

PROSPECTUS SUPPLEMENT NO. 4



This prospectus supplement amends and supplements the prospectus dated September 27, 2021, as supplemented or amended from time to time (the "Prospectus"), which forms a part of our Registration Statement on Form S-1 (No. 333-258609). This prospectus supplement is being filed to update and supplement the information in the Prospectus with the information contained in our Current Report on Form 8-K, filed with the U.S. Securities and Exchange Commission on January 18, 2022 (the "Current Report"). Accordingly, we have attached the Current Report to this prospectus supplement.

The Prospectus and this prospectus supplement relate to the issuance by us and the resale by the selling security holders named in the Prospectus (the "Selling Securityholders") of up to an aggregate of 27,132,398 shares of our common stock, par value \$0.0001 per share ("common stock"), which consists of (i) up to 500,000 shares of common stock that are issuable upon the exercise of 500,000 warrants issued to DelMorgan Group LLC ("DelMorgan") under the terms of the Email Agreement, dated January 31, 2021, among Ensysce Biosciences, Inc. (the "Company") and DelMorgan, as amended by the First Amendment to the Email Agreement, dated June 7, 2021 (the "Email Agreement"), (ii) up to an aggregate of approximately 10,000,000 shares of common stock that are issuable upon the exercise of 10,000,000 warrants (the "Public Warrants") issued in connection with the initial public offering of our predecessor company, Leisure Acquisition Corp., a Delaware corporation ("LACQ"), (the "LACQ IPO"), (iii) up to an aggregate of 6,325,000 shares of common stock that are issuable upon the exercise of 6,325,000 warrants issued in connection with a private placement that closed simultaneously with the consummation of the LACQ IPO (the "Private Placement Warrants"), (iv) up to an aggregate of 1,000,001 shares of common stock that are issuable upon the exercise of 1,000,001 warrants issued in exchange for outstanding loans under the Expense Advancement Agreement dated December 1, 2017 among LACQ, Hydra Management, LLC ("Hydra"), Matthews Lane Capital Partners LLC ("MLCP" and together with Hydra, the "Sponsors"), and HG Vora Capital Management LLC on behalf of one or more funds or accounts managed by it (the "Strategic Investor") (the "Expense Advancement Agreement"), (v) up to an aggregate of 566,288 shares of common stock that are issuable upon exercise of 566,288 warrants issued in exchange for previously outstanding loans under the Expense Advancement Agreement dated December 5, 2019 between LACQ and Gateway Holdings Limited, as amended (the "GTWY Expense Advancement Agreement") (collectively with the warrants described in (iv) herein, the "other private warrants"), (vi) up to an aggregate of 510,001 shares of common stock that are issuable upon exercise of 510,001 warrants issued at the closing of the business combination (as defined below) in exchange for outstanding loans under the Expense Advancement Agreement, (vii) up to 1,106,108 shares of common stock that are issuable upon exercise of 1,106,108 warrants issued at the closing of the business combination (as defined below) in connection with the GEM Agreement (as defined below) (the "GEM Warrants"), (viii) 125,000 shares of common stock issuable in satisfaction of \$2,000,000 of deferred underwriting fees payable to the underwriters, (ix) 500,000 shares of common stock issuable to DelMorgan under the terms of the Email Agreement, (x) 5,000,000 shares of common stock purchased by the Sponsors and Strategic Investor in a private placement prior to the LACQ IPO (the "founder shares"), (xi) up to an aggregate of 500,000 shares of common stock issuable to David J. Kovacs and Mercury FundingCo, LLC (David Tanzer, Managing Member) (together, the "Consultants"), and (xii) up to 1,000,000 shares of common stock that are issuable upon the exercise of 1,000,000 warrants issued to the Consultants.

On June 30, 2021, we consummated the transactions contemplated by that certain Agreement and Plan of Merger, dated as of January 31, 2021 (the "Merger Agreement"), by and among the Company, LACQ and EB Merger Sub, Inc., a Delaware corporation and wholly-owned subsidiary of LACQ ("Merger Sub"), with the Company surviving such merger as a wholly-owned subsidiary of LACQ (the "Merger"). The Merger, together with the other transactions contemplated by the Merger Agreement and the related agreements, are referred to herein as the "Transactions." In connection with the consummation of the Transactions, LACQ changed its name to "Ensysce Biosciences, Inc."

Our registration of the securities covered by the Prospectus and this prospectus supplement does not mean that either we or the Selling Securityholders will issue, offer or sell, as applicable, any of the securities hereby registered. The Selling Securityholders may offer, sell, or distribute all or a portion of the securities hereby registered publicly or through private transactions at prevailing market prices or at negotiated prices. We will not receive any of the proceeds from such sales of our common stock or warrants by the Selling Securityholders pursuant to the Prospectus and this prospectus supplement, except with respect to amounts received by us upon exercise of the Warrants to the extent such Warrants are exercised for cash. We will bear all costs, expenses and fees in connection with the registration of these securities, including with regard to compliance with state securities or "blue sky" laws. The Selling Securityholders will bear all commissions and discounts, if any, attributable to their sale of shares of our common stock. Most of the Selling Securityholders are subject to lock-up arrangements. See "Plan of Distribution" beginning on page 128 of the Prospectus.

You should read the Prospectus, this prospectus supplement and any additional prospectus supplement or amendment carefully before you invest in our securities.

Our common stock is listed on the Nasdaq under the symbol "ENSC" and our Public Warrants are listed on the OTC Pink Open Market under the symbol "ENSCW." On January 14, 2022, the closing sale price of our common stock as reported on Nasdaq was \$3.28 and the closing sale price for our Public Warrants as reported on the OTC Pink Open Market was \$0.20.

This prospectus supplement updates and supplements the information in the Prospectus and is not complete without, and may not be delivered or utilized except in combination with, the Prospectus, including any amendments or supplements thereto. This prospectus supplement should be read in conjunction with the Prospectus and if there is any inconsistency between the information in the Prospectus and this prospectus supplement, you should rely on the information in this prospectus supplement.

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

Our business and investing in our securities involves a high degree of risk. See "Risk Factors" beginning on page 9 of the Prospectus and in the other documents that are incorporated by reference in the Prospectus.

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

The date of this prospectus supplement is January 18, 2022.

**UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
WASHINGTON, D.C. 20549**

FORM 8-K

**CURRENT REPORT
Pursuant to Section 13 or 15(d)
of the Securities Exchange Act of 1934**

Date of Report (Date of earliest event reported): January 18, 2022 (January 14, 2022)

Ensysce Biosciences, Inc.
(Exact name of registrant as specified in its charter)

Delaware
(State or other jurisdiction of
incorporation or organization)

001-38306
(Commission
File Number)

82-2755287
(I.R.S. Employer
Identification Number)

7946 Ivanhoe Avenue, Suite 201
La Jolla, California
(Address of principal executive offices)

92037
(Zip Code)

(858) 263-4196
Registrant's telephone number, including area code

N/A
(Former name or former address, if changed since last report)

Check the appropriate box below if the Form 8-K filing is intended to simultaneously satisfy the filing obligation to the registrant under any of the following provisions:

- Written communications pursuant to Rule 425 under the Securities Act (17 CFR 230.425)
- Soliciting material pursuant to Rule 14a-12 under the Exchange Act (17 CFR 240.14a-12)
- Pre-commencement communications pursuant to Rule 14d-2(b) under the Exchange Act (17 CFR 240.14d-2(b))
- Pre-commencement communications pursuant to Rule 13e-4(c) under the Exchange Act (17 CFR 240.13e-4(c))

Securities registered pursuant to Section 12(b) of the Act:

Title of each class	Trading Symbol(s)	Name of each exchange on which registered
Common Stock, par value \$0.0001 per share	ENSC	The Nasdaq Stock Market LLC
Warrants to purchase one share of Common Stock	ENSCW	The Nasdaq Stock Market LLC

Emerging growth company

If an emerging growth company, indicate by check mark if the registrant has elected not to use the extended transition period for complying with any new or revised financial accounting standards provided pursuant to Section 13(a) of the Exchange Act.

Item 1.01. Entry into a Material Definitive Agreement.

On September 24, 2021, Ensysce Biosciences, Inc. ("Ensysce" or the "Company") entered into a Securities Purchase Agreement (the "SPA") for an aggregate financing of \$15 million with institutional investors. A first closing under the SPA occurred on September 24, 2021 and was reported in a Current Report filed on September 27, 2021 and a second closing under the SPA occurred on November 5, 2021 and was reported in a Current Report filed on November 10, 2021. At the first closing, the Company issued to the investors (i) senior secured convertible promissory notes in the aggregate principal amount of \$5.3 million for an aggregate purchase price of \$5 million (collectively, the "Notes") and (ii) warrants (collectively, the "Warrants") to purchase 361,158 shares of the Company's common stock, par value \$0.0001 per share (the "Common Stock") in the aggregate. At the second closing, the Company issued to the institutional investors referenced above, (i) Notes in the aggregate principal amount of \$10.6 million for an aggregate purchase price of \$10 million and (i) Warrants to purchase 722,317 shares of the Common Stock in the aggregate. Under the SPA, the conversion price for converting Notes into the Company's common stock is \$5.87 per share, subject to adjustment under certain events.

On December 27, 2021, the parties to the SPA agreed to a Letter Agreement amending the SPA ("Letter Agreement"). Under the terms of the Letter Agreement, holders of the Notes were entitled to convert notes at an exercise price of \$4.50 per share of Company Common Stock for fourteen trading days, commencing December 28, 2021 and ending January 14, 2022. Under the terms of the Letter Agreement, following this period, the initial conversion price of \$5.87 will apply. There was no change to the exercise price of the Warrants. The Letter Agreement also included certain conditions that the Company must satisfy in connection with the transaction. The Letter Agreement expired on January 14, 2022.

On January 16, 2022, the parties to the SPA agreed to a Second Letter Agreement amending the SPA ("Second Letter Agreement"). Under the terms of the Second Letter Agreement, holders of the Notes may convert notes at an exercise price of \$3.80 per share of Company Common Stock commencing January 18, 2022 and ending

February 11, 2022. Following this period, the initial conversion price of \$5.87 will apply. There is no change to the exercise price of the Warrants. The Second Letter Agreement also includes certain conditions that the Company must satisfy in connection with the transaction.

The Company has registered with the Securities and Exchange Commission (the "SEC") the resale of the shares of Common Stock issuable upon conversion of the Notes as well as the shares of Common Stock issuable upon the exercise of the Warrants pursuant to the Registration Rights Agreement, dated September 24, 2021, by and among the Company and the purchasers signatory to the SPA.

Item 2.03. Creation of a Direct Financial Obligation or an Obligation under an Off-Balance Sheet Arrangement of a Registrant

The information provided under Item 1.01 in this Current Report on Form 8-K is incorporated by reference into this Item 2.03.

Item 3.02. Unregistered Sales of Equity Securities

The information set forth in Item 1.01 of this Current Report on Form 8-K is incorporated herein by reference. The Notes and the Warrants were issued without registration under the Securities Act of 1933, as amended (the "Securities Act"), based on the exemption from registration afforded by Section 4(a)(2) of the Securities Act.

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Item 9.01. Financial Statements and Exhibits

(d) Exhibits

<u>Exhibit No.</u>	<u>Description</u>
4.6	Form of Senior Secured Convertible Promissory Note issued by the Company pursuant to and in accordance with the Securities Purchase Agreement (incorporated by reference to Exhibit 4.6 filed with Ensysce Biosciences, Inc.'s Current Report on Form 8-K on September 27, 2021).
4.7	Form of Common Stock Purchase Warrant to be issued by the Company pursuant to and in accordance with the Securities Purchase Agreement (incorporated by reference to Exhibit 4.7 filed with Ensysce Biosciences, Inc.'s Current Report on Form 8-K on September 27, 2021).
10.1*	Securities Purchase Agreement, dated September 24, 2021, by and among the Company and the purchasers signatory thereto (incorporated by reference to Exhibit 10.1 filed with Ensysce Biosciences, Inc.'s Current Report on Form 8-K on September 27, 2021).
10.2	Registration Rights Agreement, dated September 24, 2021, by and among the Company and the parties signatory thereto (incorporated by reference to Exhibit 10.2 filed with Ensysce Biosciences, Inc.'s Current Report on Form 8-K on September 27, 2021).
10.3	Subsidiary Guarantee, dated September 24, 2021, by and among the Company and the purchasers signatory thereto (incorporated by reference to Exhibit 10.3 filed with Ensysce Biosciences, Inc.'s Current Report on Form 8-K on September 27, 2021).
10.4*	Security Agreement, dated September 24, 2021, by and among the Company, EBI OpCo, Inc., Covistat, Inc. and the other parties signatory thereto (incorporated by reference to Exhibit 10.4 filed with Ensysce Biosciences, Inc.'s Current Report on Form 8-K on September 27, 2021).
10.5*	Patent Security Agreement, dated September 24, 2021, by and among the Company, EBI OpCo, Inc., Covistat, Inc. and the other parties signatory thereto (incorporated by reference to Exhibit 10.5 filed with Ensysce Biosciences, Inc.'s Current Report on Form 8-K on September 27, 2021).
10.6	Letter Agreement, dated December 27, 2021, by and among the Company and the parties signatory thereto (incorporated by reference to Exhibit 10.6 filed with Ensysce Biosciences, Inc.'s Current Report on Form 8-K on December 27, 2021).
10.7	Second Letter Agreement, dated January 16, 2022, by and among the Company and the parties signatory thereto.
104	Cover Page Interactive Data File (embedded within the Inline XBRL document)

* Schedules, exhibits and similar supporting attachments to this exhibit are omitted pursuant to Item 601(b)(2) of Regulation S-K. We agree to furnish a supplemental copy of any omitted schedule or similar attachment to the SEC upon request.

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SIGNATURES

Pursuant to the requirements of the Securities Exchange Act of 1934, the Registrant has duly caused this report to be signed on its behalf by the undersigned hereunto duly authorized.

Dated: January 18, 2022

Ensysce Biosciences, Inc.

By: /s/ Lynn Kirkpatrick

Name: Dr. Lynn Kirkpatrick

Title: President and Chief Executive Officer

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Exhibit 10.7

EXECUTION VERSION

EnsysceTM
biosciences

January 16, 2022

3i, LP
140 Broadway FL 38
New York, NY 10005

Anson Investments Master Fund LP

c/o Anson Advisors Inc. 155 University Ave., Suite 207
Toronto, ON Canada M5H3B7

Anson East Master Fund LP
c/o Anson Advisors Inc. 155 University Ave., Suite 207
Toronto, ON Canada M5H3B7

Re: Second Amendment of the Senior Secured Convertible Notes

Dear Sirs:

Reference is made to (a) that certain Securities Purchase Agreement (as modified from time to time, the "**Purchase Agreement**"), dated as of September 24, 2021, between the Company and the purchasers identified therein, which are the same as the three addressees listed above (collectively, the "**Investors**") and (b) the Senior Secured Convertible Promissory Notes (as modified from time to time, the "**Senior Secured Convertible Notes**"), and (c) and the other transaction documents, as modified from time to time, referred to collectively, as the "**Transaction Documents**"). Capitalized terms used but not defined herein shall have the meanings given to them in the Purchase Agreement, or if not defined therein, in the Notes, or if not defined therein, in the applicable Transaction Document, in each case as of the date hereof.

This second letter agreement (this "**Second Letter Agreement**") confirms our recent discussions about, among other matters, certain modifications to the Senior Secured Convertible Notes.

- (1) The Fixed Conversion Price as identified on the facing page of the Senior Secured Convertible Notes and in Section 4(b) of the Senior Secured Convertible Notes shall be \$3.80 for the Trading Days of January 18, 2022 through and inclusive of February 11, 2022. Any conversion which occurs shall be voluntary at the election of the Holder, which shall evidence its election as to the note being converted in writing on a conversion notice. Thereafter the Fixed Conversion Price shall revert to the original Fixed Conversion Price of \$5.87, subject to any future adjustments as provided in the Senior Secured Convertible Notes. To be free from doubt, the Exercise Price set for in the Warrants shall not be modified pursuant to this Second Letter Agreement.

The Company hereby agrees, for itself and its Subsidiaries, that the Guarantors continue to guaranty, pursuant to the Guaranty, as primary obligor and not as surety, the full and punctual payment when due of the obligations owing under the Notes and the other Transaction Documents as modified hereby (as limited by the original terms of the Guaranty) and that the terms hereof shall not affect in any way their obligations and liabilities, as expressly modified hereby, under the Transaction Documents. The Company, for itself and its Subsidiaries, hereby reaffirms (a) all such obligations and liabilities and agrees that such obligations and liabilities shall remain in full force and effect and (b) the security interests granted under the Transaction Documents and agrees that such security interests shall continue to secure such obligations and liabilities.

This Second Letter Agreement is a Transaction Document and is limited as written. As of the date first written above, each reference in the Purchase Agreement or any other applicable Transaction Document to "**this Agreement**," "**hereunder**," "**hereof**," "**herein**," or words of like import, and each reference in the other Transaction Documents to such Purchase Agreement or other Transaction Documents (including, without limitation, by means of words like "**thereunder**," "**thereof**" and words of like import), shall refer to the Purchase Agreement as modified thereby, and this Second Letter Agreement and the Purchase Agreement shall be read together and construed as a single agreement. The execution, delivery and effectiveness of this Second Letter Agreement shall not, except as expressly provided herein, (A) waive or modify any right, power or remedy under, or any other provision of, any Transaction Document or (B) commit or otherwise obligate any Purchaser to enter into or consider entering into any other amendment, waiver or modification of any Transaction Document.

All communications and notices hereunder shall be given as provided in the Transaction Documents. This Second Letter Agreement (a) shall be governed by and construed in accordance with the law of the State of New York, (b) is for the exclusive benefit of the parties hereto and the other Purchasers and beneficiaries of the Purchaser Agreement and, together with the other Transaction Documents, constitutes the entire agreement of such parties, superseding all prior agreements among them, with respect to the subject matter hereof, (c) may be modified, waived or assigned only in writing and only to the extent such modification, waiver or assignment would be permitted under the Transaction Documents (and any attempt to assign this Second Letter Agreement without such writing shall be null and void), (d) is a negotiated document, entered into freely among the parties upon advice of their own counsel, and it should not be construed against any of its drafters and (e) shall survive the satisfaction or discharge of the amounts owing under the Transaction Documents. The fact that any term or provision of this Second Letter Agreement is held invalid, illegal or unenforceable as to any person in any situation in any jurisdiction shall not affect the validity, enforceability or legality of the remaining terms or provisions hereof or the validity, enforceability or legality of such offending term or provision in any other situation or jurisdiction or as applied to any person.

This Second Letter Agreement is expressly conditioned on the following conditions precedent:

- (1) The Company shall file before 8:30AM New York time on January 18, 2022, a current report on Form 8-K with the Securities and Exchange Commission disclosing the material terms of this Second Letter Agreement contemplated hereby, including such Second Letter Agreement as an exhibit thereto;
- (2) The Company shall file with The Nasdaq Stock Market LLC such notice or application or shall have determined that no such filing is necessary;
- (3) The Company shall have confirmed with each signatory to those certain voting agreements entered into in accordance with Section 4.11(b) of the Purchase Agreement reaffirming that such voting agreement is in force notwithstanding the provisions of this Second Letter Agreement or shall amend and restate each voting agreement to approve this Second Letter Agreement and shall supply written proof to the Investors, which may be in the form of a forwarded email from each signatory;
- (4) The Company's Board of Directors shall have approved this Second Letter Agreement and all undertakings thereto in all respects and shall provide written evidence of the same to the Investors by January 18, 2022;
- (5) The Company shall file prior to 9:30 AM New York time on January 18, 2022, a prospectus supplement to that certain registration statement on Form S-1 (File No. 333-260478) providing for the terms of this Second Letter Agreement and/or such other Post-Effective Amendment as may be required, which filing shall have been accepted and effective as may be required or applicable;
- (6) The Company shall have verified and confirmed with its transfer agent that there are no impediments to the issuance of shares as a result of this Second Letter Agreement; and
- (7) The Company shall ensure that appropriate disclosure of this Second Letter Agreement is made to its stockholders in relation to that special meeting of stockholders to be held on January 26, 2022.

Kindly confirm your agreement with the above by signing in the space indicated below and by PDFing a partially executed copy of this letter to the undersigned, and which may be executed in identical counterparts, each of which shall be deemed an original but all of which shall constitute one and the same agreement.

Very truly yours,

ENSYSCE BIOSCIENCES, INC.

By: /s/ Lynn Kirkpatrick
Dr. Lynn Kirkpatrick
Chief Executive Officer

AGREED AND ACCEPTED:

3i, LP

By: /s/ Maier Tarlow
Name: Maier Tarlow
Title: Manager, On Behalf Of The GP

[Signatures follow on next page]

Anson Investments Master Fund LP

By: /s/ Amin Nathoo
Name: Amin Nathoo
Title: Director, Anson Advisors Inc.

Anson East Master Fund LP

By: /s/ Amin Nathoo
Name: Amin Nathoo
Title: Director, Anson Advisors Inc.
