UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
Washington, D.C. 20549

FORM 10-K/A

(Amendment No. 1)

(Mark One)

☒ **ANNUAL REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934**

For the fiscal year ended December 31, 2022

or

☐ **TRANSITION REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934**

For the transition period from to

Commission File No. 000-30319

INNOVIVA, INC.

(Exact name of registrant as specified in its charter)

Delaware	**94-3265960**
(State or other jurisdiction of incorporation or organization)	(I.R.S. Employer Identification No.)
1350 Old Bayshore Highway, Suite 400 Burlingame, CA	**94010**
(Address of principal executive offices)	(Zip Code)

Registrant's telephone number, including area code: **(650) 238-9600**

Title of Each Class	**Trading Symbol(s)**	**Name of Each Exchange On Which Registered**
Common Stock $0.01 Par Value	INVA	The Nasdaq Stock Market LLC

SECURITIES REGISTERED PURSUANT TO SECTION 12(g) OF THE ACT: **NONE**

Indicate by check mark if the registrant is a well-known seasoned issuer, as defined in Rule 405 of the Securities Act. Yes ☒ No ☐

Indicate by check mark if the registrant is not required to file reports pursuant to Section 13 or Section 15(d) of the Act. Yes ☐ No ☒

Indicate by check mark whether the registrant (1) has filed all reports required to be filed by Section 13 or 15(d) of the Securities Exchange Act of 1934 during the preceding 12 months (or for such shorter period that the registrant was required to file such reports), and (2) has been subject to such filing requirements for the past 90 days. Yes ☒ No ☐

Indicate by check mark whether the registrant has submitted electronically every Interactive Data File required to be submitted pursuant to Rule 405 of Regulation S-T (§ 232.405 of this chapter) during the preceding 12 months (or for such shorter period that the registrant was required to submit such files). Yes ☒ No ☐

Indicate by check mark whether registrant is a large accelerated filer, an accelerated filer or a non-accelerated filer. See definition of "accelerated filer and large accelerated filer" in Rule 12b-2 of the Exchange Act (Check One):

Large accelerated filer ☒ Accelerated filer ☐ Non-accelerated filer ☐ Smaller reporting company ☐

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. ☐

Indicate by check mark whether the registrant has filed a report on and attestation to its management's assessment of the effectiveness of its internal control over financial reporting under Section 404(b) of the Sarbanes-Oxley Act (15 U.S.C. 7262(b)) by the registered public accounting firm that prepared or issued its audit report. ☒

If securities are registered pursuant to Section 12(b) of the Act, indicate by check mark whether the financial statements of the registrant included in the filing reflect the correction of an error to previously issued financial statements. ☐

Indicate by check mark whether any of those error corrections are restatements that required a recovery analysis of incentive-based compensation received by any of the registrant's executive officers during the relevant recovery period pursuant to §240.10D-1(b). ☐

Indicate by check mark whether the registrant is a shell company (as defined in Rule 12b-2 of the Exchange Act). Yes ☐ No ☒

The aggregate market value of the voting and non-voting common equity held by non-affiliates of the registrant based upon the closing price of the registrant's Common Stock on The Nasdaq Global Select Market on June 30, 2022 was $923,930,805. This calculation does not reflect a determination that persons are affiliates for any other purpose.

On February 14, 2023, there were 68,126,089 shares of the registrant's Common Stock outstanding.

DOCUMENTS INCORPORATED BY REFERENCE

Specified portions of the registrant's definitive Proxy Statement to be issued in conjunction with the registrant's 2023 Annual Meeting of Stockholders, which is expected to be filed not later than 120 days after the registrant's fiscal year ended December 31, 2022, are incorporated by reference into Part III of this Annual Report. Except as expressly incorporated by reference, the registrant's Proxy Statement shall not be deemed to be a part of this Annual Report on Form 10-K/A.

EXPLANATORY NOTE

This Amendment No. 1 on Form 10-K/A (the "Amendment") amends the Annual Report on Form 10-K of Innoviva, Inc. (the "Company") for the year ended December 31, 2022, originally filed on February 28, 2023 (the "Original Filing"), is being filed pursuant to and in compliance with the time requirements of Rule 3-09 of Regulation S-X, to amend Item 15, Exhibits and Financial Statement Schedules, to include the Audited Consolidated Financial Statements of Armata Pharmaceuticals, Inc. ("Armata") at December 31, 2022 and 2021 and for the years then ended and the Consent of Ernst & Young LLP Independent Registered Public Accounting Firm of Armata as Exhibit 99.1 and Exhibit 23.3, respectively. These exhibits were not available at the time of our Original Filing. Additional information on the Audited Consolidated Financial Statements of Armata for the year ended December 31, 2020 can be found in the Company's Amendment No. 1 on Form 10-K/A for the year ended December 31, 2021, filed on March 17, 2022, and is incorporated herein by reference and included as Exhibit 99.2.

In accordance with applicable Securities and Exchange Commission ("SEC") rules and as required by Rule 12b-15 under the Securities Exchange Act of 1934, as amended, this Amendment includes new certifications from the Company's Principal Executive Officer and Principal Financial Officer dated as of the date of filing of this Amendment.

This Amendment consists solely of the preceding cover page, this explanatory note, Part IV., Item 15., "Exhibits and Financial Statement Schedules," in its entirety, the Exhibits, the signature page and the new certifications of the Company's Principal Executive Officer and Principal Financial Officer.

This Amendment does not reflect events occurring after the date of the Original Filing and does not amend or update in any way the disclosures made in the Original Filing, except as described above. In particular, the information included in this Amendment under Part II, Item 8 is identical in all respects to the information included under such caption in the Original Filing. This Amendment should be read in conjunction with the Original Filing and with the Company's subsequent filings with the SEC.

PART IV

ITEM 15. EXHIBITS AND FINANCIAL STATEMENT SCHEDULES

(a) The following documents are filed as part of this Annual Report on Form 10-K/A:

1. Financial Statements:

The following financial statements, supplementary data and reports of independent public accountants appear in Part II, Item 8 of the Original Filing and are incorporated herein by reference.

Consolidated Balance Sheets as of December 31, 2022 and 2021
Consolidated Statements of Income for each of the three years in the period ended December 31, 2022
Consolidated Statements of Comprehensive Income for each of the three years in the period ended December 31, 2022
Consolidated Statements of Stockholders' Equity for each of the three years in the period ended December 31, 2022
Consolidated Statements of Cash Flows for each of the three years in the period ended December 31, 2022
Notes to the Consolidated Financial Statements
Reports of Independent Registered Public Accounting Firm (PCAOB ID 34), Deloitte & Touche LLP, San Jose, CA
Report of Independent Registered Public Accounting Firm (PCAOB ID 248)

2. Financial Statement Schedules:

All schedules have been omitted because of the absence of conditions under which they are required or because the required information, where material, is shown in the financial statements, financial notes or supplementary financial information.

(b) Exhibits required by Item 601 of Regulation S-K:

The information required by this Item is set forth on the exhibit index that follows the signature page of this report.

Exhibits

Exhibit Number	Description	Incorporated by Reference			Filed Herewith
		Form	Exhibit	Filing Date/Period End Date	
2.1	Agreement and Plan of Merger, dated as of May 23, 2022, by and among Innoviva, Inc., Innoviva Merger Sub, Inc. and Entasis Therapeutics	8-K	2.1	5/24/2022	
2.2	Agreement and Plan of Merger, dated as of July 10, 2022, by and among Innoviva, Inc., Innoviva Acquisition Sub, Inc. and La Jolla Pharmaceutical Company	8-K	2.1	7/11/2022	
3.1	Amended and Restated Certificate of Incorporation	S-1	3.3	7/26/2004	
3.2	Certificate of Amendment of Restated Certificate of Incorporation	10-Q	3.4	3/31/2007	
3.3	Certificate of Ownership and Merger Merging LABA Merger Sub, Inc. with and into Theravance, Inc., as filed with the Secretary of State of the State of Delaware, effective on January 7, 2016	8-K	3.1	1/8/2016	
3.4	Amended and Restated Bylaws, amended and restated as of February 8, 2017	8-K	3.1	2/9/2017	
4.1	Specimen certificate representing the common stock of the registrant	10-K	4.1	12/31/2006	
4.2	Indenture, dated as of January 24, 2013 by and between Theravance, Inc. and The Bank of New York Mellon Trust Company, N.A., as trustee	8-K	4.1	1/25/2013	
4.3	Form of 2.125% Convertible Subordinated Note Due 2023 (included in Exhibit 4.4)				
4.4	Indenture (including form of Note) with respect to Innoviva's 2.50% Convertible Senior Notes due 2025, dated as of August 7, 2017, between Innoviva and The Bank of New York Mellon Trust Company, N.A., as trustee	8-K	4.1	8/7/2017	
4.5	Description of Registrant's Securities Registered Pursuant to Section 12 of the Securities Exchange Act of 1934	10-K	4.9	2/19/2020	
4.6	Indenture (including form of Note) with respect to Innoviva's 2.125% Convertible Senior Notes due 2028, dated as of March 7, 2022, between Innoviva, Inc. and The Bank of New York Mellon Trust Company, N.A., as trustee	8-K	4.1	3/8/2022	
10.1	Employee Stock Purchase Plan, as amended April 27, 2010	10-Q	10.4	6/30/2010	
10.2	Collaboration Agreement between the registrant and Glaxo Group Limited, dated as of November 14, 2002	10-Q	10.1	6/30/2014	
10.3	Amended and Restated Investors' Rights Agreement by and among the registrant and the parties listed therein, dated as of May 11, 2004	S-1	10.13	6/10/2004	
10.4*	Strategic Alliance Agreement between the registrant and Glaxo Group Limited, dated as of March 30, 2004	10-K	10.13	12/31/2013	
10.5+	Description of Cash Bonus Program, as amended	10-K	10.22	12/31/2009	
10.6+	Amendment to Change in Control Severance Plan effective December 16, 2009	10-K	10.47	12/31/2009	
10.7+	2009 Change in Control Severance Plan adopted December 16, 2009	10-K	10.48	12/31/2009	
10.8	Second Amendment to Amended and Restated Governance Agreement among the registrant, Glaxo Group Limited, GlaxoSmithKline plc and GlaxoSmithKline LLC, dated as of November 29, 2010	8-K	10.2	11/29/2010	
10.9	Amendment to Strategic Alliance Agreement, dated October 3, 2011	10-K	10.34	12/31/2011	
10.10+	2012 Equity Incentive Plan, as approved by the board of directors February 8, 2012 and approved by stockholders May 16, 2012 and forms of equity award	10-Q	10.38	6/30/2012	
10.11	Base Capped Call Transaction, dated January 17, 2013	8-K	10.1	1/23/2013	
10.12	Additional Capped Call Transaction, dated January 18, 2013	8-K	10.2	1/23/2013	
10.13	Master Agreement by and among Theravance, Inc., Theravance Biopharma, Inc. and Glaxo Group Limited, dated March 3, 2014	8-K/A	10.1	3/6/2014	
10.14*	Collaboration Agreement Amendment by and between Theravance, Inc. and Glaxo Group Limited, dated March 3, 2014	8-K/A	10.2	3/6/2014	
10.15*	Strategic Alliance Agreement Amendment by and between Theravance, Inc. and Glaxo Group Limited, dated March 3, 2014	8-K/A	10.3	3/6/2014	

10.16	Transition Services Agreement between Theravance and Theravance Biopharma, dated June 2, 2014	8-K	10.2	6/5/2014	
10.17	Tax Matters Agreement between Theravance and Theravance Biopharma, dated June 2, 2014	8-K	10.3	6/5/2014	
10.18	Employee Matters Agreement between Theravance and Theravance Biopharma, dated June 1, 2014	8-K	10.4	6/5/2014	
10.19	Theravance Respiratory Company, LLC Limited Liability Company Agreement between Theravance and Theravance Biopharma, dated May 31, 2014	8-K	10.5	6/5/2014	
10.20	Amendment/Clarification to Transition Services Agreement between Theravance and Theravance Biopharma, dated March 2, 2015	10-Q	10.64	3/31/2015	
10.21+	First Amendment to 2009 Change In Control Severance Plan (Renamed 2009 Severance Plan)	8-K	10.2	7/29/2015	
10.22	Form of Notice of Performance-Based Restricted Stock Award and Restricted Stock Award Agreement under 2012 Equity Incentive Plan (director form)	10-K	10.76	2/23/2018	
10.23+	Second Amendment to 2009 Severance Plan	10-Q	10.81	7/26/2018	
10.24+	Offer Letter with Marianne Zhen, dated September 7, 2018	8-K	10.1	9/11/2018	
10.25+	Offer Letter between Innoviva, Inc. and Pavel Raifeld, dated May 20, 2020	8-K	10.1	5/26/2020	
10.26+	Offer Letter between Innoviva, Inc. and Pavel Raifeld, dated April 29, 2022	8-K	10.1	5/2/2022	
10.27	Strategic Advisory Agreement, dated as of December 11, 2020, by and between Sarissa Capital Management LP and Innoviva, Inc.	8-K	10.1	12/14/2020	
10.28	Amended and Restated Limited Partnership Agreement of ISP Fund LP, dated as of December 11, 2020, by and among ISP Fund LP, Sarissa Capital Fund GP LP, Innoviva Strategic Partners LLC and the other parties named therein	8-K	10.2	12/14/2020	
10.29	Share Repurchase Agreement, dated as of May 2021, by and between Innoviva, Inc. and Glaxo Group Limited	8-K	10.1	5/20/2021	
10.30	Letter Agreement, dated as of May 20, 2021, by and among Innoviva Strategic Partners LLC, ISP Fund LP and Sarissa Capital Fung GP LP	8-K	10.2	5/20/2021	
10.31	Capped Call Confirmation dated March 2, 2022, by and among Innoviva, Inc., Bank of America, N.A., Goldman Sachs & Co. LLC and Deutsche Bank AG, London Branch	8-K	10.1	3/8/2022	
10.32	Amendment No. 1 to the Investor Rights Agreement, dated May 23, 2022, by and among Innoviva, Inc. and Entasis Therapeutics Holdings Inc.	8-K	10.1	5/24/2022	
10.33	Support Agreement, dated July 10, 2022, by and among Innoviva, Inc., Innoviva Acquisition Sub, Inc., Tang Capital Partners, LP and Kevin C. Tang Foundation	8-K	10.1	7/11/2022	
10.34	Equity Purchase Agreement, dated July 13, 2022, by and among Innoviva, Inc., Innoviva TRC Holdings LLC and Royalty Pharma Investments 2019 ICAV	8-K	10.1	7/13/2022	
10.35	Third Amendment to Collaboration Agreement, dated July 13, 2022, by and among Innoviva, Inc., Glaxo Group Limited, and Theravance Respiratory Company, LLC.	8-K	10.2	7/13/2022	
21.1	List of Subsidiaries				X**
23.1	Consent of Deloitte & Touche LLP, Independent Registered Public Accounting Firm				X**
23.2	Consent of Grant Thornton LLC, Independent Registered Public Accounting Firm				X**
23.3	Consent of Ernst & Young LLP, Independent Registered Public Accounting Firm				X
24.1	Power of Attorney (see signature page to this Annual Report on Form 10-K)				X**
31.1	Certification of Principal Executive Officer Pursuant to Rule 13a-14 under the Securities Exchange Act of 1934				X
31.2	Certification of Principal Financial Officer Pursuant to Rule 13a-14 under the Securities Exchange Act of 1934				X

32#	Certifications Pursuant to 18 U.S.C. Section 1350				
99.1	Audited Consolidated Financial Statements of Armata Pharmaceuticals, Inc. at December 31, 2022 and 2021 and for the two years ended December 31, 2022				X
99.2	Amendment No. 1 on Form 10-K/A for Innoviva, Inc. for the year ended December 31, 2021, filed on March 17, 2022	10-K/A	99.1	3/17/2022	
101.INS	Inline XBRL Instance Document - the instance document does not appear in the Interactive Data File because its XBRL tags are embedded within the Inline XBRL document.				X**
101.SCH	Inline XBRL Taxonomy Extension Schema Document				X**
101.CAL	Inline XBRL Taxonomy Extension Calculation Linkbase Document				X**
101.DEF	Inline XBRL Taxonomy Extension Definition Linkbase Document				X**
101.LAB	Inline XBRL Taxonomy Extension Label Linkbase Document				X**
101.PRE	Inline XBRL Taxonomy Extension Presentation Linkbase Document				X**
104	Cover Page Interactive Data File (embedded within the Inline XBRL document)				X**

+ Management contract or compensatory plan or arrangement required to be filed pursuant to Item 15(b) of Form 10-K.

* Confidential treatment has been granted for certain portions which are omitted in the copy of the exhibit electronically filed with the Securities and Exchange Commission. The omitted information has been filed separately with the Securities and Exchange Commission pursuant to Innoviva, Inc.'s application for confidential treatment.

** Previously filed with the Original Filing on February 28, 2023.

Furnished herewith.

SIGNATURES

Pursuant to the requirements of Section 13 or 15(d) of the Securities Exchange Act of 1934, the Registrant has duly caused this report to be signed on its behalf by the undersigned, thereunto duly authorized.

INNOVIVA, INC.

Date: March 20, 2023

By: /s/ PAVEL RAIFELD

Pavel Raifeld

Chief Executive Officer

Exhibit 23.3

Consent of Independent Registered Public Accounting Firm

We consent to the use of our report dated March 16, 2023, with respect to the consolidated financial statements of Armata Pharmaceuticals, Inc., included in the Annual Report (Form 10-K/A) of Innoviva, Inc. for the year ended December 31, 2022 and to the use of our report dated March 17, 2022, with respect to the consolidated financial statements of Armata Pharmaceuticals, Inc., incorporated by reference in the Annual Report (Form 10-K/A) of Innoviva, Inc. for the year ended December 31, 2022 filed with the Securities and Exchange Commission.

/s/ Ernst & Young LLP

San Diego, California
March 20, 2023

Exhibit 31.1

Certification of Principal Executive Officer
Pursuant to Section 302 of the Sarbanes-Oxley Act of 2002

I, Pavel Raifeld, certify that:

1. I have reviewed this Amendment No. 1 to the annual report on Form 10-K/A of Innoviva, Inc.;

2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;

3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;

4. The registrant's other certifying officer(s) and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15(d)-15(f)) for the registrant and have:

   a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;

   b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;

   c) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and

   d) Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and

5. The registrant's other certifying officer(s) and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):

   a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and

   b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Date: March 20, 2023

/s/ PAVEL RAIFELD
Pavel Raifeld
Chief Executive Officer
(Principal Executive Officer)

Exhibit 31.2

Certification of Principal Accounting Officer
Pursuant to Section 302 of the Sarbanes-Oxley Act of 2002

I, Marianne Zhen, certify that:

1. I have reviewed this Amendment No. 1 to the annual report on Form 10-K/A of Innoviva, Inc.;

2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;

3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;

4. The registrant's other certifying officer(s) and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15(d)-15(f)) for the registrant and have:

   a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;

   b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;

   c) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and

   d) Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and

5. The registrant's other certifying officer(s) and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):

   a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and

   b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Date: March 20, 2023

/s/ MARIANNE ZHEN
Marianne Zhen
Chief Accounting Officer
(Principal Financial Officer)

Exhibit 32

CERTIFICATIONS OF PRINCIPAL EXECUTIVE OFFICER
AND PRINCIPAL ACCOUNTING OFFICER
PURSUANT TO
18 U.S.C. SECTION 1350,
AS ADOPTED PURSUANT TO
SECTION 906 OF THE SARBANES-OXLEY ACT OF 2002

I, Pavel Raifeld, certify, pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, that the Amendment No. 1 to the annual report of Innoviva, Inc. on Form 10-K/A for the fiscal year ended December 31, 2022 fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934, as amended and that information contained in such Annual Report on Form 10-K fairly presents in all material respects the financial condition of Innoviva, Inc. at the end of the periods covered by such Annual Report on Form 10-K and results of operations of Innoviva, Inc. for the periods covered by such Annual Report on Form 10-K.

Date: March 20, 2023

By: /s/ PAVEL RAIFELD
Pavel Raifeld
Chief Executive Officer
(Principal Executive Officer)

I, Marianne Zhen, certify, pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, that the Amendment No. 1 to the annual report of Innoviva, Inc. on Form 10-K/A for the fiscal year ended December 31, 2022 fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934, as amended and that information contained in such Annual Report on Form 10-K fairly presents in all material respects the financial condition of Innoviva, Inc. at the end of the periods covered by such Annual Report on Form 10-K and results of operations of Innoviva, Inc. for the periods covered by such Annual Report on Form 10-K.

Date: March 20, 2023

By: /s/ MARIANNE ZHEN
Marianne Zhen
Chief Accounting Officer
(Principal Financial Officer)

A signed original of this written statement required by Section 906 has been provided to Innoviva, Inc. and will be retained by it and furnished to the Securities and Exchange Commission or its staff upon request.

Exhibit 99.1

ARMATA PHARMACEUTICALS, INC.

INDEX TO AUDITED CONSOLIDATED FINANCIAL STATEMENTS

Armata Pharmaceuticals, Inc.

Report of Independent Registered Public Accounting Firm

The Board of Directors and Stockholders of Armata Pharmaceuticals, Inc.

Opinion on the Financial Statements

We have audited the accompanying consolidated balance sheets of Armata Pharmaceuticals, Inc. (the Company) as of December 31, 2022 and 2021, and the related consolidated statements of operations, stockholders' equity, and cash flows for the years then ended, and the related notes (collectively referred to as the "consolidated financial statements"). In our opinion, the consolidated financial statements present fairly, in all material respects, the financial position of the Company at December 31, 2022 and 2021, and the results of its operations and its cash flows for the years then ended, in conformity with U.S. generally accepted accounting principles.

The Company's Ability to Continue as a Going Concern

The accompanying consolidated financial statements have been prepared assuming that the Company will continue as a going concern. As discussed in Note 2 to the financial statements, the Company has suffered recurring losses and negative cash flows from operations and has stated that substantial doubt exists about the Company's ability to continue as a going concern. Management's evaluation of the events and conditions and management's plans regarding these matters are also described in Note 2. The consolidated financial statements do not include any adjustments that might result from the outcome of this uncertainty.

Basis for Opinion

These financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on the Company's financial statements based on our audits. We are a public accounting firm registered with the Public Company Accounting Oversight Board (United States) (PCAOB) and are required to be independent with respect to the Company in accordance with the U.S. federal securities laws and the applicable rules and regulations of the Securities and Exchange Commission and the PCAOB.

We conducted our audits in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement, whether due to error or fraud. The Company is not required to have, nor were we engaged to perform, an audit of its internal control over financial reporting. As part of our audits we are required to obtain an understanding of internal control over financial reporting but not for the purpose of expressing an opinion on the effectiveness of the Company's internal control over financial reporting. Accordingly, we express no such opinion.

Our audits included performing procedures to assess the risks of material misstatement of the financial statements, whether due to error or fraud, and performing procedures that respond to those risks. Such procedures included examining, on a test basis, evidence regarding the amounts and disclosures in the financial statements. Our audits also included evaluating the accounting principles used and significant estimates made by management, as well as evaluating the overall presentation of the financial statements. We believe that our audits provide a reasonable basis for our opinion.

Critical Audit Matter

The critical audit matter communicated below is a matter arising from the current period audit of the financial statements that was communicated or required to be communicated to the audit committee and that: (1) relates to accounts or disclosures that are material to the financial statements and (2) involved our especially challenging, subjective or complex judgments. The communication of the critical audit matter does not alter in any way our opinion on the consolidated financial statements, taken as a whole, and we are not, by communicating the critical audit matter below, providing a separate opinion on the critical audit matter or on the accounts or disclosures to which it relates.

	Accrued clinical trial expenses and related research and development costs
Description of the Matter	During 2022, the Company incurred $35.0 million for research and development costs and as of December 31, 2022, the Company recorded $2.7 million for accrued clinical trial expenses. As described in Note 3 of the consolidated financial statements, the Company records accruals for estimated ongoing research and development costs, comprising payments for work performed by third party contractors, laboratories, participating clinical trial sites, and others. The Company accrues for the estimated ongoing clinical trial site costs based on patient enrollment and progress of the trial. Auditing management's accounting for accrued clinical trial expenses and related research and development costs is especially challenging as evaluating the progress or stage of completion of the activities under the Company's research and development agreements is dependent upon a high volume of data from third-party service providers and internal clinical personnel, which is tracked in spreadsheets and other end user computing programs.
How We Addressed the Matter in Our Audit	To test the completeness of the Company's accrued clinical trial expenses and related research and development costs, we obtained supporting evidence of the research and development activities performed for significant clinical trials. To assess the appropriate measurement of accrued clinical trial expenses and related research and development costs, our audit procedures included, among others, obtaining and inspecting significant agreements and agreement amendments, evaluating the Company's documentation of trial timelines and future projections of trial progress, confirming amounts incurred to-date with third-party service providers, and testing a sample of transactions and comparing the costs against related invoices and contracts. We also tested a sample of subsequent payments to evaluate the completeness of the accrued expenses and compared the results to the current year accrual.

/s/ Ernst & Young LLP

We have served as the Company’s auditor since 2019.

San Diego, California

March 16, 2023

Armata Pharmaceuticals, Inc.
Consolidated Balance Sheets

	December 31, 2022	December 31, 2021
Assets		
Current assets		
Cash and cash equivalents	$ 14,852,000	$ 10,288,000
Awards receivable	1,936,000	2,989,000
Prepaid expenses and other current assets	10,259,000	1,718,000
Total current assets	27,047,000	14,995,000
Restricted cash	5,960,000	1,200,000
Property and equipment, net	3,617,000	2,220,000
Operating lease right-of-use asset	43,035,000	35,852,000
In-process research and development	10,256,000	10,256,000
Goodwill	3,490,000	3,490,000
Other assets	2,429,000	1,755,000
Total assets	$ 95,834,000	$ 69,768,000
Liabilities and stockholders' equity		
Current liabilities		
Accounts payable and accrued liabilities	$ 6,034,000	$ 2,270,000
Accrued compensation	1,828,000	1,035,000
Current portion of operating lease liabilities	17,011,000	1,509,000
Total current liabilities	24,873,000	4,814,000
Operating lease liabilities, net of current portion	31,804,000	36,480,000
Deferred tax liability	3,077,000	3,077,000
Total liabilities	59,754,000	44,371,000
Stockholders' equity		
Common stock, $0.01 par value; 217,000,000 shares authorized; 36,144,706 and 27,112,299 shares issued and outstanding at December 31, 2022 and December 31, 2021, respectively	361,000	271,000
Additional paid-in capital	275,493,000	227,983,000
Accumulated deficit	(239,774,000)	(202,857,000)
Total stockholders' equity	36,080,000	25,397,000
Total liabilities and stockholders' equity	$ 95,834,000	$ 69,768,000

The accompanying notes are an integral part of these consolidated financial statements.

Armata Pharmaceuticals, Inc.
Consolidated Statements of Operations

	Year Ended December 31,	
	2022	**2021**
Grant revenue	$ 5,508,000	$ 4,474,000
Operating expenses		
Research and development	35,017,000	20,015,000
General and administrative	7,437,000	8,281,000
Total operating expenses	42,454,000	28,296,000
Loss from operations	(36,946,000)	(23,822,000)
Other income (expense)		
Gain upon extinguishment of Paycheck Protection Program loan	—	726,000
Interest income	29,000	5,000
Interest expense	—	(64,000)
Total other income (expense), net	29,000	667,000
Net loss	$ (36,917,000)	$ (23,155,000)
Per share information:		
Net loss per share, basic and diluted	$ (1.08)	$ (0.96)
Weighted average shares outstanding, basic and diluted	34,294,124	24,104,146

The accompanying notes are an integral part of these consolidated financial statements.

Armata Pharmaceuticals, Inc.
Consolidated Statements of Stockholders' Equity

	Stockholders' Equity				
	Common Stock				
	Shares	Amount	Additional Paid-in Capital	Accumulated Deficit	Total Stockholders' Equity
Balances, December 31, 2020	18,688,461	$ 187,000	$ 198,372,000	$ (179,702,000)	$ 18,857,000
Sale of common stock, net of issuance costs	8,275,060	83,000	26,223,000	—	26,306,000
Exercises of warrants	52,000	1,000	290,000	—	291,000
Return of restricted stock awards for tax withholdings	(25,424)	—	(106,000)	—	(106,000)
Forfeiture of restricted stock awards	(1,047)	—	—	—	—
Exercise of stock options	99,517	—	322,000	—	322,000
Issuance of inducement stock awards	23,732	—	—	—	—
Stock-based compensation	—	—	2,882,000	—	2,882,000
Net loss	—	—	—	(23,155,000)	(23,155,000)
Balances, December 31, 2021	27,112,299	$ 271,000	$ 227,983,000	$ (202,857,000)	$ 25,397,000
Sale of common stock, net of issuance costs	9,000,000	90,000	44,301,000	—	44,391,000
Return of restricted stock awards for tax withholdings	(5,511)	—	(21,000)	—	(21,000)
Forfeiture of restricted stock awards	(369)	—	—	—	—
Exercise of stock options	38,287	—	125,000	—	125,000
Stock-based compensation	—	—	3,105,000	—	3,105,000
Net loss	—	—	—	(36,917,000)	(36,917,000)
Balances, December 31, 2022	36,144,706	$ 361,000	$ 275,493,000	$ (239,774,000)	$ 36,080,000

The accompanying notes are an integral part of these consolidated financial statements.

Armata Pharmaceuticals, Inc.
Consolidated Statements of Cash Flows

	Year Ended December 31,	
	2022	**2021**
Operating activities:		
Net loss	$ (36,917,000)	$ (23,155,000)
Adjustments required to reconcile net loss to net cash used in operating activities:		
Depreciation	892,000	1,169,000
Gain upon extinguishment of Paycheck Protection Program loan	—	(722,000)
Stock-based compensation	3,105,000	2,882,000
Non-cash interest expense	—	60,000
Payment of accreted interest for deferred consideration for asset acquisition	—	(586,000)
Changes in operating assets and liabilities:		
Awards receivable	1,053,000	(2,428,000)
Accounts payable and accrued liabilities	3,665,000	184,000
Accrued compensation	793,000	472,000
Operating lease right-of-use asset and liability, net	3,643,000	499,000
Prepaid expenses and other current assets	(8,715,000)	(1,950,000)
Net cash used in operating activities	(32,481,000)	(23,575,000)
Investing activities:		
Purchases of property and equipment	(2,211,000)	(1,304,000)
Net cash used in investing activities	(2,211,000)	(1,304,000)
Financing activities:		
Principal payment of deferred consideration for asset acquisition	—	(1,414,000)
Payment of deferred offering costs	(500,000)	—
Proceeds from sale of common stock, net of offering costs	44,391,000	26,319,000
Proceeds from exercise of warrants and stock options	125,000	613,000
Net cash provided by financing activities	44,016,000	25,518,000
Net increase in cash, cash equivalents and restricted cash	9,324,000	639,000
Cash, cash equivalents and restricted cash, beginning of period	11,488,000	10,849,000
Cash, cash equivalents and restricted cash, end of period	$ 20,812,000	$ 11,488,000
Supplemental disclosure of cash flow information:		
ROU asset obtained by assuming operating lease liabilities	$ 8,669,000	$ 26,056,000
Paycheck Protection Program loan forgiveness	$ —	$ 722,000
Unpaid offering costs	$ —	$ 13,000
Property and equipment included in accounts payable	$ 78,000	$ 38,000

	Year Ended December 31,	
	2022	**2021**
Cash and cash equivalents	$ 14,852,000	$ 10,288,000
Restricted cash	5,960,000	1,200,000
Cash, cash equivalents and restricted cash	$ 20,812,000	$ 11,488,000

The accompanying notes are an integral part of these consolidated financial statements.

1. Organization and Description of the Business

Armata Pharmaceuticals, Inc. ("Armata", and together with its subsidiaries, is referred to herein as, the "Company") is a clinical-stage biotechnology company focused on the development of precisely targeted bacteriophage therapeutics for the treatment of antibiotic-resistant and difficult-to-treat bacterial infections using its proprietary bacteriophage-based technology. On May 9, 2019, the Company's predecessor, C3J Therapeutics, Inc. ("C3J") completed a reverse merger with AmpliPhi Biosciences Corporation, a bacteriophage development stage company ("AmpliPhi"), where Ceres Merger Sub, Inc., a wholly-owned subsidiary of AmpliPhi, merged with and into C3J (the "Merger"). Immediately prior to the Merger, AmpliPhi changed its name to Armata Pharmaceuticals, Inc. Armata's common stock is traded on the NYSE American exchange under the ticker symbol "ARMP".

2. Liquidity

The Company has prepared its consolidated financial statements on a going concern basis, which assumes that the Company will realize its assets and satisfy its liabilities in the normal course of business. However, the Company has incurred net losses since its inception and has negative operating cash flows. These circumstances raise substantial doubt about the Company's ability to continue as a going concern. The accompanying financial statements do not include any adjustments to reflect the possible future effects on the recoverability and classification of assets or the amounts and classifications of liabilities that may result from the outcome of the uncertainty concerning the Company's ability to continue as a going concern.

On January 10, 2023, the Company entered into, as borrower, a secured convertible credit and security agreement (the "Credit Agreement") with Innoviva Strategic Opportunities LLC, a wholly-owned subsidiary of Innoviva, Inc. (Nasdaq: INVA) (collectively, "Innoviva"), a principal stockholder of the Company. The Credit Agreement provides for a secured term loan facility in an aggregate amount of $30 million (the "Loan") at an interest rate of 8.0% per annum, and has a maturity date of January 10, 2024. Repayment of the Loan is required to be guaranteed by the Company's domestic subsidiaries and foreign material subsidiaries, and the Loan is secured by substantially all of the assets of the Company and the subsidiary guarantors.

The Credit Agreement provides that if a Qualified Financing (as defined in the Credit Agreement) occurs, the outstanding principal amount of, and all accrued and unpaid interest on, the Loan shall be converted into shares of the Company's common stock, par value $0.01 per share ("Common Stock") at a price per share equal to a 15.0% discount to the lowest price per share for Common Stock paid by investors in a Qualified Financing (which price paid by investors in a Qualified Financing may not be less than a15.0% discount to the closing price of Common Stock immediately prior to the consummation of a Qualified Financing event). The Credit Agreement also requires the Company to file a registration statement (the "Registration Statement") for the resale of all securities issued to the lender in connection with any conversion under the Credit Agreement. After the Registration Statement has been declared effective by the U.S. Securities and Exchange Commission, any outstanding Loan amount, including all accrued and unpaid interest thereon, may be converted at the lender's option, into shares of Common Stock at a price per share equal to the greater of book value or market value per share of Common Stock on the date immediately preceding the effective date of the Credit Agreement, which is $1.52 (as may be appropriately adjusted for any stock split, combination or similar act).

On February 9, 2022, the Company entered into a securities purchase agreement ("February 2022 Securities Purchase Agreement") to sell its common stock and warrants to Innoviva. The gross proceeds to the Company from the transaction were $45 million.

Pursuant and subject to the terms and conditions of the securities purchase agreement and related agreements, Innoviva agreed to purchase 9,000,000 newly issued shares of our common stock, at a price of $5.00 per share, and warrants to purchase up to 4,500,000 additional shares of our common stock, with an exercise price of $5.00 per share. The stock purchases were completed in two tranches. On February 9, 2022, Innoviva purchased 3,614,792 shares of common stock and warrants to purchase 1,807,396 shares of common stock for an aggregate purchase price of approximately $18.1 million. On March 31, 2022, upon our stockholders voting in favor of the transaction, Innoviva purchased approximately 5,385,208 shares of common stock and warrants to purchase approximately 2,692,604 shares of common stock for an aggregate purchase price of $26.9 million.

On October 28, 2021, the Company entered into a securities purchase agreement (the "October 2021 Securities Purchase Agreement") with the Cystic Fibrosis Foundation ("CFF"), a Delaware corporation, the Company's partner for its lead Phase 1b/2a clinical development program, and Innoviva Strategic Opportunities LLC, a wholly-owned subsidiary of Innoviva, Inc. (Nasdaq: INVA) (collectively, "Innoviva") for the private placement of newly issued shares of common stock, par value $0.01 per share, of the Company ("Common Stock"). Pursuant to the October 2021 Securities Purchase Agreement, the Company issued and sold 909,091 shares to CFF and 1,212,122 shares to Innoviva, each at a per share price of $3.30 (the "October 2021 Private Placements"). The Company received aggregate gross proceeds from the October 2021 Private Placements of approximately $7.0 million, before deducting transaction expenses.

On January 26, 2021, the Company entered into a securities purchase agreement (the "January 2021 Securities Purchase Agreement") with Innoviva, pursuant to which the Company issued and sold to Innoviva, in a private placement, up to 6,153,847 newly issued shares of Common Stock, and warrants (the "Common Warrants") to purchase up to 6,153,847 shares of Common Stock, with an exercise price per share of $3.25 (the "January 2021 Private Placement").

Management plans to raise additional capital through equity offerings, debt financings, or other capital sources, including potential collaborations, licenses and other similar arrangements. While management believes this plan to raise additional funds will alleviate the conditions that raise substantial doubt, these plans are not entirely within its control and cannot be assessed as being probable of occurring. The Company's ability to raise additional capital may be adversely impacted by potential worsening global economic conditions and the recent disruptions to, and volatility in, financial markets in the United States and worldwide. The Company may not be able to secure additional financing in a timely manner or on favorable terms, if at all. Furthermore, if the Company issues equity securities to raise additional funds, its existing stockholders may experience dilution, and the new equity securities may have rights, preferences and privileges senior to those of the Company's existing stockholders. If the Company raises additional funds through collaboration, licensing or other similar arrangements, it may be necessary to relinquish valuable rights to its potential products on terms that are not favorable to the Company. If the Company is unable to raise capital when needed or on attractive terms, it would be forced to delay, reduce or eliminate its research and development programs or other operations. If any of these events occur, the Company's ability to achieve the development and commercialization goals would be adversely affected.

3. Significant Accounting Policies

Basis of Presentation

The consolidated financial statements include the accounts of the Company and its wholly owned subsidiaries including C3J, Biocontrol Limited and AmpliPhi Australia Pty Ltd. All significant intercompany accounts and transactions have been eliminated.

Use of Estimates

The preparation of consolidated financial statements in conformity with accounting principles generally accepted in the United States ("U.S. GAAP") requires management to make estimates and assumptions that affect the amounts reported in its consolidated financial statements and accompanying notes. On an ongoing basis, management evaluates these estimates and judgments, which are based on historical and anticipated results and trends and on various other assumptions that management believes to be reasonable under the circumstances. By their nature, estimates are subject to an inherent degree of uncertainty and, as such, actual results may differ from management's estimates.

Cash and Cash Equivalents

Cash and cash equivalents consist primarily of deposits with commercial banks and financial institutions.

Fair Value of Financial Instruments

Financial instruments include cash equivalents, prepaid expenses and other assets, restricted cash, accounts payable, accrued expenses and deferred asset acquisition consideration. The carrying amount of cash equivalents prepaid expenses and other assets, restricted cash, accounts payable and accrued expenses are generally considered to be representative of their respective fair values because of the short-term nature of those instruments.

Property and Equipment

Property and equipment are recorded at cost and depreciated over their estimated useful lives using the straight-line method. Maintenance and repairs that do not improve or extend the lives of the respective assets are expensed to operations as incurred. Upon disposal, retirement, or sale of an asset, the related cost and accumulated depreciation is removed from the accounts and any resulting gain or loss is included in the results of operations. Estimated useful lives for property and equipment are as follows:

	Estimated Useful Lives
Laboratory equipment	5 – 10 years
Office and computer equipment	3 – 5 years
Leasehold improvements	Shorter of lease term or useful life

Fair Value Measurements

Fair value measurements are market-based measurements, not entity-specific measurements. Therefore, fair value measurements are determined based on the assumptions that market participants would use in pricing the asset or liability. The Company follows a three-level hierarchy to prioritize the inputs used in the valuation techniques to derive fair values. The basis for fair value measurements for each level within the hierarchy is described below:

- Level 1—Valuations based on unadjusted quoted prices in active markets for identical assets or liabilities that the Company has the ability to access.
- Level 2—Valuations based on quoted prices for similar assets or liabilities in active markets, quoted prices for identical or similar assets or liabilities in markets that are not active and models for which all significant inputs are observable, either directly or indirectly.
- Level 3—Valuations based on inputs that are unobservable and significant to the overall fair value measurement.

The Company did not have any assets or liabilities that require recurring or nonrecurring measurements.

Impairment of Long-Lived Assets

The Company reviews long-lived assets for impairment when events or changes in circumstances indicate the carrying value of the assets may not be recoverable. Recoverability is measured by comparison of the book values of the assets to future net undiscounted cash flows that the assets or the asset groups are expected to generate. If such assets are considered to be impaired, the impairment to be recognized is measured by the amount by which the book value of the assets exceed their fair value, which is measured based on the estimated discounted future net cash flows arising from the assets or asset groups. No impairment losses on long-lived assets have been recorded through December 31, 2022 or 2021.

In-Process Research and Development ("IPR&D") and Acquired IPR&D

IPR&D assets are intangible assets with indefinite lives and are not subject to amortization. The Company's IPR&D assets represent capitalized in-process bacteriophage development programs for S. aureus infections that the Company acquired through a business combination. Such assets are initially measured at their acquisition-date fair values and are subject to impairment testing at least annually until completion or abandonment of research and development efforts associated with the projects. Upon successful completion of each project, the Company makes a determination as to the then remaining useful life of the intangible asset and begins amortization.

The Company tests IPR&D assets for impairment as of December 31 of each year or more frequently if indicators of impairment are present. The authoritative accounting guidance provides an optional qualitative assessment for any indicators that indefinite-lived intangible assets are impaired. If it is determined that it is more likely than not that the indefinite-lived intangible assets, including IPR&D, are impaired, the fair value of the indefinite-lived intangible assets is compared with the carrying amount and impairment is recorded for any excess of the carrying amount over the fair value of the indefinite-lived intangible assets.

If and when a quantitative analysis of IPR&D assets is required based on the result of the optional qualitative assessment, the estimated fair value of IPR&D assets is calculated based on the income approach, which includes discounting expected future net cash flows associated with the assets to a net present value. The fair value measurements utilized to perform the impairment analysis are categorized within Level 3 of the fair value hierarchy. Significant management judgment is required in the forecast of future operating results that are used in the Company's impairment analysis. The estimates the Company uses are consistent with the plans and estimates that it uses to manage its business. Significant assumptions utilized in the Company's income approach model include the discount rate, timing of clinical studies and regulatory approvals, the probability of success of its research and development programs, timing of commercialization of these programs, forecasted sales, gross margin, selling, general and administrative expenses, capital expenditures, as well as anticipated growth rates.

During the fourth quarter ended December 31, 2022, the Company performed the annual evaluation of its IPR&D assets for impairment. The Company considered the development timelines for its S. aureus development program and noted no qualitative factors that would indicate potential impairment of its IPR&D asset. The Company also performed a quantitative analysis for impairment analysis and based on this analysis, the fair value of this bacteriophage program was greater than its carrying value as of December 31, 2022. Consequently, no impairment was noted for the IPR&D asset.

Goodwill

Goodwill, which has an indefinite useful life, represents the excess of purchase consideration over the fair value of net assets acquired in an acquisition. Goodwill is not subject to amortization and is required to be tested for impairment at least on an annual basis. The Company tests goodwill for impairment as of December 31 of each year. The Company determines whether goodwill may be impaired by comparing the carrying value of the single reporting unit, including goodwill, to the fair value of the reporting unit. If the fair value is less than the carrying amount, a more detailed analysis is performed to determine whether goodwill is impaired. The impairment loss, if any, is measured as the excess of the carrying value of the goodwill over the implied fair value of the goodwill and is recorded in the Company's consolidated statements of operations. There was no impairment of goodwill during the year ended December 31, 2022 or 2021.

Research and Development

All research and development costs are expensed as incurred. Research and development costs consist primarily of salaries, employee benefits, costs associated with preclinical studies and clinical trials (including amounts paid to clinical research organizations and other professional services). Payments made prior to the receipt of goods or services to be used in research and development are capitalized until the goods or services are received.

The Company records accruals for estimated research and development costs, comprising payments for work performed by third party contractors, laboratories, participating clinical trial sites, and others. Some of these contractors bill monthly based on actual services performed, while others bill periodically based upon achieving certain contractual milestones. For the latter, the Company accrues the expenses as goods or services are used or rendered. Clinical trial site costs related to patient enrollment are accrued as patients enter and progress through the trial. Judgments and estimates are made in determining the accrued balances at the end of the reporting period.

Research and development expenses are partially offset by the benefit of tax incentive payments for qualified research and development expenditures from the Australian tax authority ("AU Tax Rebates"). The Company does not record AU Tax Rebates until payment is received due to the uncertainty of receipt.

Stock-Based Compensation

Compensation expense related to stock options granted to employees and non-employees is measured at the grant date based on the estimated fair value of the award and is recognized on the accelerated attribution method over the requisite service period. Forfeitures are recognized as a reduction of stock-based compensation expense as they occur. Stock-based compensation expense for an award with a performance condition is recognized when the achievement of such performance condition is determined to be probable. If the outcome of such performance condition is not determined to be probable or is not met, no compensation expense is recognized and any previously recognized compensation expense is reversed.

Foreign Currency Translations and Transactions

The functional currency of the Company and its wholly owned subsidiaries is the U.S. dollar.

Revenue Recognition

The Company recognizes revenue when it transfers promised goods or services to customers in an amount that reflects the consideration to which it expects to be entitled in exchange for those goods or services. To determine revenue recognition for contracts with customers, the Company performs the following five steps: (i) identify the contract(s) with a customer; (ii) identify the performance obligations in the contract; (iii) determine the transaction price; (iv) allocate the transaction price to the performance obligations in the contract; and (v) recognize revenue when (or as) the Company satisfies its performance obligations. At contract inception, the Company assesses the goods or services agreed upon within each contract and assess whether each good or service is distinct and determine those that are performance obligations. The Company then recognizes as revenue the amount of the transaction price that is allocated to the respective performance obligation when (or as) the performance obligation is satisfied. During the years ended December 31, 2022 and 2021, the Company did not recognize revenue or deferred revenue from contracts with customers.

Grants and Awards

In applying the provisions of ASC Topic 606, *Revenue from Contracts with Customers* ("ASC 606"), Armata has determined that grants and awards are out of the scope of ASC 606 because the funding entities do not meet the definition of a "customer", as defined by ASC 606, as there is not considered to be a transfer of control of goods or services. With respect to each grant or award, the Company determines if it has a collaboration in accordance with ASC Topic 808, *Collaborative Arrangements* ("ASC 808"). To the extent the grant or award is within the scope of ASC 808, the Company recognizes the award upon achievement of certain milestones as credits to research and development expenses. For grant and awards outside the scope of ASC 808, the Company applies ASC 606 or International Accounting Standards No. 20, Accounting for Government Grants and Disclosure of Government Assistance, by analogy, and revenue is recognized when the Company incurs expenses related to the grants for the amount the Company is entitled to under the provisions of the contract.

Armata also considers the guidance in ASC Topic 730, *Research and Development* ("ASC 730"), which requires an assessment, at the inception of the grant or award, of whether the agreement is a liability. If Armata is obligated to repay funds received regardless of the outcome of the related research and development activities, then Armata is required to estimate and recognize that liability. Alternatively, if Armata is not required to repay the funds, then payments received are recorded as revenue or contra-expense as the expenses are incurred.

Deferred grant or award liability represents award funds received or receivable for which the allowable expenses have not yet been incurred as of the balance sheet date.

Leases

The Company determines if an arrangement contains a lease at inception. The Company currently only has operating leases. The Company recognizes a right-of-use operating lease asset and associated short- and long-term operating lease liability on its consolidated balance sheet for operating leases greater than one year. The right-of-use assets represent the Company's right to use an underlying asset for the lease term and the lease liabilities represent the Company's obligation to make lease payments arising from the lease arrangements. Right-of-use operating lease assets and lease liabilities are recognized based on the present value of the future minimum lease payments, including noncash lease payments, the Company will pay over the lease term. The Company determines the lease term at the inception of each lease, which includes renewal options only if the Company concludes that such options are reasonably certain to be exercised.

As the Company's leases do not provide an interest rate implicit in the lease, the Company uses its incremental borrowing rate, based on the information available on the date of adoption of Topic 842, Leases, as of the lease inception date or at the date of remeasurement in determining the present value of future payments. The Company recognizes rent expense for the minimum lease payments on a straight-line basis over the expected term of the leases. The Company recognizes period expenses, such as common area maintenance expenses, in the period such expenses are incurred.

Income Taxes

The Company utilizes the asset and liability method of accounting for income taxes. Deferred income taxes are recognized for the future tax consequences of temporary differences using enacted statutory tax rates expected to apply to taxable income in the years in which those temporary differences are expected to be recovered or settled. Temporary differences include the differences between the financial statement carrying amounts and the tax basis of existing assets and liabilities and net operating loss and tax credit carryforwards. The effect on deferred taxes of a change in tax rates is recognized in income (expense) in the period that includes the enactment date. The Company evaluates the likelihood that deferred tax assets will be recovered from future taxable income. Valuation allowances are provided if, based upon the weight of available evidence, it is more likely than not that some or all of the deferred tax assets will not be realized.

The Company's income tax returns are based on calculations and assumptions that are subject to examination by the Internal Revenue Service and other tax authorities. In addition, the calculation of tax liabilities involves dealing with uncertainties in the application of complex tax regulations. The Company recognizes liabilities for uncertain tax positions based on a two-step process. The first step is to evaluate the tax position for recognition by determining if the weight of available evidence indicates that it is more likely than not that the position will be sustained on audit, including resolution of related appeals or litigation processes, if any. The second step is to measure the tax benefit as the largest amount that is more than 50% likely of being realized upon settlement.

Basic and Diluted Net Loss per Share

Net earnings or loss per share ("EPS") is calculated in accordance with the applicable accounting guidance provided in ASC 260, Earnings per Share. Basic EPS is calculated by dividing net income or loss by the weighted-average number of common shares outstanding. Diluted net loss per share is computed in accordance with the treasury stock method and reflects the potential dilution that would occur if securities or other contracts to issue common stock were exercised or converted to common stock. The calculation of diluted loss per share requires that, to the extent the average market price of the underlying shares for the reporting period exceeds the exercise price of the warrants, and the presumed exercise of such securities are dilutive to net loss per share for the period, an adjustment to net loss available to common stockholders used in the calculation is required to remove the change in fair value of the warrants from the numerator for the period. Likewise, an adjustment to the denominator is required to reflect the related dilutive shares, if any, under the treasury stock method.

Recent Accounting Pronouncements Not Yet Adopted

In June 2016, the FASB issued ASU 2016-13, *Financial Instruments - Credit Losses (Topic 326), Measurement of Credit Losses on Financial Instruments*. The standard amends the impairment model by requiring entities to use a forward-looking approach based on expected losses to estimate credit losses for most financial assets and certain other instruments that aren't measured at fair value through net income. For available-for-sale debt securities, entities will be required to recognize an allowance for credit losses rather than a reduction in carrying value of the asset. Entities will no longer be permitted to consider the length of time that fair value has been less than amortized cost when evaluating when credit losses should be recognized. This new guidance is effective for calendar-year smaller reporting public entities in the first quarter of 2023. The Company is currently evaluating the impact of this ASU and does not expect that adoption of this standard will have a material impact on its consolidated financial statements or related disclosures.

In August 2020, the FASB issued ASU No. 2020-06, *Debt - Debt with Conversion and Other Options (Subtopic 470-20) and Derivatives and Hedging - Contracts in Entity's Own Equity (Subtopic 815-40)* ("ASU 2020-06"). ASU 2020-06 eliminates the beneficial conversion and cash conversion accounting models for convertible instruments. It also amends the accounting for certain contracts in an entity's own equity that are currently accounted for as derivatives because of specific settlement provisions. In addition, ASU 2020-06 modifies how particular convertible instruments and certain contracts that may be settled in cash or shares impact the diluted EPS computation. The amendments in ASU 2020-06 are effective for the Company as of January 1, 2024. Early adoption is permitted. The Company is currently evaluating the impact of ASU 2020-06 on its financial statements and does not expect the adoption of this ASU to have a material impact on the Company's consolidated financial statements.

4. Net Loss per Share

The following outstanding securities at December 31, 2022 and 2021 have been excluded from the computation of diluted weighted average shares outstanding for the years ended December 31, 2022 and 2021, as they would have been anti-dilutive:

	December 31, 2022	December 31, 2021
Options	3,352,803	2,409,682
Unvested restricted stock units	30,000	30,000
Restricted stock awards	99,666	124,018
Warrants	20,549,338	16,647,219
Total	24,031,807	19,210,919

5. Balance Sheet Details

Property and Equipment, net

Property and equipment consisted of the following:

	December 31, 2022	December 31, 2021
Laboratory equipment	$ 10,007,000	$ 7,754,000
Furniture and fixtures	817,000	817,000
Office and computer equipment	449,000	451,000
Leasehold improvements	3,447,000	3,423,000
Total	14,720,000	12,445,000
Less: accumulated depreciation	(11,103,000)	(10,225,000)
Property and equipment, net	$ 3,617,000	$ 2,220,000

Depreciation expense totaled $0.9 million and $1.2 million the years ended December 31, 2022 and 2021, respectively.

Accounts Payable and Accrued Liabilities

Accounts payable and accrued liabilities consisted of the following:

	December 31, 2022	December 31, 2021
Accounts payable	$ 1,678,000	$ 1,138,000
Accrued clinical trial expenses	2,650,000	529,000
Other accrued expenses	1,706,000	603,000
	$ 6,034,000	$ 2,270,000

6. Income Taxes

Loss before income taxes consisted of the following components:

	Year Ended December 31,	
	2022	2021
United States	$ (32,228,000)	$ (21,714,000)
Foreign	(4,689,000)	(1,441,000)
Total	$ (36,917,000)	$ (23,155,000)

The company has not recognized any current or deferred tax expense on its US and Foreign pre-tax losses for the years ended December 31, 2022 and 2021.

The differences between the Company's effective tax rate and the U.S. federal statutory tax rate were as follows:

	December 31,	
	2022	2021
U.S. federal statutory income tax rate	21.0%	21.0%
Adjustments for tax effects of:		
State income taxes, net of federal tax	7.3%	6.2%
Stock-based compensation	(0.2)%	(0.8)%
Change in valuation allowance	(28.6)%	(27.2)%
Other	0.5%	0.8%
Effective income tax rate	0.0 %	0.0 %

Significant components of the Company's deferred tax assets and liabilities were as follows:

	December 31,	
	2022	2021
Deferred tax assets:		
Net operating loss carryforwards	$ 42,525,000	$ 36,405,000
Capitalized research and development	19,103,000	16,306,000
Stock-based compensation	3,192,000	2,467,000
Depreciation and amortization	929,000	1,301,000
Lease accounting	13,660,000	10,631,000
Other	1,452,000	1,174,000
Total deferred tax assets before valuation allowance	80,861,000	68,284,000
Less: valuation allowance	(68,818,000)	(58,251,000)
Total deferred tax assets after valuation allowance	12,043,000	10,033,000
Deferred tax liabilities:		
Right-of-use asset	(12,043,000)	(10,033,000)
In-process research and development	(3,077,000)	(3,077,000)

Total deferred tax liabilities	(15,120,000)	(13,110,000)
Net deferred tax liability	$ (3,077,000)	$ (3,077,000)

The Company's net operating loss carryforwards at December 31, 2022 are $145 million and $116 million for federal and state income tax purposes, respectively. Federal and state net operating loss carryforwards are available to offset future taxable income, if any, and will begin to expire in 2026 to 2028, respectively. The federal net operating loss carryforwards generated in tax years 2018 and forward will carryforward indefinitely and be available to offset up to 80% of future taxable income each year, subject to certain modifications made by the Coronavirus Aid, Relief, and Economic Security Act (CARES Act) enacted in 2020.

The ability of the Company to utilize net operating loss carryforwards to reduce future domestic taxable income and domestic income tax is subject to various limitations under the Internal Revenue Code. The utilization of such carryforwards may be limited upon the occurrence of certain ownership changes during any three-year period resulting in an aggregate change of more than 50% in beneficial ownership. The Company previously determined an ownership change occurred on May 9, 2019 as a result of a business combination. The resulting limitation significantly reduced the Company's ability to utilize its net operating loss and credit carryovers before the expire. Accordingly, in 2019 the Company reduced its deferred tax assets for the net operating loss and credit carryforwards that were expected to expire unused with a corresponding offset to the valuation allowance recorded against such assets. Future ownership changes under Section 382 may also limit the Company's ability to fully utilize any remaining tax benefits.

The Company has generated federal and state income tax losses in all years since its inception. Accordingly, management has determined that significant negative evidence precludes the Company from recording a net deferred tax asset for financial statement purposes as it is more likely than not that its deferred tax assets will not be realized.

The Company files income tax returns in the U.S. federal jurisdiction, state of California and certain foreign jurisdictions. As of December 31, 2022, the Company is no longer subject to U.S. federal income tax examinations for tax years ended on or before December 31, 2018 or to California state income tax examinations for tax years ended on or before December 31, 2017. However, to the extent allowed by law, the tax authorities may have the right to examine prior periods where net operating losses or tax credits were generated and carried forward, and make adjustments up to the amount of the net operating loss or credit carryforward.

The Company did not have a liability for unrecognized tax benefits at December 31, 2022 and 2021.

The Company's policy is to classify interest and penalties on uncertain tax positions as a component of tax expense. As of December 31, 2022, the Company has no accrued interest or penalties related to uncertain tax positions.

7. Paycheck Protection Program Loan

In April 2020, the Company received loan proceeds of $717,000 ("PPP Loan") under the Paycheck Protection Program ("PPP"). The PPP, established as part of the Coronavirus Aid, Relief and Economic Security Act, provides for loans to qualifying businesses for amounts up to 2.5 times the average monthly payroll expenses of the qualifying business, calculated as provided under the PPP. The PPP Loan was unsecured, evidenced by a promissory note (the "Note") given by the Company as borrower through its bank, serving as the lender. The interest rate on the Note was 1.0% per annum.

In July 2021, the Company received notification of forgiveness of the full loan amount and associated interest from the Small Business Administration. The Company recorded a gain of $0.7 million from the PPP loan extinguishment in the statement of operations during the year ended December 31, 2021.

8. Commitments and Contingencies

Operating Leases

The Company leases office and research and development space under a non-cancelable operating lease in Marina del Rey, CA. The lease commenced January 1, 2012 and in April 2020, the Company amended the lease ("2020 Lease Amendment") which, among other things, extended the lease term through December 31, 2031. Base annual rent for calendar year 2022, the first year under the Lease Amendment extended term, was approximately $1.9 million, and base rent increases by 3% annually and will be $2.5 million by the end of the amended term. In addition, the Company received a six-month rent abatement in 2020. The Company did not use an allowance for tenant improvements of $0.8 million during 2021, which was used to offset rent payments as prescribed by the 2020 Lease Amendment starting in 2022. In accordance with authoritative guidance, the Company remeasured the lease liability in April 2020 to be $11.7 million and related right of use asset of $11.0 million as of the Lease Amendment date with an incremental borrowing rate of 12.89%.

Concurrent with the Company's execution of the 2020 Lease Amendment, an irrevocable letter of credit in the amount of $1.2 million was delivered to the landlord. Starting on February 1, 2022, and each year thereafter the letter of credit will be reduced by 20% of the then outstanding amount.

On October 28, 2021, the Company entered into a lease for office and research and development space under a non-cancellable lease in Los Angeles, CA (the "2021 Lease"). The 2021 Lease payment start date is May 1, 2022 and the total lease term is for 16 years and runs through 2038. Monthly rent for 2022 and 2023 will be fully or partially abated while the lessor and the Company complete planned tenant improvements to the facility. Base monthly rent will be approximately $0.25 million in 2024. The Company is entitled to receive an allowance for tenant improvements of up to $7.3 million, and the Company is responsible for construction costs over such allowance. Out of pocket expenses to be incurred by the Company are considered noncash lease payments, and included in the lease liability and right-of-use asset when the amount can be reasonably estimated. As of November 16, 2022, the Company finalized the budget to complete the construction of the 2021 Lease. Accordingly, the Company remeasured the lease liability and related right-of-use asset as of November 30, 2022, using an incremental borrowing rate of 11.8%. The remeasured lease liability of the 2021 Lease as of November 16, 2022 was $37.0 million, and the related right of use asset was $33.8 million.

In connection with the 2021 Lease, in 2022 the Company delivered an irrevocable standby letter of credit in the total amount of $5.0 million to the landlord.

Future minimum annual lease payments under the Company's noncancelable operating leases as of December 31, 2022, are as follows:

		Operating Leases
2023	$	2,904,000
2024		4,512,000
2025		5,139,000
2026		5,293,000
2027		5,452,000
Thereafter		49,395,000
Total minimum lease payments		72,695,000
Plus: estimated short-term variable lease payments		14,954,000
Less: amount representing interest		(38,834,000)
Present value of operating lease obligations		48,815,000
Less: current portion		(17,011,000)
Noncurrent operating lease obligations	$	31,804,000

Rent expense was $6.3 million and $2.7 million for the years ended December 31, 2022 and 2021, respectively. Total cash payments for operating leases as included in the consolidated statements of cash flows during the year ended December 31, 2022 and 2021 was $2.7 million and $2.2 million, respectively.

Legal Proceedings

From time to time, the Company may be involved in disputes, including litigation, relating to claims arising out of operations in the normal course of business. Any of these claims could subject the Company to costly legal expenses and, while management generally believes that there is adequate insurance to cover many different types of liabilities, the Company's insurance carriers may deny coverage or policy limits may be inadequate to fully satisfy any damage awards or settlements. If this were to happen, the payment of any such awards could have a material adverse effect on the consolidated results of operations and financial position. Additionally, any such claims, whether or not successful, could damage the Company's reputation and business. The Company is currently not a party to any legal proceedings, the adverse outcome of which, in management's opinion, individually or in the aggregate, would have a material adverse effect on its consolidated results of operations or financial position.

9. Synthetic Genomics Asset Acquisition

On February 28, 2018, C3J completed an acquisition of certain synthetic phage assets (the "synthetic phage assets") from Synthetic Genomics, Inc. ("SGI"). On December 20, 2018, the synthetic phage assets purchase agreement was amended, such that the purchase consideration consisted of (i) closing consideration of $1.0 million paid on February 28, 2018, (ii) cash payments of $1.0 million on January 31, 2019, $1.0 million on January 31, 2020, and $2.0 million on January 31, 2021, (iii) an issuance of that number of shares of C3J's common stock equal to ten percent of C3J's fully-diluted capitalization, excluding options and restricted stock awards, immediately prior to the closing of a business combination, and (iv) potential milestone payments of up to $39.5 million related to the development and relevant regulatory approval of products utilizing bacteriophage from the synthetic phage assets acquired from SGI.

The present value of the time-based payment obligations was included in the Company's balance sheet, with interest accreted to the maturity date. The Company paid the last installment of the time-based payment obligation in the amount of $2.0 million during

the year ended December 31, 2021. For the year ended December 31, 2022 and 2021, the Company recognized $0 and $0.1 million of interest expense related to the time-based payment obligations, respectively.

10. Research Collaboration Arrangement

In connection with the Synthetic Phage Asset Acquisition discussed in Note 12, the Company was assigned a research collaboration agreement ("Research and Option Agreement") with Merck.

In May 2019, the Research and Option Agreement was amended and extended for four years. During the research term, the Company will be entitled to milestone payments tied to the achievement of product development milestone events in the amount of $1.5 million. The collaboration agreement also provides for the initiation of a second research program should Merck exercise that option during the initial research term and pay the option fee of $1.5 million. To date, Merck has not exercised its license option nor has the Company reached any milestones or earned any revenue under the Research and Option Agreement. Merck has the right to terminate the agreement at any time with 90 days' notice. Each party to the Research and Option Agreement is responsible for its costs and expenses in connection with the research program.

On December 14, 2022, the Company received a termination notice for the Research and Option Agreement effective March 14, 2023.

11. Grants and Awards

MTEC Grant

On June 15, 2020, the Company entered into an Research Project Award agreement (the "MTEC Agreement") with the Medical Technology Enterprise Consortium ("MTEC"), pursuant to which the Company will receive a $15.0 million grant and entered into a three-year program administered by the U.S. Departement of Defence (the "DoD") through MTEC with funding from the Defense Health Agency and Joint Warfighter Medical Research Program. On September 29, 2022, the MTEC Agreement was modified to increase the total award by $1.3 million to $16.3 million and extend the term into the third quarter of 2024. The MTEC funds are to partially fund a Phase 1b/2, randomized, double-blind, placebo-controlled, dose escalation clinical study of Armata's therapeutic phage-based candidate, AP-SA02, for the treatment of complicated Staphylococcus aureus bacteremia infections. The MTEC Agreement specifies that the grant will be paid to the Company over the term of the award through a cost reimbursable model, based on agreed upon cost share percentages, and the grant money received is not refundable to MTEC.

Upon license or commercialization of intellectual property developed with the funding from the MTEC Agreement, additional fees will be due to MTEC. The Company will elect whether to (a) pay a fixed royalty amount, which is subject to a cap based upon total funding received, or (b) pay an additional assessment fee, which would also be subject to a cap based upon a percentage of total funding received.

The MTEC Agreement will be effective through October 30, 2024. The MTEC Agreement may be terminated in whole or in part, 30 calendar days following the written notice from the Company to MTEC. In addition, MTEC has the right to terminate the MTEC Agreement upon material breach by the Company.

The Company determined that the MTEC Agreement is not in the scope of ASC 808 or ASC 606. Applying ASC 606 by analogy the Company recognizes proceeds received under the MTEC Agreement as grant revenue on the statement of operations when related costs are incurred. The Company recognized $5.5 million and$4.5 million in grant revenue from the MTEC Agreement during the year ended December 31, 2022 and 2021, respectively.

CFF Therapeutics Development Award

On March 13, 2020, the Company entered into an award agreement (the "Agreement") with CFF, pursuant to which it received a Therapeutics Development Award of up to $5.0 million (the "Award"). The Award will be used to fund a portion of the Company's Phase 1b/2a clinical trial of the P. aeruginosa phage candidate, AP-PA02, as a treatment for P. aeruginosa airway infections in people with cystic fibrosis ("CF").

The first payment under the Agreement, in the amount of $1.0 million, became due upon signing the Agreement and was received in April 2020. The remainder of the Award will be paid to the Company incrementally in installments upon the achievement of certain milestones related to the development program and progress of the Phase 1b/2a clinical trial of AP-PA02, as set forth in the Agreement.

If the Company ceases to use commercially reasonable efforts directed to the development of AP-PA02, or any other Product (as defined in the Agreement), for a period of 360 days (an "Interruption") and fails to resume the development of the Product after receiving from CFF notice of an Interruption, then the Company must either repay the amount of the Award actually received by the

Company, plus interest, or grant to CFF (1) an exclusive (even as to the Company), worldwide, perpetual, sublicensable license under technology developed under the Agreement that covers the Product for use in treating infections in CF patients (the "CF Field"), and (2) a non-exclusive, worldwide, perpetual, sublicensable license under certain background intellectual property covering the Product, to the extent necessary to commercialize the Product in the CF Field.

Upon commercialization by the Company of any Product, the Company will owe a fixed royalty amount to CFF, which is to be paid in installments determined, in part, based on commercial sales volumes of the Product. The Company will be obligated to make an additional fixed royalty payment upon achieving specified sales milestones. The Company may also be obligated to make a payment to CFF if the Company transfers, sells or licenses the Product in the CF Field, or if the Company enters into a change of control transaction.

The term of the Agreement commenced on March 10, 2020 and expires on the earlier of the date on which the Company has paid CFF all of the fixed royalty payments set forth therein, the effective date of any license granted to CFF following an Interruption, or upon earlier termination of the Agreement. Either CFF or the Company may terminate the Agreement for cause, which includes the Company's material failure to achieve certain development milestones. The Company's payment obligations survive the termination of the Agreement.

The Company concluded that the CFF Award is in the scope of ASC 808. Accordingly, as discussed in Note 3, the Company recognizes the award upon achievement of certain milestones as credits to research and development expenses. During year ended December 31, 2022 and 2021, the Company recognized $1.0 million and $2.8 million as credits to research and development expenses related to the CFF Award, respectively. In addition, the Company concluded under the guidance in ASC 730 that it does not have an obligation to repay funds received once related research and development expenses are incurred.

12. Stockholders' Equity

The Company is authorized to issue one class of shares designated as "Common Stock". The number of shares of common stock authorized to be issued is 217,000,000 shares.

Private Investments

On February 9, 2022, the Company entered into the February 2022 Securities Purchase Agreement to sell its common stock and warrants to Innoviva. The gross proceeds to the Company from the transaction were $45 million, before deducting estimated offering expenses.

Pursuant and subject to the terms and conditions of the securities purchase agreement and related agreements, Innoviva agreed to purchase 9,000,000 newly issued shares of our common stock, at a price of $5.00 per share, and warrants to purchase up to 4,500,000 additional shares of our common stock, with an exercise price of $5.00 per share. The stock purchases were completed in two tranches. On February 9, 2022, Innoviva purchased 3,614,792 shares of common stock and warrants to purchase 1,807,396 shares of common stock for an aggregate purchase price of approximately $18.1 million. On March 31, 2022, upon our stockholders voting in favor of the transaction, Innoviva purchased approximately 5,385,208 shares of common stock and warrants to purchase approximately 2,692,604 shares of common stock for an aggregate purchase price of $26.9 million.

On October 28, 2021, the Company entered into a securities purchase agreement (the "October 2021 Securities Purchase Agreement") with the Cystic Fibrosis Foundation ("CFF"), a Delaware corporation, the Company's partner for its lead Phase 1b/2a clinical development program, and Innoviva Strategic Opportunities LLC, a wholly-owned subsidiary of Innoviva, Inc. (Nasdaq: INVA) (collectively, "Innoviva") for the private placement of newly issued shares of common stock, par value $0.01 per share, of the Company ("Common Stock"). Pursuant to the October 2021 Securities Purchase Agreement, the Company issued and sold 909,091 shares to CFF and 1,212,122 shares to Innoviva, each at a per share price of $3.30 (the "October 2021 Private Placements"). The Company received aggregate gross proceeds from the October 2021 Private Placements of approximately $7.0 million, before deducting transaction expenses.

On January 26, 2021, the Company entered into a securities purchase agreement (the "January 2021 Securities Purchase Agreement") with Innoviva, pursuant to which the Company issued and sold to Innoviva, in a private placement, up to 6,153,847 newly issued shares of Common Stock, and warrants (the "Common Warrants") to purchase up to 6,153,847 shares of Common Stock, with an exercise price per share of $3.25 (the "January 2021 Private Placement").

The warrants expire five years from the issuance date. The Company reviewed the authoritative accounting guidance and determined that the warrants meet the criteria to be accounted for as permanent equity.

Warrants

At December 31, 2022, outstanding warrants to purchase shares of common stock are as follows:

Shares Underlying Outstanding Warrants		Exercise Price	Expiration Date
1,183,491	$	5.60	October 16, 2023
993,139	$	2.87	February 11, 2025
7,717,661	$	2.87	March 27, 2025
1,867,912	$	3.25	January 26, 2026
4,285,935	$	3.25	March 16, 2026
1,807,396	$	5.00	February 8, 2027
2,692,604	$	5.00	March 30, 2027
1,200	$	1,680.00	None
20,549,338			

13. Stock-based Compensation

Stock Award Plans

The Company maintains a 2016 Equity Incentive Plan (the "2016 Plan"), which provides for the issuance of incentive share awards in the form of non-qualified and incentive stock options, stock appreciation rights, restricted stock awards, restricted stock unit awards and performance-based stock awards. The awards may be granted by the Company's Board of Directors to its employees, directors and officers and to consultants, agents, advisors and independent contractors who provide services to the Company or to a subsidiary of the Company. The exercise price for stock options must not be less than the fair market value of the underlying shares on the date of grant. Stock options expire no later than ten years from the date of grant and generally vest and typically become exercisable over a four-year period following the date of grant. Under the 2016 Plan, the number of shares authorized for issuance automatically increases annually beginning January 1, 2017 and through January 1, 2026.

The Company has issued restricted stock awards ("RSAs") under certain legacy option plan that generally vest over two to four years based on service conditions. The RSAs began vesting in May 2019, and no additional awards will be issued under this legacy plan.

Stock-based Compensation

The Company estimates the fair value of stock options with performance and service conditions using the Black-Scholes valuation model. Compensation expense related to stock options granted is measured at the grant date based on the estimated fair value of the award and is recognized on the accelerated attribution method over the requisite service period.

The assumptions used in the Black-Scholes model for options granted during the year ended December 31, 2022 and 2021 are presented below:

	Year ended	
	December 31, 2022	December 31, 2021
Risk-free interest rate	2.65% - 4.20%	0.73% - 1.29%
Expected volatility	81.81% - 85.86%	84.07% - 93.37%
Expected term (in years)	5.50 - 7.00	5.50 - 7.00
Expected dividend yield	0%	0%

The risk-free interest rate is based on the U.S. Treasury yield for a period consistent with the expected term of the option in effect at the time of the grant. Expected volatility is based on an analysis of the historical volatility of Armata and peer companies' common stock. The expected term represents the period that the Company expects its stock options to be outstanding. The expected term assumption is estimated using the simplified method set forth in the U.S. Securities and Exchange Commission Staff Accounting Bulletin 110, which is the mid-point between the option vesting date and the expiration date. For stock options granted to parties other than employees or directors, the Company elects, on a grant by grant basis, to use the expected term or the contractual term of the option award. The Company has never declared or paid dividends on its common stock and has no plans to do so in the foreseeable future. Forfeitures are recognized as a reduction of stock-based compensation expense as they occur.

The tables below summarize the total stock-based compensation expense included in the Company's consolidated statements of operations for the periods presented:

	Year Ended December 31,	
	2022	2021
Research and development	$ 1,794,000	$ 1,505,000
General and administrative	1,311,000	1,377,000
Total stock-based compensation	$ 3,105,000	$ 2,882,000

Stock option transactions during the year ended December 31, 2022 are presented below:

	Options Outstanding			
	Shares	Weighted Average Exercise Price	Weighted Average Remaining Contractual Term (Years)	Aggregate Intrinsic Value
Outstanding at December 31, 2021	2,409,682	$ 5.64	8.00	—
Granted	1,254,500	4.95		—
Exercised	(38,287)	3.29		$ 44,000
Forfeited/Cancelled	(273,092)	6.94		—
Outstanding at December 31, 2022	3,352,803	$ 5.32	7.80	$ —
Vested and expected to vest at December 31, 2022	3,352,803	$ 5.32	7.80	$ —
Exercisable at December 31, 2022	1,438,123	$ 6.17	6.67	$ —

Restricted stock award transactions under the Assumed 2016 Plan and restricted stock unit award transactions during the year ended December 31, 2022 are presented below:

	Shares	Weighted Avg Grant Date Fair Value
Outstanding at December 31, 2021	154,018	$ 27.49
Granted	—	—
Forfeited/Cancelled	(369)	31.85
Vested and Issued as Common Stock	(23,983)	32.88
Outstanding at December 31, 2022	129,666	$ 27.11

The aggregate intrinsic value of options at December 31, 2022 is based on the Company's closing stock price on that date of $1.24 per share. As of December 31, 2022, there was $3.2 million of total unrecognized compensation expense related to unvested stock options and RSAs, excluding unvested RSAs with performance conditions deemed to be improbable for the period ended December 31, 2022, which the Company expects to recognize over the weighted average remaining period of 1.8 years.

Shares Reserved For Future Issuance

As of December 31, 2022, the Company had reserved shares of its common stock for future issuance as follows:

	Shares Reserved
Stock options outstanding	3,352,803
Unvested restricted stock units	30,000
Employee stock purchase plan	9,748
Available for future grants under the 2016 Plan	570,570
Warrants outstanding	20,549,338
Total shares reserved	24,512,459

14. Employee Retirement Plan

The Company's employees participate in an employee retirement plan under Section 401(k) of the Internal Revenue Code of 1986, as amended. All of the Company's employees who meet minimum eligibility requirements are eligible to participate in the plan. The Company did not make matching contributions to the 401(k) plan for the years ended December 31, 2022 and 2021.