

SECURITIES AND EXCHANGE COMMISSION  
Washington, D.C. 20549

SCHEDULE 13G

(Rule 13d-102)

INFORMATION TO BE INCLUDED IN STATEMENTS FILED PURSUANT  
TO § 240.13d-1(b), (c) AND (d) AND AMENDMENTS THERETO FILED  
PURSUANT TO § 240.13d-2.

(Amendment No. 1)\*

**Ensysce Biosciences, Inc.**  
(Name of Issuer)

Common Stock, \$0.0001 par value per share  
(Title of Class of Securities)

293602207  
(CUSIP Number)

December 31, 2022  
(Date of Event Which Requires Filing of this statement)

Check the appropriate box to designate the rule pursuant to which this Schedule is filed:

- Rule 13d-1(b)  
 Rule 13d-1(c)  
 Rule 13d-1(d)

\*The remainder of this cover page shall be filled out for a reporting person's initial filing on this form with respect to the subject class of securities, and for any subsequent amendment containing information which would alter the disclosures provided in a prior cover page.

The information required in the remainder of this cover page shall not be deemed to be "filed" for purposes of Section 18 of the Securities Exchange Act of 1934 ("Act") or otherwise subject to the liabilities of that section of the Act but shall be subject to all other provisions of the Act (however, see the Notes).

CUSIP No: 293602207

(1) NAMES OF REPORTING PERSONS

CVI Investments, Inc.

(2) CHECK THE APPROPRIATE BOX IF A MEMBER OF A GROUP (SEE INSTRUCTIONS)

(a)   
(b)

(3) SEC USE ONLY

(4) CITIZENSHIP OR PLACE OF ORGANIZATION

Cayman Islands

NUMBER OF (5) SOLE VOTING POWER  
SHARES 0

BENEFICIALLY (6) SHARED VOTING POWER \*\*  
OWNED BY 336,872

EACH (7) SOLE DISPOSITIVE POWER  
REPORTING 0

PERSON WITH (8) SHARED DISPOSITIVE POWER \*\*  
336,872

(9) AGGREGATE AMOUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON

336,872

(10) CHECK BOX IF THE AGGREGATE AMOUNT IN ROW (9) EXCLUDES CERTAIN SHARES (SEE INSTRUCTIONS)

(11) PERCENT OF CLASS REPRESENTED BY AMOUNT IN ROW (9)  
4.9%

(12) TYPE OF REPORTING PERSON (SEE INSTRUCTIONS)  
CO

\*\* Heights Capital Management, Inc. is the investment manager to CVI Investments, Inc. and as such may exercise voting and dispositive power over these shares.

CUSIP No: 293602207

(1) NAMES OF REPORTING PERSONS  
Heights Capital Management, Inc.

(2) CHECK THE APPROPRIATE BOX IF A MEMBER OF A GROUP (SEE INSTRUCTIONS)  
(a)   
(b)

(3) SEC USE ONLY

(4) CITIZENSHIP OR PLACE OF ORGANIZATION  
Delaware

NUMBER OF SHARES BENEFICIALLY OWNED BY EACH REPORTING PERSON WITH	(5) SOLE VOTING POWER
	0
	(6) SHARED VOTING POWER **
	336,872
	(7) SOLE DISPOSITIVE POWER
	0
	(8) SHARED DISPOSITIVE POWER **
	336,872

(9) AGGREGATE AMOUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON  
336,872

(10) CHECK BOX IF THE AGGREGATE AMOUNT IN ROW (9) EXCLUDES CERTAIN SHARES (SEE INSTRUCTIONS)

(11) PERCENT OF CLASS REPRESENTED BY AMOUNT IN ROW (9)  
4.9%

(12) TYPE OF REPORTING PERSON (SEE INSTRUCTIONS)  
CO

\*\* Heights Capital Management, Inc. is the investment manager to CVI Investments, Inc. and as such may exercise voting and dispositive power over these shares.

CUSIP No: 293602207

Item 1.

(a) Name of Issuer

Ensysce Biosciences, Inc. (the "Company")

(b) Address of Issuer's Principal Executive Offices

7946 Ivanhoe Avenue, Suite 201, La Jolla, CA 92037

Item 2(a). Name of Person Filing

This statement is filed by the entities listed below, who are collectively referred to herein as "Reporting Persons," with respect to the shares of common stock of the Company, \$0.0001 par value per share (the "Shares").

(i) CVI Investments, Inc.

(ii) Heights Capital Management, Inc.

Item 2(b). Address of Principal Business Office or, if none, Residence

The address of the principal business office of CVI Investments, Inc. is:

P.O. Box 309GT  
Ugland House  
South Church Street  
George Town  
Grand Cayman  
KY1-1104  
Cayman Islands

The address of the principal business office of Heights Capital Management, Inc. is:

101 California Street, Suite 3250  
San Francisco, California 94111

Item 2(c). Citizenship

Citizenship is set forth in Row 4 of the cover page for each Reporting Person hereto and is incorporated herein by reference for each such Reporting Person.

Item 2(d) Title of Class of Securities

Common stock, \$0.0001 par value per share

Item 2(e) CUSIP Number

293602207

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CUSIP No: 293602207

Item 3. If this statement is filed pursuant to §§240.13d-1(b) or 240.13d-2(b) or (c), check whether the person filing is a:

- (a)  Broker or dealer registered under Section 15 of the Act (15 U.S.C. 78o).
- (b)  Bank as defined in Section 3(a)(6) of the Act (15 U.S.C. 78c).
- (c)  Insurance company as defined in Section 3(a)(19) of the Act (15 U.S.C. 78c).
- (d)  Investment company registered under Section 8 of the Investment Company Act of 1940 (15 U.S.C. 80a-8).
- (e)  An investment adviser in accordance with §240.13d-1(b)(1)(ii)(E);
- (f)  An employee benefit plan or endowment fund in accordance with §240.13d-1(b)(1)(ii)(F);
- (g)  A parent holding company or control person in accordance with §240.13d-1(b)(1)(ii)(G);
- (h)  A savings association as defined in Section 3(b) of the Federal Deposit Insurance Act (12 U.S.C. 1813);
- (i)  A church plan that is excluded from the definition of an investment company under Section 3(c)(14) of the Investment Company Act of 1940 (15 U.S.C. 80a-3);
- (j)  A non-U.S. institution in accordance with §240.13d-1(b)(1)(ii)(J);
- (k)  Group, in accordance with Rule 13d-1(b)(1)(ii)(K).

If filing as a non-U.S. institution in accordance with §240.13d-1(b)(1)(ii)(J), please specify the type of institution: \_\_\_\_\_

Item 4. Ownership

Provide the following information regarding the aggregate number and percentage of the class of securities of the issuer identified in Item 1.

The information required by Items 4(a) – (c) is set forth in Rows 5 – 11 of the cover page for each Reporting Person hereto and is incorporated herein by reference for each such Reporting Person.

The number of Shares reported as beneficially owned consists of Shares issuable upon the exercise of warrants to purchase Shares (the “Warrants”). The Warrants are not exercisable to the extent that the total number of Shares then beneficially owned by a Reporting Person and its affiliates and any other persons whose beneficial ownership of Shares would be aggregated with such Reporting Person for purposes of Section 13(d) of the Exchange Act, would exceed 4.99%.

The Company’s Prospectus Supplement (to Prospectus dated January 6, 2023, Registration No. 333-269157), filed on February 6, 2023, indicates there were 6,414,074 Shares outstanding as of December 30, 2022.

Heights Capital Management, Inc., which serves as the investment manager to CVI Investments, Inc., may be deemed to be the beneficial owner of all Shares owned by CVI Investments, Inc. Each of the Reporting Persons hereby disclaims any beneficial ownership of any such Shares, except for their pecuniary interest therein.

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CUSIP No: 293602207

Item 5. Ownership of Five Percent or Less of a Class

If this statement is being filed to report the fact that as of the date hereof the reporting person has ceased to be the beneficial owner of more than five percent of the class of securities, check the following:

Item 6. Ownership of More than Five Percent on Behalf of Another Person

Not applicable.

Item 7. Identification and Classification of the Subsidiary Which Acquired the Security Being Reported on by the Parent Holding Company or Control Person

Not applicable.

Item 8. Identification and Classification of Members of the Group

Not applicable.

Item 9. Notice of Dissolution of Group

Not applicable.

Item 10. Certification

By signing below each of the undersigned certifies that, to the best of its knowledge and belief, the securities referred to above were not acquired and are not held for the purpose of or with the effect of changing or influencing the control of the issuer of the securities and were not acquired and are not held in connection with or as a participant in any transaction having that purpose or effect.

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CUSIP No: 293602207

SIGNATURES

After reasonable inquiry and to the best of its knowledge and belief, each of the undersigned certifies that the information with respect to it set forth in this statement is true, complete, and correct.

Dated: February 10, 2023

CVI INVESTMENTS, INC.

By: Heights Capital Management, Inc. pursuant to a Limited Power of Attorney, a copy of which was previously filed

By: /s/ Brian Sopinsky  
Name: Brian Sopinsky  
Title: Secretary

HEIGHTS CAPITAL MANAGEMENT, INC.

By: /s/ Brian Sopinsky  
Name: Brian Sopinsky  
Title: Secretary

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CUSIP No: 293602207

**EXHIBIT INDEX**

<b>EXHIBIT</b>	<b>DESCRIPTION</b>
I	Limited Power of Attorney*
II	Joint Filing Agreement*

\*Previously filed

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