivered, the names of such agents or underwriters and any applicable fees, commissions, discounts and over-allotment options will be set forth in a prospectus supplement. The price to the public of the securities

and the net proceeds that we expect to receive from such sale will also be set forth in a prospectus supplement.

Neither the Securities and Exchange Commission, or the SEC, the Israel Securities Authority nor any state or other foreign securities commission has approved nor disapproved 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 14, 2022

TABLE OF CONTENTS

About this Prospectus	1
About Our Company	2
Risk Factors	3
Cautionary Note Regarding Forward-Looking Statements	4
Capitalization	5
Use of Proceeds	6
Description of Securities	7
Plan of Distribution	9
Expenses	11
Legal Matters	11
Experts	11
Enforceability of Civil Liabilities	12
Incorporation of Certain Information by Reference	13
Where You Can Find Additional Information	14

ABOUT THIS PROSPECTUS

This prospectus is part of a registration statement on Form F-3 that we filed with the SEC utilizing a “shelf” registration process. Under this shelf registration process, we may offer from time to time up to an aggregate of \$100,000,000 of the Ordinary Shares, warrants or units comprising a combination of Ordinary Shares and warrants in one or more offerings. We sometimes refer to the Ordinary Shares, warrants and units as the “securities” throughout this prospectus.

Each time we sell securities, we will provide you with a prospectus supplement that will describe the specific amounts, prices and terms of such offering. We may also authorize one or more free writing prospectuses to be provided to you in connection with such offering. The prospectus supplement and any related free writing prospectuses may also add, update or change information contained in this prospectus. You should read carefully both this prospectus, the applicable prospectus supplement, the documents incorporated by reference into this prospectus and any related free writing prospectus together with additional information described below under “Where You Can Find More Information” and “Incorporation of Certain Information by Reference” before buying the securities being offered.

This prospectus does not contain all of the information provided in the registration statement that we filed with the SEC. For further information about us or the securities, you should refer to that registration statement, which you can obtain from the SEC as described below under “Where You Can Find More Information” and “Incorporation of Certain Information by Reference.”

You should rely only on the information contained or incorporated by reference in this prospectus, a prospectus supplement and related free writing prospectuses. Neither we, nor any agent, underwriter or dealer has authorized any other person to provide you with different information. If anyone provides you with different or inconsistent information, you should not rely on it.

This prospectus is not an offer to sell these securities and it is not soliciting an offer to buy these securities in any jurisdiction where the offer or sale is not permitted. You should not assume that the information contained in this prospectus and the accompanying prospectus supplement or related free writing prospectuses is accurate on any date subsequent to the date set forth on the front of the document or that any information that we have incorporated by reference is correct on any date subsequent to the date of the document incorporated by reference. Our business, financial condition, results of operations and prospects may have changed since those dates.

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

In this prospectus, “we,” “us,” “our,” the “Company” and “IceCure” refer to IceCure Medical Ltd. and its wholly owned subsidiaries, IceCure Medical Inc., a Delaware corporation, IceCure Medical HK Limited, a Hong Kong corporation, and IceCure (Shanghai) MedTech Co., Ltd., a subsidiary of IceCure Medical HK Limited.

All trademarks or trade names referred to in this prospectus are the property of their respective owners. Solely for convenience, the trademarks and trade names in this prospectus are referred to without the ® and ™ symbols, but such references should not be construed as any indicator that their respective owners will not assert, to the fullest extent under applicable law, their rights thereto. We do not intend the use or display of other companies’ trademarks and trade names to imply a relationship with, or

endorsement or sponsorship of us by, any other companies.

Our reporting currency and functional currency is the U.S. dollar. Unless otherwise expressly stated or the context otherwise requires, references in this prospectus to “NIS” are to New Israeli Shekels, and references to “dollars” or “\$” are to U.S. dollars.

This prospectus includes statistical, market and industry data and forecasts which we obtained from publicly available information and independent industry publications and reports that we believe to be reliable sources. These publicly available industry publications and reports generally state that they obtain their information from sources that they believe to be reliable, but they do not guarantee the accuracy or completeness of the information. Although we believe that these sources are reliable, we have not independently verified the information contained in such publications.

We report our financial statements in accordance with generally accepted accounting principles in the United States, or U.S. GAAP.

1

ABOUT OUR COMPANY

We are a commercial stage medical device company focusing on the research, development and marketing of cryoablation systems and technologies based on liquid nitrogen, or LN2, for treating tumors. Cryoablation is the process by which benign and malignant tumors are ablated (destroyed) through freezing such tumors while in a patient’s body. Our proprietary cryoablation technology is a minimally invasive alternative to surgical intervention, for tumors, including those found in breast, lungs, kidneys, bones and other indications. Our lead commercial cryoablation product is the ProSense system.

In addition to our existing lead product, the ProSense system, a single probe system, we have developed an additional multi probe system that is expected to have the ability to freeze several tumors simultaneously or larger tumors, which we refer to as our MultiSense system, which has not been commercialized. In our continued efforts aimed at improving our core technology, we are currently focusing on developing our next generation MultiSense system, which we intend to commercialize subject to regulatory approvals. We are also in the process of developing our next generation single probe system. While these next generation systems are still in various research and development stages, we expect them to be more efficient and user friendly.

Corporate Information

We are an Israeli corporation based in Caesarea, Israel and were incorporated in Israel in 2006. On February 2, 2011, we became a public company in Israel and our Ordinary Shares were listed for trade on the TASE. On August 26, 2021, our Ordinary Shares were listed for trade on Nasdaq. Our principal executive offices are located at 7 Ha’Eshel St., PO Box 3163, Caesarea, 3079504 Israel. Our telephone number in Israel is +972-4-6230333. Our website address is <http://www.icecure-medical.com>. The information contained on, or that can be accessed through, our website is not part of this prospectus. We have included our website address in this prospectus solely as an inactive textual reference.

2

RISK FACTORS

Investing in our securities involves risks. Please carefully consider the risk factors described in our periodic reports filed with the SEC, including those set forth under the caption “Item 3. Key Information - D. Risk Factors” in our most recent Annual Report on Form 20-F or any updates in our Reports of Foreign Private Issuer on Form 6-K, which are incorporated by reference in this prospectus, together with all of the other information appearing in this prospectus or incorporated by reference into this prospectus and any applicable prospectus supplement, in light of your particular investment objectives and financial circumstances. Additional risks and uncertainties not currently known to us or that we currently deem to be immaterial may also impair our business operations. If any of these risks actually occur, our business, financial condition, operating results or cash flows could be materially adversely affected. This could cause the trading price of our securities to decline, and you may lose all or part of your investment. The discussion of risks includes or refers to forward-looking statements; you should read the explanation of the qualifications and limitations on such forward-looking statements discussed elsewhere in this prospectus.

3

CAUTIONARY NOTE REGARDING FORWARD-LOOKING STATEMENTS

This prospectus contains, and any accompanying prospectus supplement will contain, forward-looking statements within the meaning of Section 27A of the Securities Act of 1933, as amended, or the Securities Act, and Section 21E of the Securities Exchange Act of 1934, as amended, or the Exchange Act, and the Private Securities Litigation Reform Act of 1995. Also, documents that we incorporate by reference into this prospectus, including documents that we subsequently file with the SEC, contain and will contain forward-looking statements. Forward-looking statements are those that predict or describe future events or trends and that do not relate solely to historical matters. You can generally identify forward-looking statements as statements containing the words “may,” “will,” “could,” “should,” “expect,” “anticipate” “objective,” “goal,” “intend,” “estimate,” “believe,” “project,” “plan,” “assume” or other similar expressions, or negatives of those expressions, although not all forward-looking statements contain these identifying words. All statements contained or incorporated by reference in this prospectus and any prospectus supplement regarding our objectives, plans and strategies, statements that contain projections of results of operations or of financial condition, expected capital needs and expenses, statements relating to the research, development, completion and use of our products, and all statements (other than statements of historical facts) that address activities, events or developments that we intend, expect, project, believe or anticipate will or may occur in the future.

You should not place undue reliance on our forward-looking statements because the matters they describe are subject to certain risks, uncertainties and assumptions, including in many cases decisions or actions by third parties, that are difficult to predict. Our forward-looking statements are based on the information currently available to us and speak only as of the date on the cover of this prospectus, the date of any prospectus supplement, or, in the case of forward-looking statements incorporated by reference, the date of the filing that includes the statement. Over time, our actual results, performance or achievements may differ from those expressed or implied by our forward-looking statements, and such difference might be significant and materially adverse to our security holders. We undertake no obligation to update publicly any forward-looking statements, whether as a result of new information, future events or otherwise.

We have identified some of the important factors that could cause future events to differ from our current expectations and they are described in this prospectus and

supplements to this prospectus (if any) under the caption “Risk Factors,” “Use of Proceeds,” and elsewhere in this prospectus as well as in our most recent Annual Report on Form 20-F, including without limitation under the captions “Risk Factors” and “Operating and Financial Review and Prospects,” and in other documents that we may file with the SEC, all of which you should review carefully. Please consider our forward-looking statements in light of those risks as you read this prospectus, the documents incorporated by reference herein and any prospectus supplement.

4

CAPITALIZATION

The following table sets forth our cash and cash equivalents and our capitalization as of June 30, 2022.

You should read this table in conjunction with our audited financial statements and notes thereto included in our Annual Report on Form 20-F for our fiscal year ended December 31, 2021 filed with the SEC on April 1, 2022, as amended by our Form 20-F/A filed with the SEC on August 22, 2022, and our unaudited financial results as of and for the six months ended June 30, 2022, furnished with the SEC on August 15, 2022, which are incorporated by reference herein.

<i>U.S. dollars in thousands</i>	As of June 30, 2022
	(Unaudited)
Cash and cash equivalents	\$ 13,468
Deposits	4,257
Shareholders' equity:	
Additional paid-in capital	86,275
Accumulated deficit	(67,399)
Total shareholders' equity	18,876
Total capitalization	<u>\$ 36,601</u>

5

USE OF PROCEEDS

Unless otherwise indicated in an accompanying prospectus supplement, we intend to use the net proceeds from the sale of our securities in this offering for working capital and general corporate purposes. The amounts and timing of our actual expenditures will depend upon numerous factors, including the timing, scope, progress and results of our research and development efforts, timing and progress of our clinical trials, regulatory and competitive environment and other factors that management believes are appropriate. Accordingly, our management will have broad discretion in applying the net proceeds of this offering. Pending application of the net proceeds for the purposes as described above, we may invest the net proceeds in a variety of capital preservation investments, including short-term, interest-bearing securities, and U.S. government securities.

6

DESCRIPTION OF SECURITIES

The descriptions of the securities contained in this prospectus, together with the applicable prospectus supplements, summarize the material terms and provisions of the various types of securities that we may offer. We will describe in the applicable prospectus supplement relating to any securities the particular terms of the securities offered by that prospectus supplement. If we so indicate in the applicable prospectus supplement, the terms of the securities may differ from the terms we have summarized below.

We may sell from time to time, in one or more offerings, Ordinary Shares, warrants to purchase Ordinary Shares or units comprising a combination of Ordinary Shares and warrants.

In this prospectus, we refer to the Ordinary Shares and warrants to purchase Ordinary Shares and units that may be offered by us collectively as “securities.” The total dollar amount of all securities that we may issue under this prospectus will not exceed \$100,000,000. The actual price per share of the shares that we will offer, or per security of the securities that we will offer, pursuant hereto will depend on a number of factors that may be relevant as of the time of offer.

This prospectus may not be used to consummate a sale of securities unless it is accompanied by a prospectus supplement.

Warrants

We may issue warrants independently or together with any other securities offered by any prospectus supplement and the warrants may be attached to or separate from those securities. We will evidence each series of warrants by warrant certificates that we may issue under a separate agreement or other evidence. Any series of warrants may be issued under a separate warrant agreement, which may be entered into between us and a warrant agent specified in an applicable prospectus supplement relating to a particular series of warrants. Any such warrant agent will act solely as our agent in connection with the warrants of such series and will not assume any obligation or relationship of agency or trust with any of the holders of the warrants. We may also choose to act as our own warrant agent. We will set forth further terms of the warrants and any applicable warrant agreements in the applicable prospectus supplement relating to the issuance of any warrants, including, where applicable, the following:

- the title of the warrants;
- the aggregate number of the warrants;
- exchange distributions and/or secondary distributions;
- the number of securities purchasable upon exercise of the warrants;

- the designation and terms of the securities, if any, with which the warrants are issued, and the number of the warrants issued with each such offered security;
- the date, if any, on and after which the warrants and the related securities will be separately transferable;
- the price at which, and form of consideration for which, each security purchasable upon exercise of the warrants may be purchased;
- the date on which the right to exercise the warrants will commence and the date on which the right will expire;
- if applicable, the date on and after which such warrants and the related securities will be separately transferable;
- the manner in which the warrants may be exercised, which may include by cashless exercise;
- the effect of any merger, consolidation, sale or other disposition of our business on the warrant agreement and the warrants;
- the terms of any rights to redeem or call the warrants;
- any provisions for changes to or adjustments in the exercise price or number of Ordinary Shares issuable upon exercise of the warrants;
- information with respect to book-entry procedures, if any;
- if applicable, a discussion of the material Israeli and U.S. income tax considerations applicable to the issuance or exercise of such warrants;

- the anti-dilution and adjustment of share capital provisions of the warrants, if any;
- the minimum or maximum amount of the warrants which may be exercised at any one time;
- any circumstances that will cause the warrants to be deemed to be automatically exercised; and
- any other material terms of the warrants.

Units

We may issue units comprised of one or more of the other securities that may be offered under this prospectus, in any combination. As specified in the applicable prospectus supplement, we may issue units consisting of our Ordinary Shares, warrants or any combination of such securities. Each unit will be issued so that the holder of the unit is also the holder of each security included in the unit. Thus, the holder of a unit will have the rights and obligations of a holder of each included security. The unit agreement under which a unit is issued 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 applicable prospectus supplement will describe:

- the terms of the units and of the Ordinary Shares and/or warrants comprising the units, including whether and under what circumstances the securities comprising the units may be traded separately;
- a description of the terms of any unit agreement governing the units or any arrangement with an agent that may act on our behalf in connection with the unit offering;
- a description of the provisions for the payment, settlement, transfer or exchange of the units; and
- any material provisions of the governing unit agreement that differ from those described above.

The description in the applicable prospectus supplement of any units we offer will not necessarily be complete and will be qualified in its entirety by reference to the applicable unit agreement, which will be filed with the SEC if we offer units. For more information on how you can obtain copies of the applicable unit agreement if we offer units, see “Where You Can Find Additional Information.”

PLAN OF DISTRIBUTION

We may sell the securities being offered hereby in one or more of the following methods from time to time:

- a block trade (which may involve crosses) in which the broker or dealer so engaged will attempt to sell the securities as agent but may position and resell a portion of the block as principal to facilitate the transaction;
- purchases by a broker or dealer as principal and resale by such broker or dealer for its own account pursuant to this prospectus;
- exchange distributions and/or secondary distributions;
- ordinary brokerage transactions and transactions in which the broker solicits purchasers;
- to one or more underwriters for resale to the public or to investors;
- through agents;
- in an “at the market offering,” 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;

- directly to a purchaser pursuant to what is known as an “equity line of credit” as described below;
- transactions not involving market makers or established trading markets, including direct sales or privately negotiated transactions; or
- through a combination of these methods of sale.

The securities that we distribute by any of these methods may be sold, in one or more transactions, at:

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

We will set forth in a prospectus supplement the terms of the offering of securities, including:

- the name or names of any agents, dealers or underwriters;
- the purchase price of the securities being offered and the proceeds we will receive from the sale;
- any over-allotment options under which underwriters may purchase additional securities from us;
- any agency fees or underwriting discounts and other items constituting agents’ or underwriters’ compensation;
- the public offering price;
- any discounts or concessions allowed or re-allowed or paid to dealers; and
- any securities exchanges or markets on which such securities may be listed.

If underwriters are used in the sale, they will acquire the securities for their own account and may resell the securities from time to time in one or more transactions at a fixed public offering price or at varying prices determined at the time of sale. The obligations of the underwriters to purchase the securities will be subject to the conditions set forth in the applicable underwriting agreement. We may offer the securities to the public through underwriting syndicates represented by managing underwriters or by underwriters without a syndicate. Subject to certain conditions, the underwriters will be obligated to purchase all of the securities offered by the prospectus supplement, other than securities covered by any over-allotment option. Any public offering price and any discounts or concessions allowed or re-allowed or paid to dealers may change from time to time. We may use underwriters with whom we have a material relationship. We will describe in the prospectus supplement, naming the underwriter, the nature of any such relationship.

We may sell securities directly or through agents we designate from time to time. We will name any agent involved in the offering and sale of securities and we will describe any commissions we will pay the agent in the prospectus supplement. Unless the prospectus supplement states otherwise, our agent will act on a best-efforts basis for the period of its appointment.

We may also sell securities directly to one or more purchasers without using underwriters or agents.

Underwriters, dealers and agents that participate in the distribution of the securities may be underwriters as defined in the Securities Act and any discounts or commissions they receive from us and any profit on their resale of the securities may be treated as underwriting discounts and commissions under the Securities Act. We will identify in the applicable prospectus supplement any underwriters, dealers or agents and will describe their compensation. We may have agreements with the underwriters, dealers and agents to indemnify them against specified civil liabilities, including liabilities under the Securities Act. Underwriters, dealers and agents may engage in transactions with or perform services for us in the ordinary course of their businesses.

In connection with an offering, an underwriter 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 the offering.

Accordingly, to cover these short sales positions or to otherwise stabilize or maintain the price of the securities, the underwriters may bid for or purchase securities in the open market and may impose penalty bids. If penalty bids are imposed, selling concessions allowed to syndicate members or other broker-dealers participating in the offering are reclaimed if securities previously distributed in the offering are repurchased, whether in connection with stabilization transactions or otherwise. The effect of these transactions may be to stabilize or maintain the market price of the securities at a level above that which might otherwise prevail in the open market. The impositions of a penalty bid may also affect the price of the securities to the extent that it discourages resale of the securities. The magnitude or effect of any stabilization or other transactions is uncertain. These transactions may be effected on Nasdaq or otherwise and, if commenced, may be discontinued at any time.

EXPENSES

We are paying all of the expenses of the registration of our securities under the Securities Act, including, to the extent applicable, registration and filing fees, printing fees and expenses, accounting fees and the legal fees of our counsel. We estimate these expenses to be approximately \$40,270 which at the present time include the following categories of expenses:

SEC registration fee	\$	9,270
Printer fees and expenses	\$	3,500
Legal fees and expenses	\$	15,000

Accounting fees and expenses	\$ 12,500
Total	\$ 40,270

In addition, we anticipate incurring additional expenses in the future in connection with the offering of our securities pursuant to this prospectus. Any such additional expenses will be disclosed in a prospectus supplement.

LEGAL MATTERS

Certain legal matters concerning this offering will be passed upon for us by Sullivan & Worcester LLP, New York, New York. Certain legal matters with respect to the legality of the issuance of the securities offered by this prospectus and other legal matters concerning this offering relating to Israeli law will be passed upon for us by Sullivan & Worcester Tel Aviv (Har-Even & Co.), Tel Aviv, Israel.

EXPERTS

The financial statements as of December 31, 2021 and 2020 and for each of the three years then ended incorporated by reference into this prospectus have been so included in reliance upon the report of Brightman Almagor Zohar & Co., a firm in the Deloitte Global Network, an independent registered public accounting firm, as set forth in their report thereon, included therein. Such consolidated financial statements are incorporated herein by reference in reliance upon such report given on the authority of said firm as experts in auditing and accounting.

11

ENFORCEABILITY OF CIVIL LIABILITIES

We are incorporated under the laws of the State of Israel. Service of process upon us and upon our directors and officers and the Israeli experts named in the registration statement of which this prospectus forms a part, a substantial majority of whom reside outside of the United States, may be difficult to obtain within the United States. Furthermore, because substantially all of our assets and a substantial of our directors and officers are located outside of the United States, any judgment obtained in the United States against us or any of our directors and officers may not be collectible within the United States.

We have been informed by our legal counsel in Israel, Sullivan & Worcester Tel Aviv (Har-Even & Co.), that it may be difficult to assert U.S. securities law claims in original actions instituted in Israel. Israeli courts may refuse to hear a claim based on a violation of U.S. securities laws because Israel is not the most appropriate forum to bring such a claim. In addition, even if an Israeli court agrees to hear a claim, it may determine that Israeli law and not U.S. law is applicable to the claim. If U.S. law is found to be applicable, the content of applicable U.S. law must be proved as a fact which can be a time-consuming and costly process. Certain matters of procedure will also be governed by Israeli law.

Subject to specified time limitations and legal procedures, Israeli courts may enforce a U.S. judgment in a civil matter which, subject to certain exceptions, is non-appealable, including judgments based upon the civil liability provisions of the Securities Act and the Exchange Act and including a monetary or compensatory judgment in a non-civil matter, provided that among other things:

- the judgment is obtained after due process before a court of competent jurisdiction, according to the laws of the state in which the judgment is given and the rules of private international law currently prevailing in Israel;
- the judgment is final and is not subject to any right of appeal;
- the prevailing law of the foreign state in which the judgment was rendered allows for the enforcement of judgments of Israeli courts;
- adequate service of process has been effected and the defendant has had a reasonable opportunity to be heard and to present his or her evidence;
- the liabilities under the judgment are enforceable according to the laws of the State of Israel and the judgment and the enforcement of the civil liabilities set forth in the judgment is not contrary to the law or public policy in Israel nor likely to impair the security or sovereignty of Israel;
- the judgment was not obtained by fraud and does not conflict with any other valid judgments in the same matter between the same parties;
- an action between the same parties in the same matter is not pending in any Israeli court at the time the lawsuit is instituted in the foreign court; and
- the judgment is enforceable according to the laws of Israel and according to the law of the foreign state in which the relief was granted.

If a foreign judgment is enforced by an Israeli court, it generally will be payable in Israeli currency, which can then be converted into non-Israeli currency and transferred out of Israel. The usual practice in an action before an Israeli court to recover an amount in a non-Israeli currency is for the Israeli court to issue a judgment for the equivalent amount in Israeli currency at the rate of exchange in force on the date of the judgment, but the judgment debtor may make payment in foreign currency. Pending collection, the amount of the judgment of an Israeli court stated in Israeli currency ordinarily will be linked to the Israeli consumer price index plus interest at the annual statutory rate set by Israeli regulations prevailing at the time. Judgment creditors must bear the risk of unfavorable exchange rates.

12

INCORPORATION OF CERTAIN INFORMATION BY REFERENCE

The SEC allows us to “incorporate by reference” the information we file with it, which means that we can disclose important information to you by referring you to those documents. The information incorporated by reference is considered to be part of this prospectus and information we file later with the SEC will automatically update and supersede this information. The information incorporated by reference is considered to be part of this prospectus and information we file later with the SEC will automatically update and supersede this information. The documents we are incorporating by reference as of their respective dates of filing are:

- Our Annual Report on [Form 20-F](#) for the fiscal year ended December 31, 2021, filed with the SEC on April 1, 2022, as amended by the [Form 20-F/A](#) filed with the SEC on August 22, 2022;

- Our Reports of Foreign Private Issuer on Form 6-K submitted on [May 18, 2022](#) (with respect to the sections titled “Q1 2022 Operational and Financial Highlights,” the bullet points under the section titled “Other Recent Highlights,” the section titled “Financial Results as of and for the Three Months Ended March 31, 2022,” the section titled “About IceCure Medical,” and the section titled “Forward-looking Statements” in the press release attached as Exhibit 99.1 to the Form 6-K); [June 9, 2022](#) (with respect to the first through third paragraphs, as well as the sections titled “About IceCure Medical,” and “Forward-looking Statements” in the press release attached as Exhibit 99.1 to the Form 6-K); [June 13, 2022](#) (with respect to the first, second and third paragraphs, as well as the sections titled “About the Distribution Agreement,” “About IceCure Medical,” and “Forward-looking Statements” in the press release attached as Exhibit 99.1 to the Form 6-K); [July 25, 2022](#) (with respect to the first through third paragraphs, as well as the sections titled “About IceCure Medical,” and “Forward-looking Statements” in the press release attached as Exhibit 99.1 to the Form 6-K); [July 27, 2022](#); [August 15, 2022](#) (with respect to the bullet points in the section titled “Q2 2022 Commercial & Operational Highlights”, the section titled “Financial Results for the Six Months Ended June 30, 2022” and the section titled “Forward Looking Statements” in the press release attached as Exhibit 99.1 to the Form 6-K); and [August 29, 2022](#) (with respect to the first and second paragraph and section titled “Forward-Looking Statements” in the press release attached as Exhibit 99.1 to the Form 6-K); and
- the description of our securities contained in our [Form 8-A](#) (File No. 001-40753), filed with the SEC on August 23, 2021.

All subsequent annual reports filed by us pursuant to the Exchange Act on Form 20-F prior to the termination of the offering shall be deemed to be incorporated by reference to this prospectus and to be a part hereof from the date of filing of such documents. We may also incorporate part or all of any Form 6-K subsequently submitted by us to the SEC prior to the termination of the offering by identifying in such Forms 6-K that they, or certain parts of their contents, are being incorporated by reference herein, and any Forms 6-K so identified shall be deemed to be incorporated by reference in this prospectus and to be a part hereof from the date of submission of such documents. 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 to the extent that a statement contained herein or in any other subsequently filed document which also is incorporated or deemed to be incorporated by reference herein modifies or supersedes such statement. Any such statement so modified or superseded shall not be deemed, except as so modified or superseded, to constitute a part of this prospectus. The information we incorporate by reference is an important part of this prospectus, and later information that we file with the SEC will automatically update and supersede the information contained in this prospectus.

We will provide you without charge, upon your written or oral request, a copy of any of the documents incorporated by reference in this prospectus, other than exhibits to such documents which are not specifically incorporated by reference into such documents. Please direct your written or telephone requests to us at: 7 Ha'Eshel St., PO Box 3163, Caesarea, 3079504 Israel, Tel: +972-4-6230333; Attention: Chief Financial Officer.

13

WHERE YOU CAN FIND ADDITIONAL INFORMATION

We are an Israeli company and are a “foreign private issuer” as defined in Rule 3b-4 under the Exchange Act. As a foreign private issuer, we are exempt from the rules under the Exchange Act related to the furnishing and content of proxy statements, and our officers, directors and principal shareholders are exempt from the reporting and short-swing profit recovery provisions contained in Section 16 of the Exchange Act.

In addition, we are not required under the Exchange Act to file annual, quarterly and current reports and financial statements with the SEC as frequently or as promptly as U.S. companies whose securities are registered under the Exchange Act. However, we file with the SEC, within 120 days after the end of each fiscal year, or such applicable time as required by the SEC, an annual report on Form 20-F containing financial statements audited by an independent registered public accounting firm, and submit to the SEC, on a Form 6-K, unaudited interim financial information.

We maintain a corporate website at <http://www.icecure-medical.com>. We will post on our website any materials required to be so posted on such website under applicable corporate or securities laws and regulations, including any notices of general meetings of our shareholders.

The SEC also maintains a web site that contains information we file electronically with the SEC, which you can access over the Internet at <http://www.sec.gov>. Information contained on, or that can be accessed through, our website and other websites listed in this prospectus do not constitute a part of this prospectus. We have included these website addresses in this prospectus solely as inactive textual references.

This prospectus is part of a registration statement on Form F-3 filed by us with the SEC under the Securities Act. As permitted by the rules and regulations of the SEC, this prospectus does not contain all the information set forth in the registration statement and the exhibits thereto filed with the SEC. For further information with respect to us and the securities offered hereby, you should refer to the complete registration statement on Form F-3, which may be obtained from the locations described above. Statements contained in this prospectus or in any prospectus supplement about the contents of any contract or other document are not necessarily complete. If we have filed any contract or other document as an exhibit to the registration statement or any other document incorporated by reference in the registration statement, you should read the exhibit for a more complete understanding of the document or matter involved. Each statement regarding a contract or other document is qualified in its entirety by reference to the actual document.

14

Ordinary Shares



IceCure Medical Ltd.

PROSPECTUS SUPPLEMENT

Lead Placement Agent

A.G.P.

Co-Placement Agent
Brookline Capital Markets
a division of Arcadia Securities, LLC

December , 2022
