UNITED STATES SECURITIES AND EXCHANGE COMMISSION WASHINGTON, DC 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, 2021

OR

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

> For the transition period from Commission File Number: 001-39397

INOZYME PHARMA, INC.

(Exact name of registrant as specified in its charter)

38-4024528 (I.R.S. Employer Identification No.)

Delaware (State or other jurisdiction of incorporation or organization) 321 Summer Street, Suite 400 Boston, Massachusetts (Address of principal executive offices)

02210

(Zip Code)

Registrant's telephone number, including area code: (857) 330-4340

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

Title of each class Common stock, par value \$0.0001 per share Trading Symbol(s) INZY

Name of each exchange on which registered Nasdag Global Select Market

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 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 \boxtimes No \square Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, smaller reporting company, or an emerging growth company. See the definitions of "large accelerated filer," "smaller reporting company," and "emerging growth company" in Rule 12b-2 of the Exchange Act.

Large accelerated filer		Accelerated filer	
Non-accelerated filer	\boxtimes	Smaller reporting company	\times
		Emerging growth company	X

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

As of June 30, 2021, the last business day of the registrant's most recently completed second fiscal quarter, the aggregate market value of the registrant's common stock held by non-affiliates of the registrant, based on the closing price of the registrant's common stock on the Nasdaq Global Select Market on June 30, 2021, was \$245,164,789.

As of March 10, 2022, the registrant had 23,672,566 shares of common stock, \$0.0001 par value per share, outstanding.

DOCUMENTS INCORPORATED BY REFERENCE

The registrant intends to file a definitive proxy statement pursuant to Regulation 14A within 120 days of the end of the fiscal year ended December 31, 2021. Portions of such definitive proxy statement are incorporated by reference into Part III of this Annual Report on Form 10-K.

Auditor Name: Ernst & Young LLP	Auditor Location: Boston, Massachusetts	Auditor Firm ID: 42	

EXPLANATORY NOTE

On March 15, 2022, Inozyme Pharma, Inc. (the "Company") filed its Annual Report on Form 10-K for the fiscal year ended December 31, 2021 (the "Original Form 10-K"). This Amendment No. 1 (the "Amendment") amends the Original Form 10-K solely to correct an administrative error in the content of Exhibit 23.1, Consent of Independent Registered Public Accounting Firm (the "Consent"), that resulted in an improperly worded auditor's consent and omitted reference to a registration statement and related file number. A new Exhibit 23.1 with the appropriate corrections is filed as Exhibit 23.1 attached hereto.

This Amendment speaks as of the original filing date and does not reflect events occurring after the filing of the Original Form 10-K. No revisions are being made to the Company's financial statements or any other disclosure contained in the Original Form 10-K. This Amendment is an exhibit-only filing. Except for Exhibit 23.1, this Amendment does not otherwise update any exhibits as originally filed or previously amended.

In addition, as required by Rule 12b-15 under the Securities Exchange Act of 1934, as amended (the "Exchange Act"), new certifications by the Company's principal executive officer and principal financial officer are filed herewith as exhibits to this Amendment pursuant to Rule 13a-14(a) or 15d-14(a) of the Exchange Act. As no financial statements have been included in this Amendment and this Amendment does not contain or amend any disclosure with respect to Items 307 and 308 of Regulation S-K, paragraphs 3, 4, and 5 of the certifications have been omitted. The Company is not including certifications pursuant to Section 1350 of Chapter 63 of Title 18 of the United States Code (18 U.S.C. 1350) as no financial statements are being filed with this Amendment.

PART IV

Item 15. Exhibits and Financial Statement Schedules.

Exhibit Number	Description of Exhibit
23.1*	Consent of Ernst & Young LLP, independent registered public accounting firm.
31.1*	Certification of Principal Executive Officer Pursuant to Rules 13a-14(a) and 15d-14(a) under the Securities Exchange Act of 1934, as Adopted Pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.
31.2*	Certification of Principal Financial Officer Pursuant to Rules 13a-14(a) and 15d-14(a) under the Securities Exchange Act of 1934, as Adopted Pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.
101.INS	Inline XBRL Instance Document – the instance document does not appear in the Interactive Data File because XBRL tags are embedded within the Inline XBRL document.
101.SCH	Inline XBRL Taxonomy Extension Schema Document
101.CAL	Inline XBRL Taxonomy Extension Calculation Linkbase Document
101.DEF	Inline XBRL Taxonomy Extension Definition Linkbase Document
101.LAB	Inline XBRL Taxonomy Extension Label Linkbase Document
101.PRE	Inline XBRL Taxonomy Extension Presentation Linkbase Document
104	Cover Page Interactive Data File (embedded within Inline XBRL document).
* Filed herewi	41

ii

* Filed 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.

Date: March 31, 2022

INOZYME PHARMA, INC.

By: /s/ Axel Bolte

Axel Bolte

President and Chief Executive Officer

iii

Consent of Independent Registered Public Accounting Firm

We consent to the incorporation by reference in the following Registration Statements:

(1) Registration Statement (Form S-8 No. 333-240146) pertaining to the Amended and Restated 2017 Equity Incentive Plan, as amended, the 2020 Stock Incentive Plan and the 2020 Employee Stock Purchase Plan of Inozyme Pharma, Inc.,

(2) Registration Statement (Form S-8 No. 333-254685) pertaining to the 2020 Stock Incentive Plan and 2020 Employee Stock Purchase Plan of Inozyme Pharma, Inc., and

(3) Registration Statement (Form S-3 No. 333-258702) of Inozyme Pharma, Inc.;

of our report dated March 15, 2022, with respect to the consolidated financial statements of Inozyme Pharma, Inc. included in this Annual Report (Form 10-K) of Inozyme Pharma, Inc. for the year ended December 31, 2021.

/s/ Ernst & Young LLP

Boston, Massachusetts March 31, 2022

CERTIFICATION PURSUANT TO RULES 13a-14(a) AND 15d-14(a) UNDER THE SECURITIES EXCHANGE ACT OF 1934, AS ADOPTED PURSUANT TO SECTION 302 OF THE SARBANES-OXLEY ACT OF 2002

I, Axel Bolte, certify that:

Date: March 31, 2022

1. I have reviewed this Amendment No. 1 to Annual Report on Form 10-K/A of Inozyme Pharma, Inc.; and

By:

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.

/s/ Axel Bolte

Axel Bolte President and Chief Executive Officer (Principal Executive Officer)

CERTIFICATION PURSUANT TO RULES 13a-14(a) AND 15d-14(a) UNDER THE SECURITIES EXCHANGE ACT OF 1934, AS ADOPTED PURSUANT TO SECTION 302 OF THE SARBANES-OXLEY ACT OF 2002

I, Sanjay Subramanian, certify that:

1. I have reviewed this Amendment No. 1 to Annual Report on Form 10-K/A of Inozyme Pharma, Inc.; and

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.

Date: March 31, 2022

By:

/s/ Sanjay Subramanian

Sanjay Subramanian Chief Financial Officer (Principal Financial Officer and Principal Accounting Officer)