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Registration No. 333-269157

PROSPECTUS SUPPLEMENT
(To the Prospectus dated January 6, 2023)

ENSYSCE BIOSCIENCES, INC.

2,490,798 Shares of Common Stock
1,062,396 Pre-funded Warrants to Purchase up to 1,062,396 Shares of Common Stock
Up to 1,062,396 Shares of Common Stock Underlying the Pre-Funded Warrants

Pursuant to this prospectus supplement and the accompanying prospectus, we are offering 2,490,798 shares of our common stock, $0.0001 par value per share, and pre-funded warrants to purchase up to 1,062,396 shares of common stock ("*Pre-funded Warrants*") to certain institutional investors at an offering price of $0.47 per share of common stock and $0.4699 per Pre-funded Warrant. Each Pre-funded Warrant will have an exercise price of $0.0001 per share and will be exercisable upon issuance until exercised in full, and is subject to adjustments in the event of stock splits, dividends, subsequent rights offerings, pro rata distributions, and certain fundamental transactions, as more fully described in the section of this prospectus supplement titled "Description of the Pre-Funded Warrants." In a concurrent private placement, we are also selling to such investors warrants to purchase up to 7,106,388 shares of our common stock (the "*Warrants*"), which represent 200% of the number of shares of our common stock and Pre-funded Warrants being purchased in this offering. Each Warrant will be exercisable for one share of our common stock at an exercise price of $0.47 per share and will be exercisable beginning on the effective date of stockholder approval of the issuance of the shares upon exercise of the Warrants ("*Stockholder Approval*"). Of those 7,106,388 Warrants, 3,553,194 will have a term of five years from the date of Stockholder Approval and 3,553,194 will have a term of eighteen months from the date of Stockholder Approval. The Warrants and the shares of our common stock issuable upon the exercise of the Warrants (the "*Warrant Shares*") are being offered pursuant to the exemptions provided in Section 4(a)(2) under the Securities Act of 1933, as amended (the "*Securities Act*") and Rule 506(b) promulgated thereunder, and they are not being offered pursuant to this prospectus supplement and the accompanying prospectus. There is no established public trading market for the Warrants and we do not expect a market to develop. In addition, we do not intend to list the Warrants on the Nasdaq Capital Market, any other national securities exchange or any other nationally recognized trading system.

Our common stock is listed on the Nasdaq Capital Market under the symbol "ENSC." On August 27, 2024, the last reported sale price of our common stock on the Nasdaq Capital Market was $0.6444 per share. There is no established public trading market for the Pre-funded Warrants being offered in this offering and the Warrants being sold in a concurrent private placement, and we do not expect a market to develop. In addition, we do not intend to apply for listing of the Pre-funded Warrants or the Warrants on any national securities exchange or other trading market. Without an active market, the liquidity of the Pre-funded Warrants and the Warrants will be limited.

We have engaged H.C. Wainwright & Co., LLC (the "*placement agent*"), as our exclusive placement agent in connection with this offering. The placement agent has no obligation to buy any of the securities from us or to arrange for the purchase or sale of any specific number or dollar amount of securities. We have agreed to pay the placement agent the placement agent fees set forth in the table below. See "Plan of Distribution" beginning on page S-12 of this prospectus supplement for more information regarding these arrangements.

Our business and investing in our common stock involves a high degree of risk. See "Risk Factors" beginning on page S-5 of this prospectus supplement and page 5 of the accompanying prospectus.

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

We are a "smaller reporting company" as defined under Rule 405 of the Securities Act of 1933, as amended, and, as such, have elected to comply with certain reduced disclosure and regulatory requirements.

	Per Share	Per PreFunded Warrant	Total
Offering price	$ 0.470	$ 0.4699	$ 1,670,001.18
Placement Agent fees (1)	$ 0.033	$ 0.033	$ 116,900.08
Proceeds to us (before expenses) (2)	$ 0.437	$ 0.4369	$ 1,553,101.10

(1) In addition, we have agreed to pay the placement agent certain expenses and to issue the placement agent or its designees warrants to purchase a number of shares of common stock equal to 7.0% of the shares of common stock and Pre-funded Warrants sold in this offering. See "Plan of Distribution" beginning on page S-12 for more information.
(2) The amount of the offering proceeds to us presented in this table does not give effect to the sale or exercise, if any, of the Warrants being issued in the concurrent private placement or the warrants being issued to the placement agent.

As of August 27, 2024, the aggregate market value of our common stock held by non-affiliates, or our public float, was approximately $5.6 million based on a total number of 8,817,316 shares of common stock outstanding, of which 8,642,787 shares of common stock were held by non-affiliates, and a price of $0.6444 per share, the closing price of our common stock on August 27, 2024. Pursuant to General Instruction I.B.6. of Form S-3, in no event will we sell the securities covered hereby in a public primary offering with a value exceeding more than one-third of the aggregate market value of our common stock in any 12-month calendar period so long as the aggregate market value of our outstanding common stock held by non-affiliates remains below $75.0 million. Following the sale of shares and Pre-funded Warrants in this offering, we will have sold securities with an aggregate market value of $1,670,001.18 pursuant to General Instruction I.B.6 of Form S-3 during the 12-month calendar period that ends on and includes the date hereof.

Delivery of the shares of common stock and Pre-funded Warrants offered hereby is expected to take place on or about August 29, 2024, subject to satisfaction of certain closing conditions.

H.C. Wainwright & Co.

The date of this prospectus supplement is August 28, 2024.

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PROSPECTUS SUPPLEMENT

PROSPECTUS

ABOUT THIS PROSPECTUS

This prospectus supplement and the accompanying prospectus are part of a registration statement that we filed with the U.S. Securities and Exchange Commission utilizing a "shelf" registration process. This document is in two parts. The first part is this prospectus supplement, which describes the specific terms of this offering and also adds to and updates information contained in the accompanying prospectus and the documents incorporated by reference herein. The second part, the accompanying prospectus, provides more general information. Generally, when we refer to this prospectus, we are referring to both parts of this document combined. 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 therein filed prior to 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.

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

You should rely only on the information contained in this prospectus supplement or the accompanying prospectus or incorporated by reference herein. We have not authorized, and the placement agent has not authorized, anyone to provide you with information that is different. The information contained in this prospectus supplement or the accompanying prospectus, or incorporated by reference herein or therein is accurate only as of the respective dates thereof, regardless of the time of delivery of this prospectus supplement and the accompanying prospectus or of any sale of our common stock. It is important for you to read and consider all information contained in this prospectus supplement and the accompanying prospectus, including the documents incorporated by reference herein and therein, in making your investment decision. You should also read and consider the information in the documents to which we have referred you in the sections entitled "**Where you can find more information - Information incorporated by reference**" in this prospectus supplement and in the accompanying prospectus, respectively.

We are offering to sell, and seeking offers to buy, the securities offered by this prospectus supplement only in jurisdictions where offers and sales are permitted. The distribution of this prospectus supplement and the accompanying prospectus and the offering of the securities offered by this prospectus supplement in certain jurisdictions may be restricted by law. Persons outside the United States who come into possession of this prospectus supplement and the accompanying prospectus must inform themselves about, and observe any restrictions relating to, the offering of the common stock and the distribution of this prospectus supplement and the accompanying prospectus outside the United States. This prospectus supplement and the accompanying prospectus do not constitute, and may not be used in connection with, an offer to sell, or a solicitation of an offer to buy, any securities offered by this prospectus supplement and the accompanying prospectus by any person in any jurisdiction in which it is unlawful for such person to make such an offer or solicitation.

We own or have rights to trademarks, trade names and service marks that we use in connection with the operation of our business. In addition, our name, logos and website name and address are our trademarks or service marks. Solely for convenience, in some cases, the trademarks, trade names and service marks referred to in this prospectus are listed without the applicable ®, ™ and SM symbols, but we will assert, to the fullest extent under applicable law, our rights to these trademarks, trade names and service marks. Other trademarks, trade names and service marks appearing in this prospectus are the property of their respective owners.

On October 28, 2022, we effected a one-for-twenty reverse split of our common stock (the "2022*Reverse Split*"). On March 31, 2023, we effected a one-for-twelve reverse split of our common stock (the "2023 Reverse Split" and together with the 2022 Reverse Split the "Reverse Splits"). to the Reverse Splits for all periods presented. Except for share and per share information prior to the 2023 Reserve Split in the accompanying prospectus, all share and per share information has been restated retroactively,

giving effect to the Reverse Splits for all periods presented.

Unless the context indicates otherwise, references in this prospectus to the "*Company*," "*Ensysce*," "*we*," "*us*," "*our*," and similar terms refer to Ensysce Biosciences, Inc. (f/k/a Leisure Acquisition Corp.) and its consolidated subsidiaries.

PROSPECTUS SUPPLEMENT SUMMARY

This summary highlights selected information contained elsewhere in this prospectus supplement, the accompanying prospectus and the documents incorporated by reference herein and therein. This summary does not contain all the information you should consider before investing in our securities. Before making an investment decision, to fully understand this offering and its consequences to you, you should carefully read this entire prospectus supplement and the accompanying prospectus, including "Risk Factors," beginning on page S-5 of this prospectus supplement and under similar sections of the accompanying prospectus and other periodic reports incorporated herein and therein by reference, along with our financial statements and related notes. As used in this prospectus, unless the context otherwise indicates, the terms "we," "our," "us," or "the Company" refer to Ensysce Biosciences, Inc., a Delaware corporation, and its subsidiaries taken as a whole.

Overview

We are a clinical stage pharmaceutical company seeking to develop innovative solutions for severe pain relief while reducing the fear of and the potential for opioid misuse, abuse and overdose. Our lead product candidate, PF614, is an extended release TAAP prodrug of oxycodone. TAAP modification of prescription drugs removed the ability to crush, chew or manipulate and inject to achieve the effect of the medication more quickly than by swallowing. MPAR® adds a layer of overdose protection to each TAAP product.

Since our inception in 2003, we devoted substantially all our efforts and financial resources to organizing and staffing our company, business planning, raising capital, discovering product candidates and securing related intellectual property rights and conducting research and development activities for our product candidates. We do not have any products approved for sale and we have not generated any revenue from product sales. We may never be able to develop or commercialize a marketable product.

Our lead product candidate, PF614, is ready for Phase 3 clinical development, PF614-MPAR is in Phase 1b clinical development and nafamostat has completed Phase 1 clinical development. Our other product candidates and our research initiatives are in preclinical or earlier stages of development. Our ability to generate revenue from product sales sufficient to achieve profitability will depend heavily on the successful development and eventual commercialization of one or more of our product candidates. We have not yet successfully completed any pivotal clinical trials, nor have we obtained any regulatory approvals, manufactured a commercial-scale drug, or conducted sales and marketing activities.

Recent Developments

On August 28, 2024, we entered into an Inducement Offer to provide for the issuance of warrants, also with an exercise price of $0.47 per share of common stock, to the investors that will participate in this offering in return for the exercise by those investors of warrants previously issued to them, at exercise prices reduced from those in the previously issued warrants. Under the Inducement Offer, we will issue warrants to purchase 10,805,256 shares of common stock exercisable beginning on the effective date of Stockholder Approval and expiring eighteen months following Stockholder Approval and warrants to purchase 10,805,256 shares of common stock exercisable beginning on the effective date of Stockholder Approval and expiring five years following Stockholder Approval. The form of these warrants is virtually identical to the form of the Warrants. In return, the investors will exercise existing warrants to purchase 7,203,504 shares of our common stock previously issued in February 2024 with an initial exercise price of $1.06, at a reduced exercise price of $0.47 per share. We have also agreed to amend certain existing warrants to purchase up to an aggregate of 2,000,000 shares of common stock that were previously issued in November 2023 and have an exercise price of $1.5675 per share such that the amended warrants will have a reduced exercise price of $0.47 per share effective upon the closing of the offering and will be exercisable beginning on the effective date of Stockholder Approval.

On August 27, 2024, we announced receipt of a $14 million multi-year grant from the NIH and National Institute on Drug Abuse (NIDA) for the continued development of PF614-MPAR, an abuse-deterrent opioid with overdose protection that received Breakthrough Therapy designation from the FDA in January 2024. Funding from this award will be available over a period of approximately three years, On that same day we announced that we had received Investigational Review Board ("IRB") approval of the PF614-MPAR-102 protocol, "A Single and Multiple Dose Study to Evaluate the Pharmacokinetics of Oxycodone and PF614 when PF614 capsule is Co-Administered with Nafamostat as a combination Immediate Release solution and Extended-Release Capsule Formulation in Healthy Subjects."

On August 20, 2024, we received notice from the Listing Qualifications Department of The Nasdaq Stock Market LLC ("Nasdaq") stating that due to the Company's non-compliance with the $2.5 million stockholders' equity requirement set forth in Nasdaq Listing Rule 5550(b)(1) as of June 30, 2024, we are subject to delisting unless we timely request a hearing before the Nasdaq Hearings Panel (the "Panel"). The Company timely requested a hearing before the Panel, which request will stay any further action by Nasdaq pending the conclusion of the hearing process.

On May 24, 2024, we were notified by Nasdaq that we had regained compliance with the equity requirement in Nasdaq Listing Rule 5550(b)(1). Nasdaq stated that we must remain in compliance with all of Nasdaq's listing requirements. We are not in compliance with all of Nasdaq's listing requirements and there can be no assurance that we will be able to regain and maintain compliance with Nasdaq's listing requirements.

On March 27, 2024, we received a notice (the "Deficiency Letter") from Nasdaq stating that we were not in compliance with Nasdaq Listing Rule 5550(a)(2) because the bid price for our common stock had closed below $1.00 per share for the previous 30 consecutive business days. Nasdaq requires that our common stock have a minimum bid price of at least $1 per share (the "Minimum Bid Price").

In accordance with Nasdaq listing rule 5810(c)(3)(A), we have 180 calendar days, or until September 23, 2024, to regain compliance. The Deficiency Letter states that to regain compliance, the bid price for our common stock must close at the Minimum Bid Price for a minimum of ten consecutive business days during the compliance period ending September 23, 2024. The Deficiency Letter does not explicitly address that the Nasdaq staff may require a longer period for compliance with the Minimum Bid Price in some circumstances, but generally not more than 20 consecutive business days.

With respect to the Minimum Bid Price, if we do not regain compliance by September 23, 2024, Nasdaq staff will provide written notice to us that our securities are subject to delisting. At that time, we may appeal any such delisting determination to a Nasdaq hearings panel. There can be no assurance that an appeal would be successful.

The Deficiency Letter had no immediate effect on the listing of our common stock, and our common stock continues to trade on the Nasdaq Capital Market under the symbol "ENSC."

Risks Associated with Our Business and this Offering

Our business is subject to numerous risks and uncertainties, including those highlighted in the section entitled "Risk Factors" immediately following this prospectus supplement summary and under similar sections of the accompanying prospectus and other periodic reports incorporated herein and therein by reference. Please also carefully read the section below entitled "Cautionary Note Regarding Forward-Looking Statements."

- our common stock may be delisted from Nasdaq;
- we need to raise substantial additional capital after this offering to complete the development and commercialization of our product candidates;
- our ability to continue as a going concern for the next twelve months;
- our lead product candidate PF614 and PF614-MPAR may not be successful in limiting or impeding abuse, overdose, or misuse or providing additional safety in their development or upon commercialization;
- the potential product candidates that we develop may not progress through clinical development or receive required regulatory approvals within expected timelines or at all;
- clinical trials may not confirm any necessary safety, potency, or other product characteristics;
- we may have overestimated the size of the target market, patients' willingness to try new therapies, and the willingness of physicians to prescribe these therapies;
- the loss of key members of our management team; and
- we may be unable to obtain and maintain sufficient intellectual property protection for our product candidates or we may infringe the intellectual property protection of others.

Implications of Being a Smaller Reporting Company

We are a "smaller reporting company" as defined in Item 10(f)(1) of Regulation S-K. Smaller reporting companies may take advantage of certain reduced disclosure obligations, including, among other things, providing only two years of audited financial statements. We will remain a smaller reporting company until the last day of the fiscal year in which (i) the market value of our common stock held by non-affiliates exceeds $250 million as of the prior June 30th, or (ii) our annual revenues exceeded $100 million during such completed fiscal year and the market value of our common stock held by non-affiliates exceeds $700 million as of the prior June 30th.

THE OFFERING

Issuer	Ensysce Biosciences, Inc.
Securities offered by us	2,490,798 shares of common stock Pre-funded Warrants to purchase up to 1,062,396 shares of common stock at an exercise price of $0.0001 per share. Each Pre-funded Warrant will be exercisable immediately upon issuance and will not expire until exercised in full. This prospectus supplement also relates to the offering of the shares of common stock issuable upon exercise of such Pre-funded Warrants. There is no established public trading market for the Pre-funded Warrants, and we do not expect a market to develop. In addition, we do not intend to list the Pre-funded Warrants on the Nasdaq Capital Market or any other nationally recognized trading system. See "Description of the Pre-funded Warrants" for a discussion of the terms of the Pre-funded Warrants.
Offering price	$0.47 per share of common stock and $0.4699 per Pre-funded Warrant
Common stock to be outstanding immediately after the offering	12,370,510 shares (if we sell the maximum number of shares of common stock and Pre-funded Warrants offered in this offering and excluding the shares issuable upon the exercise of the Warrants to be issued in the concurrent private placement and warrants to be issued to the placement agent).
Concurrent private placement of Warrants	In a concurrent private placement, we are selling to investors in this offering Warrants to purchase up to an additional 7,106,388 shares of our common stock, which represent 200% of the number of shares of our common stock and Pre-funded Warrants purchased in this offering. Each Warrant will be exercisable for one share of our common stock at an exercise price of $0.47 per share, will be exercisable beginning on the date of Stockholder Approval and 3,553,194 of those Warrants will have a term of eighteen months from the date of Stockholder Approval and the remaining 3,553,194 of those Warrants will have a term of five years from the date of Stockholder Approval. The Warrants and the Warrant Shares are being offered pursuant to the exemptions provided in Section 4(a)(2) under the Securities Act and Rule 506(b) promulgated thereunder, and they are not being offered pursuant to this prospectus supplement and the accompanying prospectus. There is no established public trading market for the Warrants and we do not expect a market to develop. In addition, we do not intend to list the Warrants on the Nasdaq Capital Market, any other national securities exchange or any other nationally recognized trading system.
Use of proceeds	We expect to receive net proceeds from this offering of approximately $1.4 million after deducting the placement agent fees and other offering expenses payable by us. We intend to use the net proceeds from this offering for general corporate purposes, including continuing to conduct clinical trials for our lead products, and providing working capital. See "Use of Proceeds."
Dividend Policy	We have never paid cash dividends on our common stock. We currently anticipate that we will retain future earnings, if any, for the development, operation and expansion of our business and do not anticipate declaring or paying any cash dividends for the foreseeable future. See "Dividend Policy."
Risk Factors:	Investing in our securities involves a high degree of risk. You should read the "Risk Factors" section beginning on page S-5 of this prospectus supplement, page 5 of the accompanying prospectus and in the documents incorporated by reference in this prospectus supplement for a discussion of factors to consider before deciding to invest in our securities.
Nasdaq Capital Market symbol	ENSC

The number of shares of common stock to be outstanding after the offering is based on 8,817,316 shares of common stock outstanding as of August 27, 2024, and excludes, as of that date, the following:

- 11,000,396 shares issuable upon the exercise of warrants, with a weighted-average exercise price of $17.95 per share;
- 581,314 shares issuable upon exercise of stock options outstanding under our 2021 Omnibus Incentive Plan;

- 159,416 shares reserved for future issuance under our 2021 Omnibus Incentive Plan.

RISK FACTORS

An investment in our securities involves a high degree of risk. Before deciding whether to invest in our securities, you should consider carefully the following risk factors and the risk factors included in our most recent Annual Report on Form 10-K filed with the SEC, any subsequent Quarterly Reports on Form 10-Q as well as all other information contained and incorporated by reference in this prospectus supplement and the accompanying prospectus, including our consolidated financial statements and the related notes. If any of these risks occurs, our business, financial condition, results of operations or cash flow could be materially harmed. This could cause the trading price of our common stock to decline, resulting in a loss of all or part of your investment. The risks and uncertainties described below are not the only ones facing us. Additional risks and uncertainties not presently known to us, or that we currently see as immaterial, may also harm our business. Please also read carefully the section below entitled "Cautionary Note Regarding Forward-Looking Statements."

Risks Related to this Offering and Our Common Stock

If we are unable to regain and maintain compliance with the listing standards of Nasdaq, our common stock may become delisted, which could have a material adverse effect on our ability to raise funding, which could negatively impact our business, capital and financial condition.

On March 27, 2024, we received a notice (the "Deficiency Letter") from the listing qualifications department staff of The Nasdaq Stock Market ("Nasdaq") stating that we were not in compliance with Nasdaq Listing Rule 5550(a)(2) because the bid price for our common stock had closed below $1.00 per share for the previous 30 consecutive business days. Nasdaq requires that our common stock have a minimum bid price of at least $1 per share (the "Minimum Bid Price").

In accordance with Nasdaq listing rule 5810(c)(3)(A), we have 180 calendar days, or until September 23, 2024, to regain compliance. The Deficiency Letter states that to regain compliance, the bid price for our common stock must close at the Minimum Bid Price for a minimum of ten consecutive business days during the compliance period ending September 23, 2024. The Deficiency Letter does not explicitly address that the Nasdaq staff may require a longer period for compliance with the Minimum Bid Price in some circumstances, but generally not more than 20 consecutive business days.

With respect to the Minimum Bid Price, if we do not regain compliance by September 23, 2024, Nasdaq staff will provide written notice to us that our securities are subject to delisting. At that time, we may appeal any such delisting determination to a Nasdaq hearings panel. There can be no assurance that an appeal would be successful.

The Deficiency Letter had no immediate effect on the listing of our common stock, and our common stock continues to trade on the Nasdaq Capital Market under the symbol "ENSC."

On May 24, 2024, we were notified by the Listing Qualifications staff of The Nasdaq Stock Market LLC ("Nasdaq") that the Company had regained compliance with the $2.5 million stockholders' equity requirement set forth in Nasdaq Listing Rule 5550(b)(1). Nasdaq stated that the Company must remain in compliance with all of Nasdaq's listing requirements. This notification did not address the Deficiency Letter. As described in the Deficiency Letter, we are not in compliance with all of Nasdaq's listing requirements and there can be no assurance that we will be able to regain and maintain compliance with Nasdaq's listing requirements.

On August 20, 2024, we were notified by Nasdaq that, due to the Company's non-compliance with the $2.5 million stockholders' equity requirement set forth in Nasdaq Listing Rule 5550(b)(1) as of June 30, 2024, we are subject to delisting unless we timely request a hearing before the Nasdaq Hearings Panel (the "Panel"). The Company timely requested a hearing before the Panel, which request will stay any further action by Nasdaq pending the conclusion of the hearing process.

As a result, there can be no assurance that our common stock will not be delisted by Nasdaq, which delisting could have a material adverse effect on us. Upon any delisting, our common stock could become subject to the regulations of the SEC relating to the market for penny stocks. Penny stocks are securities with a price of less than $5.00 per share unless (i) the securities are traded on a "recognized" national exchange or (ii) the issuer has net tangible assets less than $2,000,000 (if the issuer has been in continuous operation for at least three years) or $5,000,000 (if in continuous operation for less than three years), or with average annual revenues of less than $6,000,000 for the last three years.

The procedures applicable to penny stocks requires a broker-dealer to (i) obtain from the investor information concerning his financial situation, investment experience and investment objectives; (ii) reasonably determine, based on that information, that transactions in penny stocks are suitable for the investor and that the investor has sufficient knowledge and experience as to be reasonably capable of evaluating the risks of penny stock transactions; (iii) provide the investor with a written statement setting forth the basis on which the broker-dealer made the determination in (ii) above; and (iv) receive a signed and dated copy of such statement from the investor, confirming that it accurately reflects the investor's financial situation, investment experience and investment objectives. The regulations applicable to penny stocks may severely affect the market liquidity for our common stock and could limit the ability of stockholders to sell their common stock in the secondary market.

We need to raise additional capital after this offering to support our operations.

We have incurred substantial losses since our inception. Net losses and negative cash flows have had, and will continue to have, an adverse effect on our stockholders' equity and working capital. We expect to continue to incur significant losses for the foreseeable future as we continue our research and development of, and seek regulatory approvals for, our product candidates.

Our current cash on hand is sufficient to fund operations into the third quarter of 2024. The report of our independent registered public accounting firm on our financial statements for the years ended December 31, 2023, and 2022 contains explanatory language that substantial doubt exists about our ability to continue as a going concern. We have reduced expenses because we do not have access to sufficient cash and liquidity to finance our business operations as currently contemplated and may be compelled to reduce further general and administrative expenses and delay research and development projects until we are able to obtain sufficient financing. We may find it difficult to raise money on terms favorable to us or at all. The failure to obtain sufficient capital to support our operations would have a material adverse effect on our business, financial condition and results of operations. If sufficient financing is not received timely, we would then need to pursue a plan to license or sell assets, seek to be acquired by another entity, cease operations and/or seek bankruptcy protection.

If you purchase our securities in this offering, you may experience future dilution as a result of future equity offerings or other equity issuances.

To raise additional capital, we will need to offer and issue additional shares of our common stock or other securities convertible into or exchangeable for our common stock in the future. We cannot assure you that we will be able to sell shares or other securities in any other offering at a price per share that is equal to or greater than the price per share paid by investors in this offering, and investors purchasing other securities in the future could have rights superior to existing stockholders. The price per share at which we sell additional shares of our common stock or other securities convertible into or exchangeable for our common stock in future transactions may be higher or lower than the price per share in this offering.

In addition, we have a significant number of warrants and stock options outstanding. Further, we may choose to raise additional capital due to market conditions or strategic considerations even if we believe we have sufficient funds for our current or future operating plans.

The market price of our common stock and the trading volume of our common stock has been and may continue to be, highly volatile, and such volatility could cause the market price of our common stock to decrease.

During the past year, the market price of our common stock fluctuated from a low of $0.361 per share to a high of $2.06 per share, and our stock price continues to fluctuate. The market price and trading volume of our common stock may continue to fluctuate significantly in response to numerous factors, some of which are beyond our control, such as:

- our ability to grow our revenue and customer base;
- The announcement or the market introduction of new products or product enhancements by us or our competitors;
- the trading volume of our common stock;
- developments concerning regulatory oversight and approvals;
- variations in our and our competitors' results of operations;
- changes in earnings estimates or recommendations by securities analysts, if our common stock is covered by analysts;
- successes or challenges in our collaborative arrangements or alternative funding sources;
- developments in the health care and life science industries;
- the results of product liability or intellectual property lawsuits;
- adverse effects on our business condition and results of operations from general economic and market conditions and overall fluctuations in the United States and international markets, including deteriorating market conditions due to investor concerns regarding inflation and Russia's war on Ukraine and the armed conflict between Israel and neighboring countries;

- future issuances of common stock or other securities;
- the addition or departure of key personnel;
- announcements by us or our competitors of acquisitions, investments or strategic alliances; and
- general market conditions and other factors, including factors unrelated to our operating performance.

Further, the stock market in general and micro-cap clinical trial pharmaceutical issuers in particular, have recently experienced extreme price and volume fluctuations. Continued market fluctuations could result in extreme volatility in the price of our common stock, which could cause a decline in the value of our common stock and the loss of some or all of your investment.

The Pre-funded Warrants are not listed for trading on any exchange, and we do not expect a market to develop for the Pre-funded Warrants.

There is no established public trading market for the Pre-funded Warrants, and we do not expect a market to develop. In addition, we do not intend to apply for listing the Pre-funded Warrants on any national securities exchange or other trading market. Without an active market, the liquidity of the Pre-funded Warrants will be limited. Further, the existence of the Pre-funded Warrants and Warrants may act to reduce both the trading volume and the trading price of our common stock.

The Pre-funded Warrants are speculative in nature and do not entitle the holder to any rights as common stockholders until the holder exercises the warrant for shares of our common stock, except as set forth in the Pre-funded Warrants.

Except as otherwise provided in the Pre-funded Warrants, until holders of Pre-funded Warrants acquire shares of common stock upon exercise of the Pre-funded Warrants, holders of Pre-funded Warrants will have no rights with respect to our common stock underlying such Pre-funded Warrants. Upon exercise of the Pre-funded Warrants, the holders will be entitled to exercise the rights of a stockholder only as to matters for which the record date occurs after the exercise date. Moreover, following this offering, the market value of the Pre-funded Warrants is uncertain. There can be no assurance that the market price of our common stock will ever equal or exceed the price of the Pre-funded Warrants, and, consequently, whether it will ever be profitable for investors to exercise their Pre-funded Warrants.

Provisions of the Pre-funded Warrants could discourage an acquisition of us by a third party.

Certain provisions of the Pre-funded Warrants offered by this prospectus could make it more difficult or expensive for a third party to acquire us. The Pre-funded Warrants prohibit us from engaging in certain transactions constituting "fundamental transactions" unless, among other things, the surviving entity assumes our obligations under the Pre-funded Warrants. These and other provisions of the Pre-funded Warrants offered by this prospectus could prevent or deter a third party from acquiring us even where the acquisition could be beneficial to stockholders.

CAUTIONARY NOTE REGARDING FORWARD-LOOKING STATEMENTS

This prospectus supplement, accompanying prospectus and the information incorporated by reference in this prospectus supplement and accompanying prospectus contain statements that express our opinions, expectations, beliefs, plans, objectives, assumptions, or projections regarding future events or future results and therefore are, or may be deemed to be, "*forward-looking statements*." These forward-looking statements involve substantial risks and uncertainties. In some cases, you can identify forward-looking statements by terms such as "anticipate," "believe," "continue," "could," "estimate," "expect," "intend," "may," "might," "objective," "ongoing," "plan," "potential," "predict," "project," "should," "will" and "would," or the negative of these terms or other similar expressions intended to identify statements about the future. We have based these forward-looking statements largely on our current expectations and projections about future events and financial trends that we believe may affect our business, financial condition, results of operations, prospects, growth, strategies and the markets in which we operate. These forward-looking statements include, without limitation, statements about:

- the risk that our common stock will be delisted from Nasdaq because we may not be able to regain or maintain compliance with applicable listing standards of Nasdaq;
- our estimates regarding expenses, revenue, capital requirements and timing and availability of and the need for additional financing will almost certainly not match actual amounts and timing;
- our ability to continue as a going concern for the next twelve months;
- the risk that our lead product candidate PF614 and PF614-MPAR may not be successful in limiting or impeding abuse, overdose, or misuse or providing additional safety upon commercialization;
- the need for substantial additional funding to complete the development and commercialization of our product candidates;
- the risk that our clinical trials may fail to replicate positive results from earlier preclinical studies or clinical trials conducted by us or third parties;
- the risk that the potential product candidates that we develop may not progress through clinical development or receive required regulatory approvals within expected timelines or at all;
- the risk that clinical trials may not confirm any safety, potency, or other product characteristics described or assumed in this Quarterly Report on Form 10-Q;
- the risk that we will be unable to successfully market or gain market acceptance of our product candidates;
- the risk that our product candidates may not be beneficial to patients or successfully commercialized;
- we may have overestimated the size of the target market, patients' willingness to try new therapies, and the willingness of physicians to prescribe these therapies;
- effects of competition;

- third parties on which we depend for laboratory, clinical development, manufacturing, and other critical services will fail to perform satisfactorily;
- we may be unable to obtain and maintain sufficient intellectual property protection for its investigational products or will infringe the intellectual property protection of others;
- the loss of key members of our management team;
- changes in our regulatory environment;
- the ability to attract and retain key scientific, medical, commercial, or management personnel;
- changes in our industry;
- our ability to remediate any material weaknesses or establish and maintain effective internal controls over financial reporting;
- other factors disclosed in this prospectus supplement, accompanying prospectus and information incorporated by reference in this prospectus supplement and accompanying prospectus; and
- other factors beyond our control.

The forward-looking statements contained in this prospectus, prospectus supplement and information incorporated by reference are based on our current expectations and beliefs concerning future developments and their potential effects on our company. There can be no assurance that future developments affecting us will be those that we have anticipated. These forward-looking statements involve several risks, uncertainties (some of which are beyond our control) or other assumptions that may cause actual results or performance to be materially different from those expressed or implied by these forward-looking statements. These risks and uncertainties include, but are not limited to, those factors described under the heading "*Risk Factors*" in this prospectus and prospectus supplement and the information incorporated by reference. Should one or more of these risks or uncertainties materialize, or should any of the assumptions prove incorrect, actual results may vary in material respects from those projected in these forward-looking statements. We will not undertake any obligation to update or revise any forward-looking statements, whether as a result of new information, future events or otherwise, except as may be required under applicable securities laws.

MARKET PRICE AND TICKER SYMBOL

Our common stock is currently listed on the Nasdaq Stock Market under the symbol "*ENSC*." Our Public Warrants are currently listed on the OTC Pink Open Market under the symbol "*ENSCW*." The closing price of our common stock and Public Warrants on August 27, 2024, was $0.6444 and $0.0175, respectively. As of August 27, 2024, there were approximately 73 holders of record of our common stock. The number of record holders was determined from the records of our transfer agent and does not include beneficial owners of common stock whose shares are held in the names of various security brokers, dealers, and registered clearing agencies.

DIVIDEND POLICY

We have not paid any cash dividends on our common stock to date. We may retain future earnings, if any, for future operations, expansion and debt repayment and has no current plans to pay cash dividends for the foreseeable future. Any decision to declare and pay dividends in the future will be made at the discretion of the Board and will depend on, among other things, our results of operations, financial condition, cash requirements, contractual restrictions and other factors that the Board may deem relevant. In addition, our ability to pay dividends may be limited by covenants of any existing and future outstanding indebtedness we or our subsidiaries incur or the terms of other equity financings. We do not anticipate declaring any cash dividends to holders of our common stock in the foreseeable future.

USE OF PROCEEDS

We expect to receive net proceeds from the sale of common stock and Pre-funded Warrants in this offering of approximately $1.4 million, after deducting the placement agent fees and offering expenses payable by us, excluding the proceeds we may receive from the exercise of the Warrants issued in the concurrent private placement and the warrants to be issued to the placement agent as compensation.

We intend to use the net proceeds from this offering for general corporate purposes, which may include continued development of our TAAP and MPAR® programs and for working capital.

Except as noted above, we have not determined the amounts we plan to spend on any of the areas listed above or the timing of these expenditures. As a result, our management will have broad discretion to allocate the net proceeds from this offering. Pending application of the net proceeds as described above, we intend to invest the net proceeds to us from this offering in a variety of capital preservation investments, including short-term, investment-grade and interest-bearing instruments. An investor will not have the opportunity to evaluate the economic, financial, or other information on which we base our decisions on how to use the proceeds.

DILUTION

If you invest in our common stock or Pre-funded Warrants, your ownership interest will be diluted to the extent of the difference between the price per share you pay in this offering and the as adjusted net tangible book value per share of our common stock immediately after giving effect to this offering, assuming no value is attributed to the Warrants issued in the concurrent private placement.

Our net tangible book value as of June 30, 2024 was approximately $1.5 million, or approximately $0.18 per share of common stock. Our net tangible book value is the amount of our total tangible assets less our liabilities. Net tangible book value per share is our net tangible book value divided by the number of shares of common stock outstanding as of June 30, 2024. Dilution with respect to net tangible book value per share represents the difference between the amount per share paid by purchasers of shares of common stock in this offering and the net tangible book value per share of our common stock immediately after this offering.

After giving effect to the sale of 2,490,798 shares of common stock and 1,062,396 Pre-funded Warrants in this offering at an offering price of $0.47 per share of common stock and $0.4699 per Pre-funded Warrant, and after deducting placement agent fees and offering expenses payable by us, our as adjusted net tangible book value as of June 30, 2024 would have been approximately $2.9 million, or approximately $0.24 per share of common stock. This amount represents an immediate increase in as adjusted net tangible book value of $0.06 per share to our existing stockholders and an immediate dilution of $0.23 per share to investors participating in this offering. We determine dilution per share to investors participating in this offering by subtracting as adjusted net tangible book value per share after giving effect to this offering from the assumed combined public offering price per share, Pre-funded Warrant and accompanying warrant paid by investors participating in this offering.

The following table illustrates this dilution to new investors on a per share basis:

Offering price per share		$ 0.47
Net tangible book value per share as of June 30, 2024	$ 0.18	
Increase in net tangible book value per share attributable to this offering	0.06	
As adjusted net tangible book value per share after giving effect to this offering		0.24
Dilution per share to new investors in this offering		$ 0.23

The number of shares of common stock to be outstanding after the offering is based on 8,151,172 shares of common stock outstanding as of June 30, 2024, and excludes, as of that date, the following:

- 7,455,627 shares issuable upon the exercise of warrants issued in a February 2024 transaction, with a weighted-average exercise price of $1.08 per share;
- 2,443,187 shares issuable upon the exercise of warrants issued in convertible notes in 2023, with a weighted-average exercise price of $1.57 per share;
- 549,993 shares issuable upon the exercise of warrants issued in a December 2022 transaction, with a weighted average exercise price of $12.81 per share;
- 318,451 shares issuable upon the exercise of warrants issued in a February 2023 transaction, with a weighted-average exercise price of $8.84 per share;
- 126,061 shares issuable upon the exercise of warrants issued in a May 2023 transaction, with a weighted-average exercise price of $4.86;
- 43,418 shares issuable upon the exercise of the Prior Warrants, with a weighted-average exercise price of $3.64 per share;
- 41,666 shares issuable upon the exercise of the Public Warrants, with a weighted-average exercise price of $2,760.00 per share;
- 21,993 shares issuable upon the exercise of the LACQ Warrants, with a weighted-average exercise price of $2,725.90 per share;
- 4,608 shares issuable upon the exercise of the GEM Warrants, with a weighted-average exercise price of $1.06 per share;
- 581,315 shares issuable upon exercise of stock options outstanding under our 2021 Omnibus Incentive Plan;
- 2,112 shares reserved for future issuance under our 2021 Omnibus Incentive Plan.

Subsequent to June 30, 2024, additional shares potentially issuable were as follows:

- 1,062,396 shares issuable upon the exercise of Pre-funded Warrants issued in this offering, with an exercise price of $0.4699 per share; and
- 7,106,388 shares issuable upon the exercise of the warrants potentially issuable as a result of this offering, with an exercise price of $0.47 per share.
- 21,610,512 shares issuable upon the exercise of warrants potentially issuable as a result of a private placement that occurred at or about the same time as this offering, with an exercise price of $0.47 per share.

To the extent that outstanding exercisable options or warrants are exercised, 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 we have sufficient funds for our current or future operating plans. To the extent that we raise additional capital by issuing equity or convertible debt securities, your ownership will be further diluted.

DESCRIPTION OF THE PRE-FUNDED WARRANTS

The following summary of certain terms and provisions of the Pre-funded Warrants that are being offered hereby is not complete and is subject to, and qualified in its entirety by the provisions of, the Pre-funded Warrants. You should carefully review the terms and provisions of the form of the Pre-funded Warrant for a complete description of the terms and conditions of the Pre-funded Warrants.

The term "pre-funded" refers to the fact that the purchase price of our common stock in this offering includes almost the entire exercise price that will be paid under the Pre-funded Warrants, except for a nominal remaining exercise price of $0.4699. The purpose of the Pre-funded Warrants is to enable investors that may have restrictions on their ability to beneficially own more than 4.99% (or, upon election of the holder, 9.99%) of our outstanding common stock following the consummation of this offering the opportunity to make an investment in the Company without triggering their ownership restrictions, by receiving Pre-funded Warrants in lieu of our common stock which would result in such ownership of more than 4.99% (or 9.99%), and receive the ability to exercise their option to purchase the shares underlying the Pre-funded Warrants at such nominal price at a later date.

Duration and Exercise Price. The Pre-funded Warrants offered hereby will entitle the holder thereof to purchase up to an aggregate of 1,062,396 shares of our common stock at an exercise price of $0.0001 per share, commencing immediately on the date of issuance until exercised in full. The Pre-funded Warrants will be issued separately from the common stock and may be transferred separately immediately thereafter.

Exercisability. The Pre-funded Warrants will be exercisable, at the option of each holder, in whole or in part, by delivering to us a duly executed exercise notice accompanied by payment in full for the number of shares of common stock purchased upon such exercise (except in the case of a cashless exercise as discussed below). A holder (together with

its affiliates) may not exercise any portion of such holder's warrants to the extent that the holder would own more than 4.99% (or, at the election of the holder, 9.99%) of our outstanding shares of common stock immediately after exercise, except that upon notice from the holder to us, the holder may increase or decrease the amount of ownership of outstanding shares of common stock after exercising the holder's Pre-funded Warrants up to 9.99% of the number of shares of common stock outstanding immediately after giving effect to the exercise, as such percentage ownership is determined in accordance with the terms of the Pre-funded Warrants, provided that any increase in this limitation shall not be effective until 61 days after notice to us.

Cashless Exercise. In lieu of making the cash payment otherwise contemplated to be made to us upon the exercise of a Pre-funded Warrant in payment of the aggregate exercise price, the holder may elect instead to receive upon such exercise (either in whole or in part) the net number of shares of common stock determined according to a formula set forth in the Pre-funded Warrant.

Exercise Price Adjustment. The exercise price of the Pre-funded Warrants is subject to appropriate adjustment in the event of certain stock dividends and distributions, stock splits, stock combinations, reclassifications or similar events affecting our common stock.

Fundamental Transaction. In the event of any fundamental transaction, as described in the Pre-funded Warrants and generally including any merger with or into another entity, sale of all or substantially all of our assets, tender offer or exchange offer, reclassification of our shares of common stock or acquisition of more than 50% of the voting power represented by our common stock, then upon any subsequent exercise of a Pre-funded Warrant, the holder will have the right to receive as alternative consideration, for each share of common stock that would have been issuable upon such exercise immediately prior to the occurrence of such fundamental transaction, the number of shares of common stock of the successor or acquiring corporation or of our Company, if it is the surviving corporation, and any additional consideration receivable upon or as a result of such transaction by a holder of the number of shares of common stock for which the Pre-funded Warrant is exercisable immediately prior to such event.

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

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

Exchange Listing. There is no established trading market for the Pre-funded Warrants, and we do not expect a market to develop. In addition, we do not intend to apply for the listing of the Pre-funded Warrants on any national securities exchange or other trading market. Without an active trading market, the liquidity of the Pre-funded Warrants will be limited.

Rights as a Stockholder. Except as otherwise provided in the Pre-funded Warrants or by virtue of such holder's ownership of shares of our common stock, the holder of a Pre-funded Warrant does not have the rights or privileges of a holder of our common stock, including any voting rights, until the holder exercises the Pre-funded Warrant.

PRIVATE PLACEMENT OF WARRANTS

In a concurrent private placement, we are selling to each of the investors in this offering a Warrant to purchase one share of common stock for each share of common stock purchased in this offering by each such investor. The aggregate number of Warrant Shares exercisable pursuant to the Warrants is 7,106,388. The Warrants will be exercisable at an exercise price of $0.47 per share. The exercise price and number of Warrant Shares issuable upon the exercise of the Warrants will be subject to adjustment in the event of any stock dividend and split, reverse stock split, recapitalization, reorganization, or similar transaction, as described in the Warrants.

Each Warrant shall be exercisable beginning on the date of Stockholder Approval. Of those 7,106,388 Warrants, 3,553,194 have a term of exercise equal to eighteen months from the date of Stockholder Approval and the remaining 3,553,194 Warrants have a term of exercise equal to five years from the date of Stockholder Approval. A holder of Warrants will have the right to exercise the Warrants on a "cashless" basis if there is no effective registration statement registering the resale of the Warrant Shares. Subject to limited exceptions, a holder of Warrants will not have the right to exercise any portion of its Warrants if the holder, together with its affiliates, would beneficially own in excess of 4.99% (or 9.99% at the election of the holder prior to the date of issuance) of the number of shares of our common stock outstanding immediately after giving effect to such exercise, provided that the holder may increase or decrease the beneficial ownership limitation up to 9.99%. Any increase in the beneficial ownership limitation shall not be effective until 61 days following notice of such change to the Company.

Except as otherwise provided in the Warrants or by virtue of such holder's ownership of shares of our common stock, the holders of the Warrants do not have the rights or privileges of holders of our common stock, including any voting rights, until they exercise their Warrants.

The Warrants and the Warrant Shares are being offered pursuant to the exemptions provided in Section 4(a)(2) under the Securities Act and Rule 506(b) promulgated thereunder, and they are not being offered pursuant to this prospectus supplement and the accompanying prospectus.

There is no established public trading market for the Warrants and we do not expect a market to develop. In addition, we do not intend to list the Warrants on the Nasdaq Capital Market, any other national securities exchange or any other nationally recognized trading system. All purchasers are required to be "accredited investors" as such term is defined in Rule 501(a) under the Securities Act.

PLAN OF DISTRIBUTION

We have engaged H.C. Wainwright & Co., LLC ("Wainwright" or the "placement agent"), to act as our exclusive placement agent to solicit offers to purchase the shares of our common stock and Pre-funded Warrants offered by this prospectus supplement and the accompanying base prospectus. Wainwright is not purchasing or selling any such shares or Pre-funded Warrants, nor is it required to arrange for the purchase and sale of any specific number or dollar amount of such shares or Pre-funded Warrants, other than to use its "reasonable best efforts" to arrange for the sale of such shares and Pre-funded Warrants by us. Therefore, we may not sell all of the shares of our common stock and Pre-funded Warrants being offered. The terms of this offering were subject to market conditions and negotiations between us, Wainwright, and prospective investors. Wainwright will have no authority to bind us by virtue of the engagement letter we have executed. We have entered into securities purchase agreements directly with certain institutional and accredited investors who have agreed to purchase shares of our common stock and Pre-funded Warrants in this offering. We will only sell to investors who have entered into securities purchase agreements.

Delivery of the shares of common stock and Pre-funded Warrants offered hereby is expected to take place on or about August 29, 2024, subject to satisfaction of certain closing conditions.

We have agreed to pay the placement agent (i) a total cash fee equal to 7.0% of the aggregate gross proceeds of this offering, (ii) accountable expenses of $50,000, (iii) non-accountable expenses of $35,000, and (iii) $15,950 for the clearing expenses of the placement agent in connection with this offering.

We estimate the total expenses of this offering paid or payable by us will be approximately $0.3 million. After deducting the fees due to the placement agent and our expenses in connection with this offering, we expect the net proceeds from this offering will be approximately $1.4 million.

Placement Agent Warrants

In addition, we have agreed to issue to the placement agent, at the closing of this offering, warrants to purchase 7.0% of the number of shares of our common stock and Pre-funded Warrants sold in this offering (or warrants to purchase up to 752,969 shares of our common stock). Such warrants will have substantially the same terms as the warrants being sold and issued in the private placement, except that the placement agent's warrants will have an exercise price equal to 125% of the offering price per share (or $0.5875 per share) and will expire five years from the commencement of sales in this offering. Neither the placement agent's warrants nor the shares of our common stock issuable upon exercise thereof are being registered hereby.

Indemnification

We have agreed to indemnify the placement agent against certain liabilities, including liabilities under the Securities Act and liabilities arising from breaches of representations and warranties contained in our engagement letter with the placement agent. We have also agreed to contribute to payments the placement agent may be required to make in respect of such liabilities.

In addition, we will indemnify the purchasers of shares of our common stock in this offering against liabilities arising out of or relating to (i) any breach of any of the representations, warranties, covenants or agreements made by us in the securities purchase agreement or related documents or (ii) any action instituted against a purchaser by a third party (other than a third party who is affiliated with such purchaser) with respect to the securities purchase agreement or related documents and the transactions contemplated thereby, subject to certain exceptions.

Right of First Refusal

We have also granted Wainwright, subject to certain exceptions, a right of first refusal for a period of twelve (12) months following the closing of this offering to act as sole book-runner, sole manager, sole underwriter, sole placement agent or sole agent for every future debt financing or refinancing and public or private equity offering or acquisition or disposition by us or any of our subsidiaries.

Tail Financing Payments

We have also agreed to pay the placement agent a tail fee equal to the cash and warrant compensation in this offering, if any investor, who was contacted by the placement agent during the term of its engagement, provides us with capital in any public or private offering or other financing or capital raising transaction during the 12-month period following the termination or expiration of our engagement of the placement agent.

Other Relationships

From time to time, Wainwright may provide in the future various advisory, investment and commercial banking and other services to us in the ordinary course of business, for which they have received and may continue to receive customary fees and commissions. However, except as disclosed in this prospectus supplement, we have no present arrangements with Wainwright for any further services. The placement agent also acted as our placement agent in connection with our February 2024 warrant inducement, for which it received compensation.

Regulation M Compliance

The placement agent may be deemed to be an underwriter within the meaning of Section 2(a)(11) of the Securities Act, and any commissions received by it and any profit realized on the sale of our shares of common stock offered hereby by it while acting as principal might be deemed to be underwriting discounts or commissions under the Securities Act. The placement agent will be required to comply with the requirements of the Securities Act and the Exchange Act, including, without limitation, 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 agent. Under these rules and regulations, the placement agent may not (i) engage in any stabilization activity in connection with our securities; and (ii) 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.

Trading Market

Our common stock is listed on the Nasdaq Capital Market under the symbol "ENSC."

Lock-up Agreements

We, and our officers and directors have agreed, subject to limited exceptions, for a period of 90 days after the closing date of this offering, not to offer, sell, contract to sell, pledge, grant any option to purchase, make any short sale or otherwise dispose of, directly or indirectly any shares of common stock or any securities convertible into or exchangeable for our common stock either owned as of the date thereof or thereafter acquired without the prior written consent of the placement agent. The placement agent may, in its sole discretion and at any time or from time to time before the termination of the lock-up period, without notice, release all or any portion of the securities subject to lock-up agreements. In addition, we have agreed to not issue any securities that are subject to a price reset based on the trading prices of our common stock or upon a specified or contingent event in the future or enter into any agreement to issue securities at a future determined price for a period of one year following the closing date of this offering, subject to an exception. The placement agent may waive this prohibition in its sole discretion and without notice.

LEGAL MATTERS

The validity of the securities offered hereby has been passed upon for us by Troutman Pepper Hamilton Sanders LLP.

EXPERTS

The consolidated financial statements of Ensysce Biosciences Inc. as of December 31, 2023 and 2022 and for the years ended, incorporated by reference in this prospectus, have been audited by Moss Adams LLP, an independent registered public accounting firm, as stated in their report (which report expresses an unqualified opinion and includes an explanatory paragraph regarding the existence of substantial doubt about the Company's ability to continue as a going concern) and such consolidated financial statements are incorporated by reference in reliance upon the report of such firm given their authority as experts in accounting and auditing.

WHERE YOU CAN FIND MORE INFORMATION; INFORMATION INCORPORATED BY REFERENCE

We have filed with the SEC a registration statement on Form S-3 under the Securities Act, of which this prospectus supplement forms a part. The rules and regulations of the SEC allow us to omit from this prospectus supplement and the accompanying prospectus certain information included in the registration statement. For further information about us and the securities we are offering under this prospectus supplement, you should refer to the registration statement and the exhibits and schedules filed with the registration statement. With respect to the statements contained in this prospectus supplement and the accompanying prospectus regarding the contents of any agreement or

any other document, in each instance, the statement is qualified in all respects by the complete text of the agreement or document, a copy of which has been filed as an exhibit to the registration statement.

We file reports, proxy statements and other information with the SEC. The SEC maintains a website that contains reports, proxy and information statements and other information regarding issuers that file electronically with the SEC. The address of the SEC's website is www.sec.gov.

We make available free of charge on or through our website at www.ensysce.com, our Annual Reports on Form 10-K, Quarterly Reports on Form 10-Q, Current Reports on Form 8-K and amendments to those reports filed or furnished pursuant to Section 13(a) or 15(d) of the Exchange Act, as soon as reasonably practicable after we electronically file such material with or otherwise furnish it to the Securities and Exchange Commission. The information on, or accessible through, our website is not part of, and is not incorporated into, this prospectus supplement or the accompanying prospectus and should not be considered part of this prospectus supplement or the accompanying prospectus.

Incorporation by Reference

The SEC's rules allow us to "incorporate by reference" information into this prospectus supplement, which means that we can disclose important information to you by referring you to another document filed separately with the SEC. The information incorporated by reference is deemed to be part of this prospectus supplement and the accompanying prospectus, and subsequent information that we file with the SEC will automatically update and supersede that information. Any statement contained in a previously filed document incorporated by reference will be deemed to be modified or superseded for purposes of this prospectus supplement and accompanying prospectus to the extent that a statement contained in this prospectus supplement, or the accompanying prospectus modifies or replaces that statement.

We incorporate by reference our documents listed below and any future filings made by us with the SEC under Sections 13(a), 13(c), 14 or 15(d) of the Exchange Act in this prospectus supplement, between the date of this prospectus supplement and the termination of the offering of the securities described in this prospectus supplement. We are not, however, incorporating by reference any documents or portions thereof, whether specifically listed below or filed in the future, that are not deemed "filed" with the SEC, including our Compensation Committee report and performance graph or any information furnished pursuant to Items 2.02 or 7.01 of Form 8-K or related exhibits furnished pursuant to Item 9.01 of Form 8-K.

This prospectus supplement and the accompanying prospectus incorporate by reference the documents set forth below that have previously been filed with the SEC:

- Our Annual Report on Form 10-K for the year ended December 31, 2023 filed with the SEC on March 15, 2024;
- Our Quarterly Reports on Form 10-Q for the quarters ended June 30, 2024, filed with the SEC on August 14, 2024, and March 31, 2024, filed with the SEC on May 13, 2024;
- Our Current Reports on Form 8-K filed with the SEC on August 23, 2024, August 14, 2024, May 28, 2024, May 9, 2024, March 29, 2024, March 15, 2024, and February 14, 2024 (in each case other than any portions thereof deemed furnished and not filed);
- All other reports filed with the SEC pursuant to Section 13(a) or 15(d) of the Exchange Act, since the end of the fiscal year covered by the Annual Report on Form 10-K referenced above; and
- The Form 8-A filed with the SEC on November 28, 2017 by our predecessor corporation, Leisure Acquisition Corp. ("LACQ"), included a description of common stock that was updated with the filing of our (i) Third Amended And Restated Certificate of Incorporation as Exhibit 3.1 to our Current Report on Form 8-K, which was filed with the SEC on July 7, and (ii) Certificate of Amendment to Third Amended and Restated Certificate of Incorporation that was filed as Exhibit 3.1(b) to our Registration Statement on Form S-1 (File No. 333-268038), which was filed with the SEC on October 28, 2022.

All reports and other documents we subsequently file pursuant to Section 13(a), 13(c), 14 or 15(d) of the Exchange Act prior to the termination of this offering, including, but excluding any information furnished to, rather than filed with, the SEC, will also be incorporated by reference into this prospectus supplement and the accompanying prospectus and deemed to be part of this prospectus supplement and the accompanying prospectus from the date of the filing of such reports and documents.

You should rely only on the information incorporated by reference or provided in this prospectus. We have not authorized anyone else to provide you with different information. You should not assume that the information in this prospectus supplement is accurate as of any date other than the date of this prospectus supplement or the date of the documents incorporated by reference in this prospectus supplement.

We will furnish without charge to you, upon written or oral request, a copy of any or all of the documents incorporated by reference, including exhibits to these documents by writing or telephoning us at the following address or phone number below. You may also access this information on our website at www.ensysce.com by viewing the "SEC Filings" subsection of the "Investors" menu. No additional information is deemed to be part of or incorporated by reference into this prospectus.

Ensysce Biosciences, Inc.
7946 Ivanhoe Avenue, Suite 201
La Jolla, California 92037
(858) 263-4196

PROSPECTUS

$75,000,000

Ensysce Biosciences, Inc.

Common Stock
Preferred Stock
Warrants
Debt Securities
Subscription Rights
Units

We may offer and sell up to $75,000,000 in the aggregate of the securities identified above from time to time in one or more offerings. This prospectus provides you with a general description of the securities.

Each time we offer and sell securities, we will provide a supplement to this prospectus that contains specific information about the offering and the amounts, prices, and terms of the securities. The supplement may also add, update or change information contained in this prospectus with respect to that offering. You should carefully read this prospectus and the applicable prospectus supplement before you invest in any of our securities.

We may offer and sell the securities described in this prospectus and any prospectus supplement to or through one or more underwriters, dealers, and agents, or directly to purchasers, or through a combination of these methods. If any underwriters, dealers or agents are involved in the sale of any of the securities, their names and any applicable purchase price, fee, commission or discount arrangement between or among them will be set forth, or will be calculable from the information set forth, in the applicable prospectus supplement. See the sections of this prospectus entitled "About this Prospectus" and "Plan of Distribution" for more information. No securities may be sold without delivery of this prospectus and the applicable prospectus supplement describing the method and terms of the offering of such securities.

INVESTING IN OUR SECURITIES INVOLVES RISKS. SEE THE "RISK FACTORS" ON PAGE 5 OF THIS PROSPECTUS AND ANY SIMILAR SECTION CONTAINED IN THE APPLICABLE PROSPECTUS SUPPLEMENT CONCERNING FACTORS YOU SHOULD CONSIDER BEFORE INVESTING IN OUR SECURITIES.

Our common stock is listed on The Nasdaq Stock Market LLC under the symbol "ENSC" and our Public Warrants are listed on the OTC Pink Open Market under the symbol "ENSCW." On January 4, 2023, the last reported sale price of our common stock on The Nasdaq Stock Market LLC was $0.81 per share and the closing sale price for our Public Warrants as reported on the OTC Pink Open Market was $0.029.

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

The date of this prospectus is January 6, 2023.

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ABOUT THIS PROSPECTUS

This prospectus is part of a registration statement that we filed with the U.S. Securities and Exchange Commission, or the SEC, using a "shelf" registration process. By using a shelf registration statement, we may sell securities from time to time and in one or more offerings up to a total dollar amount of $75,000,000 as described in this prospectus.

This prospectus provides you only with a general description of the securities that we may offer. Each time that we offer and sell securities, we will provide a prospectus supplement to this prospectus that contains specific information about the securities being offered and sold and the specific terms of that offering. We may also authorize one or more free writing prospectuses to be provided to you that may contain material information relating to these offerings. The prospectus supplement or free writing prospectus may also add, update or change information contained in this prospectus with respect to that offering. If there is any inconsistency between the information in this prospectus and the applicable prospectus supplement or free writing prospectus, you should rely on the prospectus supplement or free writing prospectus, as applicable. Before purchasing any securities, you should carefully read both this prospectus and the applicable prospectus supplement (and any applicable free writing prospectuses), together with the additional information described under the heading "Where You Can Find More Information."

We have not authorized anyone to provide you with any information or to make any representations other than those contained in, or incorporated by reference in, this prospectus, any applicable prospectus supplement or any free writing prospectuses prepared by or on behalf of us or to which we have referred you. We take no responsibility for, and can provide no assurance as to the reliability of, any other information that others may give you. We will not make an offer to sell these securities in any jurisdiction where the offer or sale is not permitted. You should assume that the information appearing in this prospectus and the applicable prospectus supplement to this prospectus is accurate only as of the date on its respective cover, that the information appearing in any applicable free writing prospectus is accurate only as of the date of that free writing prospectus, and that any information incorporated by reference is accurate only as of the date of the document incorporated by reference, unless we indicate otherwise. Our business, financial condition, results of operations and prospects may have changed since those dates.

When we refer to "Ensysce," "we," "our," "us" and the "Company" in this prospectus, we mean Ensysce Biosciences, Inc., and its consolidated subsidiaries unless otherwise specified. When we refer to "you," we mean the potential holders of the applicable series of securities.

WHERE YOU CAN FIND MORE INFORMATION

This prospectus is part of the registration statement on Form S-3 filed with the SEC under the Securities Act and does not contain all the information set forth in the registration statement. Whenever a reference is made in this prospectus to any of our contracts, agreements or other documents, the reference may not be complete and you should refer to the exhibits that are a part of the registration statement or the exhibits to the reports or other documents incorporated herein by reference for a copy of such contract, agreement or other document.

We are currently subject to the reporting requirements of the Exchange Act, and in accordance therewith files periodic reports, proxy statements and other information with the SEC. Our SEC filings are available to you on the SEC's website at http://www.sec.gov and in the "Investors" section of our website at www.ensysce.com. Our website and the information contained on that site, or connected to that site, are not incorporated into and are not a part of this prospectus.

INCORPORATION OF CERTAIN INFORMATION BY REFERENCE

The SEC allows us to "incorporate by reference" information from other documents that 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. Information in this prospectus supersedes information incorporated by reference that we filed with the SEC prior to the date of this prospectus, while information that we file later with the SEC will automatically update and supersede the information in this prospectus. We incorporate by reference into this prospectus and the registration statement of which this prospectus is a part the information or documents listed below that we have filed with the SEC:

- Our Annual Report on Form 10-K for the year ended December 31, 2021 filed with the SEC on March 31, 2022;
- Our Quarterly Reports on Form 10-Q for the quarter ended March 31, 2022, filed with the SEC on May 12, 2022, for the quarter ended June 30, 2022, filed with the SEC on August 11, 2022 and for the quarter ended September 30, 2022, filed with the SEC on November 14, 2022;
- Our Definitive Proxy Statements on Schedule 14A, filed on May 2, 2022 and July 29, 2022;
- Our Current Reports on Form 8-K filed with the SEC on January 18, 2022, January 27, 2022, February 8, 2022, May 5, 2022, May12, 2022, May 17, 2022, June 17, 2002, June 27, 2022, July 6, 2022, August 2, 2022, August 9, 2022, September 8, 2022, September 16, 2022, September 20, 2022, October 27, 2022, December 8, 2022 and December 16, 2022 (in each case other than any portions thereof deemed furnished and not filed); and
- The Form 8-A filed with the SEC on November 28, 2017 by our predecessor corporation, Leisure Acquisition Corp. ("LACQ"), included a description of common stock that has been updated with the filing of our Third Amended and Restated Certificate of Incorporation as Exhibit 3.1 to our Current Report on Form 8-K filed with the SEC on July 7, 2021.
- The financial statements included in our Registration Statement on Form S-1 initially filed with the SEC on October 28, 2022 (333-268038), as amended, and included in the related prospectus filed with the SEC on December 9, 2022.

We also incorporate by reference any future filings (other than any filings or portions of such reports that are not deemed "filed" under the Exchange Act in accordance with the Exchange Act and applicable SEC rules, including current reports furnished under Item 2.02 or Item 7.01 of Form 8-K and exhibits furnished on such form that are related to such items unless such Form 8-K expressly provides to the contrary) made with the SEC pursuant to Sections 13(a), 13(c), 14 or 15(d) of the Exchange Act, including those made after the date of the initial filing of the registration statement of which this prospectus is a part and prior to the effectiveness of the registration statement, until we file a post-effective amendment that indicates the termination of the offering of the securities made by this prospectus and will become a part of this prospectus from the date that such documents are filed with the SEC. Information in such future filings updates and supplements the information provided in this prospectus. Any statements in any such future filings will automatically be deemed to modify and supersede any information in any document we previously filed with the SEC that is incorporated or deemed to be incorporated herein by reference to the extent that statements in the later filed document modify or replace such earlier statements.

We will furnish without charge to you, upon written or oral request, a copy of any or all of the documents incorporated by reference, including exhibits to these documents by writing or telephoning us at the following address or phone number below. You may also access this information on our website at www.ensysce.com by viewing the "SEC Filings" subsection of the "Investors" menu. No additional information is deemed to be part of or incorporated by reference into this prospectus.

Ensysce Biosciences, Inc.
7946 Ivanhoe Avenue, Suite 201
La Jolla, California 92037
(858) 263-4196

CAUTIONARY NOTE REGARDING FORWARD-LOOKING STATEMENTS

This prospectus, any prospectus supplement, and the documents incorporated by reference into this prospectus contain certain "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 with respect to our business, financial condition, liquidity, and results of operations. These forward-looking statements are not historical facts but rather are plans and predictions based on current expectations, estimates, and projections about our industry, our beliefs, and assumptions. We use words such as "may," "will," "could," "should," "anticipate," "expect," "intend," "project," "plan," "believe," "seek," "estimate," "assume," and variations of these words and similar expressions to identify forward-looking statements. Statements in this prospectus and the other documents incorporated by reference that are not historical facts are hereby identified as "forward-looking statements" for the purpose of the safe harbor provided by Section 21E of the Exchange Act and Section 27A of the Securities Act. These statements are not guarantees of future performance and are subject to certain risks, uncertainties, and other factors, some of which are beyond our control, are difficult to predict and could cause actual results to differ materially from those expressed or forecasted in the forward-looking statements. These risks and uncertainties include those described in the section above entitled "Risk Factors," in our Annual Report on Form 10-K for the fiscal year ended December 31, 2021, our subsequent Quarterly Report on Form 10-Q for the quarterly period ended September 30, 2022 and the risks detailed from time to time on our future reports filed with the SEC.

You should read this prospectus and the documents incorporated by reference completely and with the understanding that our actual future results may be materially different from what we currently expect. Our business and operations are and will be subject to a variety of risks, uncertainties and other factors. Consequently, actual results and experience may materially differ from those contained in any forward-looking statements. Such risks, uncertainties and other factors that could cause actual results and experience to differ from those projected include, but are not limited to, the risk factors discussed under the heading "Risk Factors" contained in this prospectus, any applicable prospectus supplement and any related free writing prospectus, and under similar headings in the other documents that are incorporated by reference into this prospectus.

You should assume that the information appearing in this prospectus, any accompanying prospectus supplement or related free writing prospectus and any document incorporated herein by reference is accurate as of its date only. Because the risk factors referred to above could cause actual results or outcomes to differ materially from those expressed in any forward-looking statements made by us or on our behalf, you should not place undue reliance on any forward-looking statements. Further, any forward-looking statement speaks only as of the date on which it is made. New factors emerge from time to time, and it is not possible for us to predict which factors will arise. In addition, we cannot assess the impact of each factor on our business or the extent to which any factor, or combination of factors, may cause actual results to differ materially from those contained in any forward-looking statements. Unless legally required, we do not undertake any obligation to release publicly any revisions to such forward-looking statements to reflect events or circumstances after the date of this prospectus or to reflect the occurrence of unanticipated events.

ABOUT ENSYSCE

Overview

We are a clinical stage pharmaceutical company seeking to develop innovative solutions for severe pain relief while reducing the fear of and the potential for opioid misuse, abuse, and overdose. Prescription opioid abuse presents major burdens to society, resulting in significant costs, illnesses and deaths, many of which we believe could be prevented through the use of our proprietary technologies. We believe the intertwined issues of (1) the widespread abuse of prescription opioids and (2) the resultant reluctance of many prescribers to write prescriptions for opioid analgesics have resulted in the persistent under-treatment of patients with moderate-to-severe pain. Our platforms utilize a novel molecular delivery technology designed to deter prescription opioid abuse at the molecular level. We own numerous patents and applications in the United States and significant commercial markets, such as Europe, China and Japan, relating to our product candidates currently in development, as well as other product candidates that may be developed in the future.

Our current development pipeline includes two new drug platforms: (1) an abuse-resistant opioid prodrug technology – theTrypsin Activated Abuse Protection, or the TAAP platform; and (2) an over-dose protection opioid prodrug technology – the Multi-Pill Abuse Resistant, or the MPAR™ platform. The TAAP platform is designed to seek to improve the care of patients with chronic pain while reducing the human and economic costs associated with prescription opioid drug abuse. The MPAR™ platform when combined with our TAAP prodrugs is designed not only to seek to prevent abuse of prescription drugs but also to reduce overdose occurrences. Each prodrug is intended to be able to be combined with our MPAR™ technology for overdose protection.

While our principal focus and lead product candidates are geared towards combating abuse and overdose of opioid drugs, we have, over the years of research and development, discovered and recognized qualities and unique features of certain product candidates that may be useful in addressing other treatments. For example, we discovered the ability of nafamostat di-mesylate (“nafamostat”) to inhibit the action of enzymes associated with the COVID-19 infection, and have done preliminary work on the development of an oral and inhalation drug product of nafamostat, for use against coronaviral infections and other pulmonary diseases such as cystic fibrosis.

Corporate Information

We were originally incorporated in the State of Delaware in April 2003 as PharmacoFore, Inc. and, in January 2012, we changed our name from PharmacoFore, Inc. to Signature Therapeutics Inc. (“Signature”). On December 28, 2015, Signature, Signature Acquisition Corp., a wholly-owned subsidiary of Signature (“SAQ”), and Ensysce Biosciences, Inc. (“EB”) entered into an Agreement and Plan of Merger (“EB-ST Agreement”). Pursuant to the EB-ST Agreement, SAQ merged with and into EB with EB surviving the merger as a wholly-owned subsidiary of Signature. As part of the transaction, Signature changed its name to “Ensysce Biosciences, Inc.” (“Former Ensysce”) and changed EB’s name to EBI Operating Inc. On January 31, 2021, LACQ, Former Ensysce, and Merger Sub entered into the Merger Agreement. On June 30, 2021, pursuant to the Merger Agreement, Merger Sub merged with and into Former Ensysce, with Former Ensysce surviving the transaction as a wholly-owned subsidiary of LACQ. As part of the transaction, LACQ changed its name to “Ensysce Biosciences, Inc.” and Former Ensysce changed its name to EBI OpCo, Inc. (the “Merger”).

The mailing address of our principal executive office is 7946 Ivanhoe Avenue, Suite 201, La Jolla, California 92037. Our corporate telephone number is (858) 263-4196. Our website address is www.ensysce.com. Information contained on our website, or connected thereto, does not constitute part of, and is not incorporated by reference into, this prospectus.

RISK FACTORS

Investment in any securities offered pursuant to this prospectus and the applicable prospectus supplement involves risks. You should carefully consider the risk factors included in our most recent Annual Report on Form 10-K, our most recent Quarterly Report on Form 10-Q and any subsequent Annual Reports on Form 10-K, Quarterly Reports on Form 10-Q or Current Reports on Form 8-K we file after the date of this prospectus, and all other information contained or incorporated by reference into this prospectus, as updated by our subsequent filings under the Exchange Act, and the risk factors and other information contained in the applicable prospectus supplement and any applicable free writing prospectus before acquiring any of such securities. The occurrence of any of these risks might cause you to lose all or part of your investment in the offered securities.

USE OF PROCEEDS

Except as set forth in any accompanying prospectus supplement, we intend to use the net proceeds from the sale of any securities offered under this prospectus for general corporate purposes unless the applicable prospectus supplement provides otherwise. General corporate purposes may include, and are not limited to, research and development costs, manufacturing costs, the acquisition or licensing of other businesses, products or product candidates, working capital and capital expenditures.

We may temporarily invest the net proceeds in a variety of capital preservation instruments, including investment grade instruments, certificates of deposit or direct or guaranteed obligations of the U.S. government, or may hold such proceeds as cash, until they are used for their stated purpose. We have not determined the amount of net proceeds to be used specifically for such purposes. As a result, management will retain broad discretion over the allocation of net proceeds.

DESCRIPTION OF CAPITAL STOCK

The following description of our capital stock is not complete and may not contain all the information you should consider before investing in our capital stock. This description is summarized from, and qualified in its entirety by reference to, our certificate of incorporation, which has been publicly filed with the SEC. See “Where You Can Find More Information.” For a complete description, you should refer to our third amended and restated certificate of incorporation and amended and restated bylaws, copies of which are incorporated by reference as exhibits to the registration statement of which this prospectus is a part.

Authorized and Outstanding Capital Stock

Our authorized capital stock consists of 250,000,000 shares of common stock, $0.0001 par value per share, and 1,500,000 shares of preferred stock, $0.0001 par value per share. As of December 30, 2022, there were 6,414,074 shares of common stock and no shares of preferred stock outstanding and no shares of common stock held in treasury. The following description of our capital stock does not purport to be complete and should be reviewed in conjunction with our certificate of incorporation and our bylaws. See “Where You Can Find More Information.”

Common Stock

All outstanding shares of our common stock are fully paid and nonassessable. Common stockholders of record are entitled to one vote for each share held on all

matters to be voted on by stockholders. Unless specified in our third amended and restated certificate of incorporation or bylaws, or as required by applicable provisions of the Delaware General Corporation Law (the "DGCL") or applicable stock exchange rules, the affirmative vote of a majority of our shares of common stock that are voted is required to approve any such matter voted on by our stockholders. Our board of directors (the "Board") is divided into three classes, each of which will generally serve for a term of three years with only one class of directors being elected in each year. There is no cumulative voting with respect to the election of directors or any other matter, with the result that the holders of more than 50% of the shares voted for the election of directors can elect all the directors. Our stockholders are entitled to receive ratable dividends when, as and if declared by the Board out of funds legally available therefor.

In the event of a liquidation, dissolution or winding up, our stockholders are entitled to share ratably in all assets remaining available for distribution to them after payment of liabilities and after provision is made for each class of stock, if any, having preference over the common stock. Our stockholders have no preemptive or other subscription rights. There are no sinking fund provisions applicable to the common stock.

Preferred Stock

Our board of directors is authorized to issue from time to time, in one or more designated series, any or all of our authorized but unissued shares of preferred stock with dividend, redemption, conversion, exchange, voting and other provisions as may be provided in that particular series. The issuance need not be approved by our common stockholders.

Certain Anti-Takeover Provisions of our Third Amended and Restated Certificate of Incorporation and our Bylaws

The third amended and restated certificate of incorporation and our bylaws contain provisions that may delay, defer or discourage another party from acquiring control of us. These provisions, which are summarized below, discourage coercive takeover practices or inadequate takeover bids. These provisions are also designed to encourage persons seeking to acquire control of us to first negotiate with our Board, which may result in an improvement of the terms of any such acquisition in favor of our stockholders. However, they also give the Board the power to discourage acquisitions that some stockholders may favor.

Classified Board

Our third amended and restated certificate of incorporation provides that our Board is classified into three classes of directors. As a result, in most circumstances, a person can gain control of our Board only by successfully engaging in a proxy contest at two or more annual meetings.

Authorized but Unissued Shares

Our authorized but unissued shares of common and preferred stock are available for future issuances without stockholder approval and could be utilized for a variety of corporate purposes, including future offerings to raise additional capital, acquisitions, and employee benefit plans. However, the listing requirements of the Nasdaq, which apply if and so long as our common stock remains listed on the Nasdaq, require stockholder approval of certain issuances equal to or exceeding 20% of the then outstanding voting power or then outstanding number of shares of common stock. Additional shares that may be used in the future may be issued for a variety of corporate purposes, including future public offerings, to raise additional capital, or to facilitate acquisitions. The existence of authorized but unissued and unreserved common stock and preferred stock could render it more difficult or discourage an attempt to obtain control of us by means of a proxy contest, tender offer, merger or otherwise.

Special Meetings of Stockholders

Our bylaws provide that special meetings of our stockholders may be called only by a majority vote of our Board.

Advance Notice Requirements for Stockholder Proposals and Director Nominations

Our bylaws provide that stockholders seeking to bring business before our annual meeting of stockholders, or to nominate candidates for election as directors at our annual meeting of stockholders, must provide timely notice of their intent in writing. To be timely, a stockholder's notice will need to be received by the company secretary at our principal executive offices not later than the close of business on the 90^{th} day nor earlier than the close of business on the 120^{th} day prior to the anniversary date of the immediately preceding annual meeting of stockholders. Pursuant to Rule 14a-8 of the Exchange Act, proposals seeking inclusion in our annual proxy statement must comply with the notice periods contained therein. Our bylaws also specify certain requirements as to the form and content of a stockholders meeting. These provisions may preclude our stockholders from bringing matters before our annual meeting of stockholders or from making nominations for directors at our annual meeting of stockholders.

Amendment of Charter or Bylaws

The third amended and restated certificate of incorporation provides that certain provisions of the third amended and restated certificate of incorporation, notwithstanding that a lesser percentage may be permitted from time to time by applicable law, and our bylaws may only be amended or repealed by, in addition to any vote required by the third amended and restated certificate of incorporation or by applicable law, the vote of the holders of sixty-five percent of the voting power of all of the then-outstanding shares entitled to vote generally in the election of directors, voting together as a single class.

Exclusive Forum

Under the our charter, unless we consent in writing to the selection of an alternative forum, subject to certain limitations, the sole and exclusive forum will be the Court of Chancery of the State of Delaware (or, if such court does not have jurisdiction, the Superior Court of the State of Delaware, or, if the Superior Court of the State of Delaware also does not have jurisdiction, the United States District Court for the District of Delaware) for:

- any derivative action or proceeding brought on our behalf;
- any action asserting a claim of breach of a fiduciary duty owed by any of our directors, officers or other employees to us or our stockholders;
- any action asserting a claim against us arising pursuant to any provision of the DGCL, our charter or our bylaws (as either may be amended, restated, modified, supplemented or waived from time to time);

- any action to interpret, apply, enforce or determine the validity of our charter or our bylaws; and
- any action asserting a claim against us governed by the internal affairs doctrine.

For the avoidance of doubt, the foregoing provisions of our charter will not apply to any action or proceeding asserting a claim under the Securities Act or the Exchange Act. These provisions of our charter could limit the ability of our stockholders to obtain a favorable judicial forum for certain disputes with us or with our current or

former directors, officers or other employees, which may discourage such lawsuits against us and our current or former directors, officers and employees. Alternatively, if a court were to find these provisions of our charter inapplicable to, or unenforceable in respect of, one or more of the types of actions or proceedings listed above, we may incur additional costs associated with resolving such matters in other jurisdictions, which could adversely affect our business, financial condition and results of operations.

Delaware Anti-Takeover Statute

We are subject to the provisions of Section 203 of the Delaware General Corporation Law (sometimes referred to as Section 203) regulating corporate takeovers. In general, Section 203 prohibits a publicly-held Delaware corporation from engaging, under specified circumstances, in a business combination with an interested stockholder for a period of three years following the date the person became an interested stockholder unless:

- prior to the date of the transaction, the board of directors of the corporation approved either the business combination or the transaction which resulted in the stockholder becoming an interested stockholder;
- upon consummation of the transaction that resulted in the stockholder becoming an interested stockholder, the stockholder owned at least 85% of the voting stock of the corporation outstanding at the time the transaction commenced, excluding for purposes of determining the number of shares of voting stock outstanding (but not the outstanding voting stock owned by the stockholder)(1) shares owned by persons who are directors and also officers and (2) shares owned by employee stock plans in which employee participants do not have the right to determine confidentially whether shares held subject to the plan will be tendered in a tender or exchange offer; or
- on or subsequent to the date of the transaction, the business combination is approved by the board of directors and authorized at an annual or special meeting of stockholders, and not by written consent, by the affirmative vote of at least 66-2/3% of the outstanding voting stock that is not owned by the interested stockholder.

Generally, a business combination includes a merger, asset or stock sale, or other transaction resulting in a financial benefit to the interested stockholder. An interested stockholder is a person who, together with affiliates and associates, owns or, within three years prior to the determination of interested stockholder status, did own 15% or more of a corporation's outstanding voting securities. We expect the existence of this provision to have an anti-takeover effect with respect to transactions our board of directors do not approve in advance. We also anticipate that Section 203 may also discourage attempts that might result in a premium over the market price for the shares of our common stock held by stockholders.

The provisions of Delaware law, our certificate of incorporation and our bylaws could have the effect of discouraging others from attempting hostile takeovers and, as a consequence, they may also inhibit temporary fluctuations in the market price of our common stock that often result from actual or rumored hostile takeover attempts. These provisions may also have the effect of preventing changes in our management. It is possible that these provisions could make it more difficult to accomplish transactions that stockholders may otherwise deem to be in their best interests.

Warrants

On September 24, 2021, we entered into a securities purchase agreement, whereby we issued to the other parties thereto warrants to purchase 54,174 shares of the common stock in the aggregate (the "2021 Investor Warrants"). The 2021 Investor Warrants had an exercise price of $152.60, a 30% premium to the conversion price, and are exercisable for five years following issuance. As a result of our entering into a securities purchase agreement in 2022 with the same parties that were signatory to the securities purchase agreement in 2021, the exercise price of the 2021 Prior Warrants was reduced to $15.60.

On June 30, 2022, we entered into a securities purchase agreement, whereby we issued to the other parties signatory thereto warrants (the "2022 Investor Warrants") to purchase 466,788 shares of the common stock in the aggregate. The 2022 Investor Warrants have been reset to an exercise price of $2.006, and are exercisable for five years following issuance. Our obligations under the 2021 Investor Warrants and 2022 Investor Warrants are secured by all of our and our subsidiaries' assets and are guaranteed jointly and severally by our subsidiaries.

On December 9, 2022, in connection with the sale of shares of our common stock pursuant to a registration statement filed with the SEC, we issued warrants to purchase 6,600,000 shares of our common stock at an exercise price of $1.40 per share of common stock. These warrants are not traded on any market.

Over time, we have issued, to a number of third parties, warrants that may be exercised for common stock. Some of these warrants are traded on the OTC Pink Open Market under the symbol "*ENSCW*".

Convertible Promissory Notes

2021 Secured Convertible Promissory Notes

On September 24, 2021, we entered into a securities purchase agreement (the "2021 Securities Purchase Agreement") whereby we issued to the other parties signatory thereto secured convertible promissory notes in the aggregate principal amount of $15.9 million for an aggregate purchase price of $15 million (the "2021 Notes"). Our obligations under the 2021 Securities Purchase Agreement are secured by all of our and our subsidiaries' assets and are guaranteed jointly and severally by our subsidiaries.

We have registered with the SEC the resale of the shares of common stock issuable upon conversion of the 2021 Notes, as well as the shares of common stock issuable upon the exercise of the 2021 Investor Warrants. The 2021 Notes were repaid in full in October 2022.

2022 Secured Convertible Promissory Notes

On June 30, 2022, we entered into a securities purchase agreement (the "2022 Securities Purchase Agreement") whereby we issued to the other parties signatory thereto secured convertible promissory notes in the aggregate principal amount of $8.48 million for an aggregate purchase price of $8.0 million (the "2022 Notes") in two closings under the 2022 Securities Purchase Agreement, the first closing occurring on July 1, 2022 and the second occurring on August 8, 2022. Our obligations under the 2022 Securities Purchase Agreement are secured by all of our and our subsidiaries' assets and are guaranteed jointly and severally by our subsidiaries.

The 2022 Notes, subject to an original issue discount of six percent (6%), have a term of eighteen months and accrue interest at the rate of 6.0% per annum. The 2022 Notes are convertible into the common stock, at a per share conversion price equal to $10.90, a 10% premium to the average price of the common stock for the three trading days prior to the first closing under the 2022 Securities Purchase Agreement. The conversion price is subject to customary anti-dilution adjustments upon (among other triggering events) the occurrence of a change of control transaction and certain dilutive transactions, including subsequent equity issuances, share dividends and splits occurring following the issuance of the promissory note.

Under the 2022 Notes, commencing on September 29, 2022 and continuing monthly on the first day of each month beginning November 1, 2022, we are obligated to redeem one fifteenth (1/15th) of the original principal amount of the applicable 2022 Notes, plus accrued but unpaid interest, liquidated damages and any other amounts then owing to the holder of such 2022 Note. Under the 2022 Notes issued on August 8, 2022, commencing on November 1, 2022 and continuing monthly on the first day of each month beginning December 1, 2022, we are obligated to redeem one fifteenth (1/15th) of the original principal amount under the applicable 2022 Note, plus accrued but unpaid interest, liquidated damages and any other amounts then owing to the holder of such 2022 Note.

We may elect to pay all or part of the redemption amount in cash with a premium of eight percent or in conversion shares of common stock based on a conversion price equal to the lesser of (i) the conversion price and (ii) 92% of the average of the three lowest VWAPs (as defined in the 2022 Securities Purchase Agreement) during the ten (10) consecutive trading days ending on the trading day that is immediately prior to the applicable redemption date, but in no event may we pay the redemption amount in conversion shares of common stock unless the conversion price is at least equal to $2.006 and certain equity conditions are satisfied. We may incur additional dilution from repayment of the 2022 Notes in common stock or re-setting the conversion price of the 2022 Notes if we issue equity at a price below the conversion price of the 2022 Notes. Such issuance occurred in December 2022, re-setting the conversion price of the 2022 Notes to $2.006.

We are obligated to pay additional cash as true-up payments in the event that we pay interest or redemption amounts in shares of common stock that are valued below $2.006. The true-up payments compensate for the difference between the value of a share and $2.006, multiplied by the number of shares paid. The holders of the 2022 Notes may, each month while the 2022 Notes are outstanding, accelerate redemption amounts, resulting in an aggregate of up to four redemption amounts per month. Each accelerated redemption amount, like the monthly redemption amount, is one fifteenth ($1/15^{th}$) of the original principal amount. We are required to pay accelerated redemption amounts in additional shares. Therefore, acceleration of redemption amounts accelerates the conversion of the 2022 Notes into shares of common stock. If those conversion shares are valued below $2.006, then we will be required to pay additional cash as true-up payments at a time when we may not have the cash to satisfy any deficiency.

We have registered with the SEC the resale of the shares of common stock issuable upon conversion of the 2022 Notes as well as the shares of common stock issuable upon the exercise of the 2022 Investor Warrants. The 2022 Notes contain certain covenants, and events of default and triggering events, respectively, which would require repayment of the obligations outstanding pursuant to such instruments. Our obligations under the 2022 Notes are secured by all of our and our subsidiaries' assets and are guaranteed jointly and severally by our subsidiaries.

Options

As of December 31, 2022, we had 328,248 shares of common stock issuable upon the exercise of outstanding options, having a weighted average exercise price of $56.80 per share.

Transfer Agent and Registrar

The transfer agent and registrar for our common stock is Continental Stock Transfer & Trust Company. Its telephone number is (212) 509-4000.

DESCRIPTION OF DEBT SECURITIES

The following description, together with the additional information we include in any applicable prospectus supplement or free writing prospectus, summarizes certain general terms and provisions of the debt securities that we may offer under this prospectus. When we offer to sell a particular series of debt securities, we will describe the specific terms of the series in a supplement to this prospectus. We will also indicate in the supplement to what extent the general terms and provisions described in this prospectus apply to a particular series of debt securities.

We may issue debt securities either separately, or together with, or upon the conversion or exercise of or in exchange for, other securities described in this prospectus. Debt securities may be our senior, senior subordinated or subordinated obligations and, unless otherwise specified in a supplement to this prospectus, the debt securities will be our direct, unsecured obligations and may be issued in one or more series.

The debt securities will be issued under an indenture between us and a third party to be identified therein as trustee. We have summarized select portions of the indenture below. The summary is not complete. The form of the indenture has been filed as an exhibit to the registration statement and you should read the indenture for provisions that may be important to you. In the summary below, we have included references to the section numbers of the indenture so that you can easily locate these provisions. Capitalized terms used in the summary and not defined herein have the meanings specified in the indenture.

We may offer under this prospectus up to an aggregate principal amount of $75,000,000 in debt securities, or if debt securities are issued at a discount, or in a foreign currency, foreign currency units or composite currency, the principal amount as may be sold for an aggregate initial public offering price of up to $75,000,000. Unless otherwise specified in the applicable prospectus supplement, the debt securities will represent direct, unsecured obligations of the Company and will rank equally with all our other unsecured indebtedness.

General

The terms of each series of debt securities will be established by or pursuant to a resolution of our board of directors and set forth or determined in the manner provided in a resolution of our board of directors, in an officer's certificate or by a supplemental indenture. (Section 2.2) We can issue an unlimited amount of debt securities under the indenture that may be issued in one or more series. Unless otherwise set forth in a resolution of our board of directors, a supplemental indenture or an officer's certificate detailing the adopt of a series of debt securities, all securities in a series shall be identical. Debt securities may differ between series with respect to any term, provided, that all series of debt securities shall be equally and ratably entitled to the benefits of the indenture. (Section 2.1)

The following statements relating to the debt securities and the indenture are summaries, qualified in their entirety by reference to the detailed provisions of the indenture and the final form indenture as may be filed with a future prospectus supplement.

The prospectus supplement will set forth, to the extent required, the following terms of the debt securities in respect of which the prospectus supplement is delivered:

- the title of the series;
- the aggregate principal amount;
- the issue price or prices, expressed as a percentage of the aggregate principal amount of the debt securities;
- any limit on the aggregate principal amount;
- the date or dates on which principal is payable;
- the interest rate or rates (which may be fixed or variable) or, if applicable, the method used to determine such rate or rates;

- the date or dates from which interest, if any, will be payable and any regular record date for the interest payable;
- the place or places where principal and, if applicable, premium and interest, is payable;
- the terms and conditions upon which we may, or the holders may require us to, redeem or repurchase the debt securities;
- the obligation, if any, of the Company to redeem or repurchase the debt securities of a series pursuant to any sinking fund or analogous provision or at the option of a holder of the debt securities, and the period or periods within which, the price or prices at which and the terms and conditions upon which debt securities of a series shall be redeemed or purchased, in whole or in part, pursuant to such obligation;
- the denominations in which such debt securities may be issuable, if other than denominations of $1,000 or any integral multiple of that number;
- whether the debt securities are to be issuable in the form of certificated securities (as described below) or global securities (as described below);
- the portion of principal amount that will be payable upon declaration of acceleration of the maturity date if other than the principal amount of the debt securities;
- the currency of denomination;
- the designation of the currency, currencies or currency units in which payment of principal and, if applicable, premium and interest, will be made;
- if payments of principal and, if applicable, premium or interest, on the debt securities are to be made in one or more currencies or currency units other than the currency of denomination, the manner in which the exchange rate with respect to such payments will be determined;
- if amounts of principal and, if applicable, premium and interest may be determined by reference to an index based on a currency or currencies or by reference to a commodity, commodity index, stock exchange index or financial index, then the manner in which such amounts will be determined;
- the provisions, if any, relating to any collateral provided for such debt securities;
- any addition to or change in the covenants and/or the acceleration provisions described in this prospectus or in the indenture;
- any events of default, if not otherwise described below under “Defaults and Notice”;
- the terms and conditions, if any, for conversion into or exchange for shares of our common stock or preferred stock;
- any depositaries, interest rate calculation agents, exchange rate calculation agents or other agents;
- the terms and conditions, if any, upon which the debt securities shall be subordinated in right of payment to other indebtedness of the Company; and
- if the debt securities of a series, in whole or any specified part, shall be defeasible. (Section 2.2)

We may issue debt securities that provide for an amount less than their stated principal amount to be due and payable upon declaration of acceleration of their maturity pursuant to the terms of the indenture. We will provide you with information on the federal income tax considerations and other special considerations applicable to any of these debt securities in the applicable prospectus supplement.

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

Exchange and/or Conversion Rights

We may issue debt securities which can be exchanged for or converted into shares of our common stock or preferred stock. If we do, we will describe the terms of exchange or conversion in the prospectus supplement relating to these debt securities. (Section 2.2)

Transfer and Exchange

Each debt security will be represented by either one or more global securities registered in the name of The Depository Trust Company, or the Depositary, or a nominee of the Depositary (we will refer to any debt security represented by a global debt security as a book-entry debt security), or a certificate issued in definitive registered form (we will refer to any debt security represented by a certificated security as a certificated debt security) as set forth in the applicable prospectus supplement. Except as set forth under the heading “Global Debt Securities and Book-Entry System” below, book-entry debt securities will not be issuable in certificated form.

Certificated Debt Securities

You may transfer or exchange certificated debt securities in accordance with the terms of the indenture. (Section 2.4) You will not be charged a service charge for any transfer or exchange of certificated debt securities but may be required to pay an amount sufficient to cover any tax or other governmental charge payable in connection with such transfer or exchange. (Section 2.7)

You may effect the transfer of certificated debt securities and the right to receive the principal of, premium and interest on certificated debt securities only by surrendering the certificate representing those certificated debt securities and either reissuance by us or the trustee of the certificate to the new holder or the issuance by us or the trustee of a new certificate to the new holder. (Section 2.7)

Global Securities

Each global debt security representing book-entry debt securities will be deposited with, or on behalf of, the Depositary, and registered in the name of the Depositary or a nominee of the Depositary. Please see “Global Securities.”

No Protection in the Event of a Change of Control

Unless we state otherwise in the applicable prospectus supplement, the debt securities will not contain any provisions which may afford holders of the debt securities protection in the event we have a change in control or in the event of a highly leveraged transaction (whether such transaction results in a change in control) which could

adversely affect holders of debt securities.

Covenants

Unless otherwise indicated in this prospectus or the applicable prospectus supplement, our debt securities may not have the benefit of any covenant that limits or restricts our business or operations, the pledging of our assets or the incurrence by us of indebtedness. We will describe in the applicable prospectus supplement any material covenants in respect of a series of debt securities. (Article 4)

Consolidation, Merger and Sale of Assets

We may not consolidate with or merge with or into, or sell, assign, convey, transfer, lease or otherwise dispose of all or substantially all our properties and assets to any person, or a successor person, unless:

- the indenture shall remain in full force and effect and either we are the surviving corporation or the successor person (if other than us) is a corporation organized and validly existing under the laws of any U.S. domestic jurisdiction or a corporation or comparable legal entity organized under the laws of a foreign jurisdiction and expressly assumes by a supplemental indenture executed and delivered to the trustee, all of our obligations on the debt securities and under the indenture; and
- immediately after giving effect to the transaction, no Default or Event of Default, shall have occurred and be continuing. (Section 5.1)

Defaults and Notice

Unless otherwise specified in the resolution of our board of directors, supplemental indenture or officer's certificate establishing a series of debt securities, "Event of Default" means with respect to any series of debt securities, any of the following:

- failure to pay the principal of, or premium, if any, on any debt security when the same becomes due and payable at Maturity, upon acceleration, redemption or otherwise;
- failure to make a payment of any interest on any debt security of such series when due and payable, and the default continues for a period of 30 days;
- failure to perform or observe any other covenants or agreements in the indenture with respect to the debt securities of the series or in the Indenture for 60 days after written notice from the trustee or the holders of not less than 25% of the aggregate principal amount of the debt securities of the series then outstanding, with such notice specifying the default, demanding that it be remedied and stating that the notice is a "Notice of Default";
- certain events relating to our bankruptcy, insolvency or reorganization or the bankruptcy, insolvency or reorganization of a Significant Subsidiary;
- certain cross defaults, if and as applicable; and
- any other Event of Default specified in the resolution of our board of directors, supplemental indenture or officer's certificate establishing such series of debt securities. (Section 6.1)

No Event of Default with respect to a particular series of debt securities necessarily constitutes an Event of Default with respect to any other series of debt securities. (Section 6.2) The occurrence of certain Events of Default or an acceleration under the indenture may constitute an event of default under certain indebtedness of ours or our subsidiary outstanding from time to time.

If an Event of Default with respect to debt securities of any series at the time outstanding (except as to certain events of bankruptcy, insolvency or reorganization) occurs and is continuing, then the trustee or the holders of not less than 25% in principal amount of the outstanding debt securities of that series may, by a notice in writing to us (and to the trustee if given by the holders), declare to be due and payable immediately the principal of, and accrued and unpaid interest, if any, on, all debt securities of that series. In the case of an Event of Default resulting from certain events of bankruptcy, insolvency or reorganization, the principal (or such specified amount) of and accrued and unpaid interest, if any, on all outstanding debt securities will become and be immediately due and payable without any declaration or other act on the part of the trustee or any holder of outstanding debt securities. At any time after a declaration of acceleration with respect to debt securities of any series has been made, but before a judgment or decree for payment of the money due has been obtained by the trustee, the holders of a majority in principal amount of the outstanding debt securities of that series may rescind and annul the acceleration if all Events of Default, other than the non-payment of accelerated principal and interest, if any, with respect to debt securities of that series, have been cured or waived as provided in the indenture and such rescission would not conflict with any judgment or decree. (Section 6.2) We refer you to the prospectus supplement relating to any series of debt securities that are discount securities for the particular provisions relating to acceleration of a portion of the principal amount of such discount securities upon the occurrence of an Event of Default.

The trustee is entitled to be indemnified by holders of debt securities before proceeding to exercise any trust or power under the indenture at the request of such holders. (Section 6.6) The holders of at least a majority in aggregate principal amount of the then outstanding debt securities of any series may direct the time, method and place of conducting any proceedings for any remedy available to the trustee for such series, or of exercising any trust or power conferred upon the trustee with respect to the debt securities of such series. (Section 6.5) However, the trustee may decline to follow any such direction that conflicts with law or the indenture, or that the trustee determines may be unduly prejudicial to the holders of the debt securities of such series not joining in such direction. (Section 6.5)

No holder of any debt security of any series will have any right to institute any proceeding or pursue any remedy, with respect to the indenture or a series of debt securities, unless:

- That holder has previously given to the trustee written notice of a continuing Event of Default with respect to debt securities of that series; and
- The holders of note less than 25% in principal amount of the outstanding debt securities of that series have made written request, and offered indemnity or security satisfactory to the trustee, to the trustee to institute the proceeding as trustee, and the trustee has failed to institute the proceeding within 60 days and has not received from the holder of not less than a majority in principal amount of the outstanding debt securities of that series a direction inconsistent with that request within such 60 day periods. (Section 6.6)

No holder of debt securities under the indenture may use the indenture to prejudice the rights of another holder or to obtain a preference or priority over another holder of debt securities. (Section 6.6)

Notwithstanding any other provision in the indenture, the holder of any debt security will have an absolute and unconditional right to receive payment of the principal of, premium and any interest on that debt security on or after the due dates expressed in that debt security and to institute suit for the enforcement of payment. (Section 6.7)

The indenture requires us, within 120 days after the end of our fiscal year, to furnish to the trustee a statement as to compliance with the indenture. (Section 4.4) If a Default or Event of Default occurs and is continuing with respect to the securities of any series and if it is known to a responsible officer of the trustee, the trustee shall mail to each holder of the securities of that series notice of a Default or Event of Default within 90 days after it occurs or, if later, after a responsible officer of the trustee has knowledge of such Default or Event of Default (except if such Default or Event of Default has been validly cured or waived before the trustee gives such notice). The indenture provides that the trustee may withhold notice to the holders of debt securities of any series of any Default or Event of Default (except in payment on any debt securities of that series) with respect to debt securities of that series if the trustee determines in good faith that withholding notice is in the interest of the holders of those debt securities. (Section 7.5)

Modification of the Indenture

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

- to comply with covenants in the indenture described above under the heading "Consolidation, Merger and Sale of Assets";
- to provide for uncertificated securities in addition to or in place of certificated securities;
- to provide for certificated debt securities in addition to uncertificated debt securities;
- to comply with requirements of the SEC in order to effect or maintain the qualification of the indenture under the Trust Indenture Act;
- to cure any ambiguity, defect or inconsistency or make any other change to the indenture or the debt securities that does not materially and adversely affect the rights of any holder of our debt securities under the indenture;

- to provide for the issuance of and establish the form and terms and conditions of debt securities of any series as permitted by the indenture; or
- to effect the appointment of a successor trustee with respect to the debt securities of any series and to add to or change any of the provisions of the indenture to provide for or facilitate administration by more than one trustee. (Section 8.1)

We may also modify or supplement the indenture with the written consent of the holders of at least a majority in principal amount of the outstanding debt securities of each series affected by the modifications or supplement. The holders of at least a majority in principal amount of the outstanding debt securities of each such series affected by the modifications or supplement may waive compliance by us in a particular instance with any provision of the indenture or the debt securities of such affected series of debt securities without notice to any holder of our debt securities. We may not make any modification or amendment without the consent of the holders of each affected debt security then outstanding if that amendment will:

- reduce the amount of debt securities whose holders must consent to an amendment, supplement or waiver;
- reduce the rate of or change the time for payment of interest (including default interest) on any debt security;
- reduce the principal of or premium on or change the fixed maturity of any debt security or reduce the amount of, or postpone the date fixed for, the payment of any sinking fund or analogous obligation with respect to any series of debt securities;
- make the principal of or premium or interest on any debt security payable in currency other than that stated in the debt security;
- change the amount or time of any payment required by any debt security, or reduce the premium payable upon any redemption of any debt securities, or change the time before which no such redemption may be made;
- waive a default in the payment of the principal of, or interest or premium, if any, on, any debt security (except a rescission of acceleration of the debt securities of any series by the holders of at least a majority in aggregate principal amount of the then outstanding debt securities of that series and a waiver of the payment default that resulted from such acceleration);
- waive a redemption payment with respect to any debt security, or change any of the provisions with respect to the redemption of any debt securities;
- reduce the principal amount of discount securities payable upon acceleration of maturity; or
- make any change to certain provisions of the indenture relating to the rights of holders to institute suit with respect to the indenture or the debt securities of a series and the modification or supplement of the indenture or the debt securities of any series requiring the consent of holders of our debt securities. (Section 8.2)

The holders of a majority in principal amount of the outstanding debt securities of any series may on behalf of the holders of all the debt securities of such series waive any past default under the indenture with respect to that series and its consequences, except a default in the payment of the principal of, premium or any interest on any debt security of that series (Section 6.4); provided, however, that the holders of a majority in principal amount of the outstanding debt securities of any series may rescind an acceleration and its consequences, including any related payment default that resulted from the acceleration. (Section 6.2)

Defeasance of Debt Securities and Certain Covenants in Certain Circumstances

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

This discharge may occur only if, among other things, we have delivered to the trustee an opinion of counsel stating that we have received from, or there has been published by, the United States Internal Revenue Service a ruling or, since the date of execution of the indenture, there has been a change in the applicable United States federal income tax law, in either case to the effect that, and based thereon such opinion shall confirm that, the holders of the debt securities of that series will not recognize income, gain or loss for United States federal income tax purposes as a result of the deposit, defeasance and discharge and will be subject to United States federal income tax on the same amounts and in the same manner and at the same times as would have been the case if the deposit, defeasance and discharge had not occurred. (Section 9.2)

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

- we may omit to comply with the covenant described under the heading "Consolidation, Merger and Sale of Assets" and certain other covenants set forth in the indenture, as well as any additional covenants which may be set forth in the applicable prospectus supplement; and
- any omission to comply with those covenants will not constitute a Default or an Event of Default with respect to the debt securities of that series ("covenant defeasance").

This is referred to as covenant defeasance. The conditions include:

- depositing with the trustee money and/or U.S. government obligations or, in the case of debt securities denominated in a single currency other than U.S. Dollars, government obligations of the government that issued or caused to be issued such currency, that, through the payment of interest and principal in accordance with their terms, will provide money in an amount sufficient in the opinion of a nationally recognized firm of independent public accountants or investment bank to pay and discharge each installment of principal of, premium and interest on and any mandatory sinking fund payments in respect of the debt securities of that series on the stated maturity of those payments in accordance with the terms of the indenture and those debt securities; and
- delivering to the trustee an opinion of counsel to the effect that the holders of the debt securities of that series will not recognize income, gain or loss for United States federal income tax purposes as a result of the deposit and related covenant defeasance and will be subject to United States federal income tax on the same amounts and in the same manner and at the same times as would have been the case if the deposit and related covenant defeasance had not occurred. (Section 9.3)

No Personal Liability of Directors, Officers, Employees or Shareholders

None of our past, present or future directors, officers, employees or shareholders, as such, will have any liability for any of our obligations under the debt securities or the indenture or for any claim based on, or in respect or by reason of, such obligations or their creation. By accepting a debt security, each holder waives and releases all such liability. This waiver and release is part of the consideration for the issue of the debt securities. However, this waiver and release may not be effective to waive liabilities under U.S. federal securities laws, and it is the view of the SEC that such a waiver is against public policy. (Section 10.9)

Governing Law

The indenture and the debt securities, including any claim or controversy arising out of or relating to the indenture or the securities, will be governed by the laws of the State of New York. (Section 10.8)

DESCRIPTION OF WARRANTS

We may issue warrants to purchase shares of our common stock, preferred stock and/or debt securities in one or more series together with other securities or separately, as described in each applicable prospectus supplement. Below is a description of certain general terms and provisions of the warrants that we may offer. Particular terms of the warrants will be described in the applicable warrant agreements and the applicable prospectus supplement for the warrants.

The applicable prospectus supplement will contain, where applicable, the following terms of and other information relating to the warrants:

- the number of shares of common stock or preferred stock purchasable upon the exercise of warrants to purchase such shares and the price at which such number of shares may be purchased upon such exercise;
- the designation, stated value and terms (including, without limitation, liquidation, dividend, conversion and voting rights) of the series of
- preferred stock purchasable upon exercise of warrants to purchase preferred stock;
- the principal amount of debt securities that may be purchased upon exercise of a debt warrant and the exercise price for the warrants,
- which may be payable in cash, securities or other property;
- the date, if any, on and after which the warrants and the related debt securities, preferred stock or common stock will be separately transferable;
- the terms of any rights to redeem or call the warrants;
- the date on which the right to exercise the warrants will commence and the date on which the right will expire;
- United States Federal income tax consequences applicable to the warrants; and
- any additional terms of the warrants, including terms, procedures, and limitations relating to the exchange, exercise and settlement of the warrants.

Holders of equity warrants will not be entitled:

- to vote, consent or receive dividends;
- receive notice as shareholders with respect to any meeting of shareholders for the election of our directors or any other matter; or
- exercise any rights as shareholders of Ensysce.

Each warrant will entitle its holder to purchase the principal amount of debt securities or the number of shares of preferred stock or common stock at the exercise price set forth in, or calculable as set forth in, the applicable prospectus supplement. Unless we otherwise specify in the applicable prospectus supplement, holders of the warrants may exercise the warrants at any time up to the specified time on the expiration date that we set forth in the applicable prospectus supplement. After the close of business on the expiration date, unexercised warrants will become void.

A holder of warrant certificates may exchange them for new warrant certificates of different denominations, present them for registration of transfer and exercise them at the corporate trust office of the warrant agent or any other office indicated in the applicable prospectus supplement. Until any warrants to purchase debt securities are exercised, the holder of the warrants will not have any rights of holders of the debt securities that can be purchased upon exercise, including any rights to receive payments of principal, premium or interest on the underlying debt securities or to enforce covenants in the applicable indenture. Until any warrants to purchase common stock or preferred stock are exercised, the holders of the warrants will not have any rights of holders of the underlying common stock or preferred stock, including any rights to receive dividends or payments upon any liquidation, dissolution or winding up on the common stock or preferred stock, if any.

Prospective purchasers of warrants should be aware that special United States federal income tax, accounting and other considerations may be applicable to instruments such as warrants. The applicable prospectus supplement will describe such considerations, to the extent they are material, as they apply generally to purchasers of such warrants.

DESCRIPTION OF UNITS

We may issue units consisting of any combination of the other types of securities offered under this prospectus in one or more series. We may evidence each series of units by unit certificates that we will issue under a separate agreement. We may enter into unit agreements with a unit agent. Each unit agent will be a bank or trust company that we select. We will indicate the name and address of the unit agent in the applicable prospectus supplement relating to a particular series of units.

The following description, together with the additional information included in any applicable prospectus supplement, summarizes the general features of the units that we may offer under this prospectus. You should read any prospectus supplement and any free writing prospectus that we may authorize to be provided to you related to the series of units being offered, as well as the complete unit agreements that contain the terms of the units. Specific unit agreements will contain additional important terms and provisions and we will file as an exhibit to the registration statement of which this prospectus is a part or will incorporate by reference from another report that we file with the SEC, the form of each unit agreement relating to units offered under this prospectus.

If we offer any units, certain terms of that series of units will be described in the applicable prospectus supplement, including, without limitation, the following, as applicable:

- the title of the series of units;
- identification and description of the separate constituent securities comprising the units;
- the price or prices at which the units will be issued;
- the date, if any, on and after which the constituent securities comprising the units will be separately transferable;
- a discussion of certain United States federal income tax considerations applicable to the unites; and
- any other terms of the units and of the securities comprising the units.

The provisions described in this section, as well as those described under “Description of Capital Stock,” “Description of Debt Securities” and “Description of Warrants” will apply to the securities included in each unit, to the extent relevant and as may be updated in any prospectus supplements.

DESCRIPTION OF OUR SUBSCRIPTION RIGHTS

We may issue subscription rights to purchase our common stock, preferred stock or debt securities. These subscription rights may be offered independently or together with any other security offered hereby and may or may not be transferable by the stockholder receiving the subscription rights in such offering. In connection with any offering of subscription rights, we may enter into a standby arrangement with one or more underwriters or other purchasers pursuant to which the underwriters or other purchasers may be required to purchase any securities remaining unsubscribed for after such offering.

The prospectus supplement relating to any subscription rights we offer, if any, will, to the extent applicable, include specific terms relating to the offering, including some or all of the following:

- the price, if any, for the subscription rights;
- the exercise price payable for our common stock, preferred stock or debt securities upon the exercise of the subscription rights;
- the number of subscription rights to be issued to each stockholder;
- the number and terms of our common stock, preferred stock or debt securities which may be purchased per each subscription right;
- the extent to which the subscription rights are transferable;
- any other terms of the subscription rights, including the terms, procedures and limitations relating to the exchange and exercise of the subscription rights;
- the date on which the right to exercise the subscription rights shall commence, and the date on which the subscription rights shall expire;
- the extent to which the subscription rights may include an over-subscription privilege with respect to unsubscribed securities or an over-allotment privilege to the extent the securities are fully subscribed; and
- if applicable, the material terms of any standby underwriting or purchase arrangement which may be entered into by us in connection with the offering of subscription rights.

The descriptions of the subscription rights in this prospectus and in any prospectus supplement are summaries of the material provisions of the applicable subscription right agreements. These descriptions do not restate those subscription right agreements in their entirety and may not contain all the information that you may find useful. We urge you to read the applicable subscription right agreements because they, and not the summaries, define your rights as holders of the subscription rights. For more information, please review the forms of the relevant subscription right agreements, which will be filed with the SEC promptly after the offering of subscription rights and will be available as described in the section of this prospectus captioned “Where You Can Find More Information.”

GLOBAL SECURITIES

Book-Entry, Delivery and Form

Unless we indicate differently in any applicable prospectus supplement, the securities initially will be issued in book-entry form and represented by one or more global notes or global securities, or, collectively, global securities. The global securities will be deposited with, or on behalf of, The Depository Trust Company, New York, New York, as depositary, or DTC, and registered in the name of Cede & Co., the nominee of DTC. Unless and until it is exchanged for individual certificates evidencing securities under the limited circumstances described below, a global security may not be transferred except as a whole by the depositary to its nominee or by the nominee to the depositary, or by the depositary or its nominee to a successor depositary or to a nominee of the successor depositary.

DTC has advised us that it is:

- a limited-purpose trust company organized under the New York Banking Law;
- a "banking organization" within the meaning of the New York Banking Law;
- a member of the Federal Reserve System;
- a "clearing corporation" within the meaning of the New York Uniform Commercial Code; and
- a "clearing agency" registered pursuant to the provisions of Section 17A of the Exchange Act.

DTC holds securities that its participants deposit with DTC. DTC also facilitates the settlement among its participants of securities transactions, such as transfers and pledges, in deposited securities through electronic computerized book-entry changes in participants' accounts, thereby eliminating the need for physical movement of securities certificates. "Direct participants" in DTC include securities brokers and dealers, including underwriters, banks, trust companies, clearing corporations and other organizations. DTC is a wholly-owned subsidiary of The Depository Trust & Clearing Corporation, or DTCC. DTCC is the holding company for DTC, National Securities Clearing Corporation and Fixed Income Clearing Corporation, all of which are registered clearing agencies. DTCC is owned by the users of its regulated subsidiaries. Access to the DTC system is also available to others, which we sometimes refer to as indirect participants, that clear through or maintain a custodial relationship with a direct participant, either directly or indirectly. The rules applicable to DTC and its participants are on file with the SEC.

Purchases of securities under the DTC system must be made by or through direct participants, which will receive a credit for the securities on DTC's records. The ownership interest of the actual purchaser of a security, which we sometimes refer to as a beneficial owner, is in turn recorded on the direct and indirect participants' records. Beneficial owners of securities will not receive written confirmation from DTC of their purchases. However, beneficial owners are expected to receive written confirmations providing details of their transactions, as well as periodic statements of their holdings, from the direct or indirect participants through which they purchased securities. Transfers of ownership interests in global securities are to be accomplished by entries made on the books of participants acting on behalf of beneficial owners. Beneficial owners will not receive certificates representing their ownership interests in the global securities, except under the limited circumstances described below.

To facilitate subsequent transfers, all global securities deposited by direct participants with DTC will be registered in the name of DTC's partnership nominee, Cede & Co., or such other name as may be requested by an authorized representative of DTC. The deposit of securities with DTC and their registration in the name of Cede & Co. or such other nominee will not change the beneficial ownership of the securities. DTC has no knowledge of the actual beneficial owners of the securities. DTC's records reflect only the identity of the direct participants to whose accounts the securities are credited, which may or may not be the beneficial owners. The participants are responsible for keeping account of their holdings on behalf of their customers.

So long as the securities are in book-entry form, you will receive payments and may transfer securities only through the facilities of the depositary and its direct and indirect participants. We will maintain an office or agency in the location specified in the prospectus supplement for the applicable securities, where notices and demands in respect of the securities and the indenture may be delivered to us and where certificated securities may be surrendered for payment, registration of transfer or exchange.

Conveyance of notices and other communications by DTC to direct participants, by direct participants to indirect participants and by direct participants and indirect participants to beneficial owners will be governed by arrangements among them, subject to any legal requirements in effect from time to time.

Redemption notices will be sent to DTC. If less than all of the securities of a particular series are being redeemed, DTC's practice is to determine by lot the amount of the interest of each direct participant in the securities of such series to be redeemed.

Neither DTC nor Cede & Co. (or such other DTC nominee) will consent or vote with respect to the securities. Under Its usual procedures, DTC will mail an omnibus proxy to us as soon as possible after the record date. The omnibus proxy assigns the consenting or voting rights of Cede & Co. to those direct participants to whose accounts the securities of such series are credited on the record date, identified in a listing attached to the omnibus proxy.

So long as securities are in book-entry form, we will make payments on those securities to the depositary or its nominee, as the registered owner of such securities, by wire transfer of immediately available funds. If securities are issued in definitive certificated form under the limited circumstances described below and unless if otherwise provided in the description of the applicable securities herein or in the applicable prospectus supplement, we will have the option of making payments by check mailed to the addresses of the persons entitled to payment or by wire transfer to bank accounts in the United States designated in writing to the applicable trustee or other designated party at least 15 days before the applicable payment date by the persons entitled to payment, unless a shorter period is satisfactory to the applicable trustee or other designated party.

Redemption proceeds, distributions and dividend payments on the securities will be made to Cede & Co., or such other nominee as may be requested by an authorized representative of DTC. DTC's practice is to credit direct participants' accounts upon DTC's receipt of funds and corresponding detail information from us on the payment date in accordance with their respective holdings shown on DTC records. Payments by participants to beneficial owners will be governed by standing instructions and customary practices, as is the case with securities held for the account of customers in bearer form or registered in "street name." Those payments will be the responsibility of participants and not of DTC or us, subject to any statutory or regulatory requirements in effect from time to time. Payment of redemption proceeds, distributions and dividend payments to Cede & Co., or such other nominee as may be requested by an authorized representative of DTC, is our responsibility, disbursement of payments to direct participants is the responsibility of DTC, and disbursement of payments to the beneficial owners is the responsibility of direct and indirect participants.

Except under the limited circumstances described below, purchasers of securities will not be entitled to have securities registered in their names and will not receive physical delivery of securities. Accordingly, each beneficial owner must rely on the procedures of DTC and its participants to exercise any rights under the securities and the indenture.

The laws of some jurisdictions may require that some purchasers of securities take physical delivery of securities in definitive form. Those laws may impair the ability to transfer or pledge beneficial interests in securities.

DTC may discontinue providing its services as securities depositary with respect to the securities at any time by giving reasonable notice to us. Under such circumstances, in the event that a successor depositary is not obtained, securities certificates are required to be printed and delivered.

As noted above, beneficial owners of a particular series of securities generally will not receive certificates representing their ownership interests in those securities. However, if:

- DTC notifies us that it is unwilling or unable to continue as a depositary for the global security or securities representing such series of securities or if DTC ceases to be a clearing agency registered under the Exchange Act at a time when it is required to be registered and a successor depositary is not appointed within 90 days of the notification to us or of our becoming aware of DTC's ceasing to be so registered, as the case may be;

- we determine, in our sole discretion, not to have such securities represented by one or more global securities; or

- an Event of Default has occurred and is continuing with respect to such series of securities, we will prepare and deliver certificates for such securities in exchange for beneficial interests in the global securities

we will prepare and deliver certificates for such securities in exchange for beneficial interests in the global securities. Any beneficial interest in a global security that is exchangeable under the circumstances described in the preceding sentence will be exchangeable for securities in definitive certificated form registered in the names that the depositary directs. It is expected that these directions will be based upon directions received by the depositary from its participants with respect to ownership of beneficial interests in the global securities.

Euroclear and Clearstream

If so provided in the applicable prospectus supplement, you may hold interests in a global security through Clearstream Banking S.A., which we refer to as "Clearstream," or Euroclear Bank S.A./N.V., as operator of the Euroclear System, which we refer to as "Euroclear," either directly if you are a participant in Clearstream or Euroclear or indirectly through organizations which are participants in Clearstream or Euroclear. Clearstream and Euroclear will hold interests on behalf of their respective participants through customers' securities accounts in the names of Clearstream and Euroclear, respectively, on the books of their respective U.S. depositaries, which in turn will hold such interests in customers' securities accounts in such depositaries' names on DTC's books.

Clearstream and Euroclear are securities clearance systems in Europe. Clearstream and Euroclear hold securities for their respective participating organizations and facilitate the clearance and settlement of securities transactions between those participants through electronic book-entry changes in their accounts, thereby eliminating the need for physical movement of certificates.

Payments, deliveries, transfers, exchanges, notices and other matters relating to beneficial interests in global securities owned through Euroclear or Clearstream must comply with the rules and procedures of those systems. Transactions between participants in Euroclear or Clearstream, on one hand, and other participants in DTC, on the other hand, are also subject to DTC's rules and procedures.

Investors will be able to make and receive through Euroclear and Clearstream payments, deliveries, transfers and other transactions involving any beneficial interests in global securities held through those systems only on days when those systems are open for business. Those systems may not be open for business on days when banks, brokers and other institutions are open for business in the United States.

Cross-market transfers between participants in DTC, on the one hand, and participants in Euroclear or Clearstream, on the other hand, will be effected through DTC in accordance with the DTC's rules on behalf of Euroclear or Clearstream, as the case may be, by their respective U.S. depositaries; however, such cross-market transactions will require delivery of instructions to Euroclear or Clearstream, as the case may be, by the counterparty in such system in accordance with the rules and procedures and within the established deadlines (European time) of such system. Euroclear or Clearstream, as the case may be, will, if the transaction meets its settlement requirements, deliver instructions to its U.S. depositary to take DTC, and making or receiving payment in accordance with normal procedures for same-day fund settlement. Participants in Euroclear or Clearstream may not deliver instructions directly to their respective U.S. depositaries.

Due to time zone differences, the securities accounts of a participant in Euroclear or Clearstream purchasing an interest in a global security from a direct participant in DTC will be credited, and any such crediting will be reported to the relevant participant in Euroclear or Clearstream, during the securities settlement processing day (which must be a business day for Euroclear or Clearstream) immediately following the settlement date of DTC. Cash received in Euroclear or Clearstream as a result of sales of interests in a global security by or through a participant in Euroclear or Clearstream to a direct participant in DTC will be received with value on the settlement date of DTC but will be available in the relevant Euroclear or Clearstream cash account only as of the business day for Euroclear or Clearstream following DTC's settlement date.

Other

The information in this section of this prospectus concerning DTC, Clearstream, Euroclear and their respective book-entry systems has been obtained from sources that we believe to be reliable, but we do not take responsibility for this information. This information has been provided solely as a matter of convenience. The rules and procedures of DTC, Clearstream and Euroclear are solely within the control of those organizations and could change at any time. Neither we nor the trustee nor any agent of ours or of the trustee has any control over those entities and none of us takes any responsibility for their activities. You are urged to contact DTC, Clearstream and Euroclear or their respective participants directly to discuss those matters. In addition, although we expect that DTC, Clearstream and Euroclear will perform the foregoing procedures, none of them is under any obligation to perform or continue to perform such procedures and such procedures may be discontinued at any time. Neither we nor any agent of ours will have any responsibility for the performance or nonperformance by DTC, Clearstream and Euroclear or their respective participants of these or any other rules or procedures governing their respective operations.

PLAN OF DISTRIBUTION

We may sell the securities being offered by this prospectus separately or together:

- directly to purchasers;

- through agents;

- to or through underwriters;

- through dealers;

- in "at-the-market" offerings (as defined in Rule 415 under the Securities Act);

- through a block trade in which the broker or dealer engaged to handle the block trade will attempt to sell the securities as agent, but may position and resell a portion of the block as principal to facilitate the transaction;

- through a combination of any of these methods of sale; or

- through any other method permitted by applicable law and described in a prospectus supplement.

In addition, we may issue the securities being offered by this prospectus as a dividend or distribution. We may effect the distribution of the securities from time to time in one or more transactions

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

For example, we may engage in at-the-market offerings into an existing trading market in accordance with Rule 415(a)(4) under the Securities Act. We may also sell securities through a rights offering, forward contracts or similar arrangements. In any distribution of subscription rights to stockholders, if all of the underlying securities are not subscribed for, we may then sell the unsubscribed securities directly to third parties or may engage the services of one or more underwriters, dealers or agents, including standby underwriters, to sell the unsubscribed securities to third parties.

The securities issued and sold under this prospectus will have no established trading market, other than our common stock, which is listed on Nasdaq. We previously issued warrants to purchase shares of our common stock, which warrants are traded on the OTC Pink Open Market. Any shares of our common stock sold pursuant to this prospectus will be eligible for listing and trading on Nasdaq, subject to official notice of issuance. Any underwriters to whom securities are sold by us for public offering and sale may make a market in the securities, but the underwriters will not be obligated to do so and may discontinue any market making at any time without notice. The securities, other than our common stock, may or may not be listed on a national securities exchange or other trading market.

We will set forth in a prospectus supplement:

- the terms of any underwriting or other agreement that we reach relating to sales under this prospectus;
- the method of distribution of the securities;
- the names of any agents, underwriters or dealers, including any managing underwriters, used in the offering of securities;

- the terms of any direct sales, including the terms of any bidding or auction process, or the terms of any other transactions;
- any delayed delivery obligations to take the securities;
- the compensation payable to agents, underwriters and dealers, which may be in the form of discounts, concessions or commissions;
- any activities that may be undertaken by agents, underwriters and dealers to stabilize, maintain or otherwise affect the price of the securities; and
- any indemnification and contribution obligations owing to agents, underwriters and dealers.

If we sell directly to institutional investors or others, they may be deemed to be underwriters within the meaning of the Securities Act with respect to any resale of the securities. Unless otherwise indicated in a prospectus supplement, if we sell through an agent, such agent will be acting on a best-efforts basis for the period of its appointment. Any agent may be deemed to be an “underwriter” of the securities as that term is defined in the Securities Act. If a dealer is used in the sale of the securities, we or an underwriter will sell securities to the dealer, as principal. The dealer may resell the securities to the public at varying prices to be determined by the dealer at the time of resale.

To the extent permitted by and in accordance with Regulation M under the Exchange Act, in connection with an offering an underwriter may engage in over-allotments, stabilizing transactions, short covering transactions and penalty bids. Over-allotments involve sales in excess of the offering size, which creates a short position. Stabilizing transactions permit bids to purchase the underlying security so long as the stabilizing bids do not exceed a specified maximum. Short covering transactions involve purchases of the securities in the open market after the distribution is completed to cover short positions. Penalty bids permit the underwriters to reclaim a selling concession from a dealer when the securities originally sold by the dealer are purchased in a covering transaction to cover short positions. Those activities may cause the price of the securities to be higher than it would be otherwise. If commenced, the underwriters may discontinue any of the activities at any time.

To the extent permitted by and in accordance with Regulation M under the Exchange Act, any underwriters who are qualified market makers on Nasdaq may engage in passive market making transactions in the securities on Nasdaq during the business day prior to the pricing of an offering before the commencement of offers or sales of the securities. Passive market makers must comply with applicable volume and price limitations and must be identified as passive market makers. In general, a passive market maker must display its bid at a price not in excess of the highest independent bid for such security; if all independent bids are lowered below the passive market maker’s bid, however, the passive market maker’s bid must then be lowered when certain purchase limits are exceeded.

The specific terms of any lock-up provisions in respect of any given offering will be described in the applicable prospectus supplement.

The underwriters, dealers and agents may engage in transactions with us, or perform services for us, in the ordinary course of business for which they receive compensation.

No securities may be sold under this prospectus without delivery, in paper format or in electronic format, or both, of the applicable prospectus supplement describing the method and terms of the offering.

LEGAL MATTERS

The validity of the issuance of the securities offered hereby will be passed upon for us by Troutman Pepper Hamilton Sanders LLP. Additional legal matters may be passed upon for us or any underwriters, dealers or agents, by counsel that we will name in the applicable prospectus supplement. As appropriate, legal counsel representing the underwriters, dealers or agents will be named in the accompanying prospectus supplement and may opine to certain legal matters.

EXPERTS

The consolidated financial statements of Ensysce Biosciences, Inc. as of and for the years ended December 31, 2021 and 2020, appearing in Ensysce's Registration Statement on Form S-1 (File No. 333-268038), as amended, have been audited by Mayer Hoffman McCann P.C., independent registered public accounting firm, as set forth in their report (which report includes an explanatory paragraph regarding the existence of substantial doubt about Ensysce's ability to continue as a going concern), and have been incorporated herein by reference in reliance upon such report given on the authority of such firm as experts in accounting and auditing, in giving said reports.

2,490,798 Shares of Common Stock
1,062,396 Pre-funded Warrants to Purchase up to 1,062,396 Shares of Common Stock
Up to 1,062,396 Shares of Common Stock Underlying the Pre-Funded Warrants

Ensysce Biosciences, Inc.

Prospectus Supplement

H.C. Wainwright & Co.

August 28, 2024