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The reader should not assume that the information is accurate and complete.

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

Notice of Exempt Offering of Securities

OMB APPROVAL	
OMB Number:	3235-0076
Estimated average burden hours per response:	4.00

1. Issuer's Identity

CIK (Filer ID Number) 0001327273	Previous Names None	Entity Type
Name of Issuer Lyra Therapeutics, Inc.	480 Biomedical, Inc. Arsenal Vascular, Inc. Arsenal Medical, Inc.	<input checked="" type="checkbox"/> Corporation <input type="checkbox"/> Limited Partnership <input type="checkbox"/> Limited Liability Company <input type="checkbox"/> General Partnership <input type="checkbox"/> Business Trust <input type="checkbox"/> Other (Specify)
Jurisdiction of Incorporation/Organization DELAWARE		
Year of Incorporation/Organization <input checked="" type="checkbox"/> Over Five Years Ago <input type="checkbox"/> Within Last Five Years (Specify Year) <input type="checkbox"/> Yet to Be Formed		

2. Principal Place of Business and Contact Information

Name of Issuer Lyra Therapeutics, Inc.			
Street Address 1 480 Arsenal Way		Street Address 2	
City Watertown	State/Province/Country MASSACHUSETTS	ZIP/PostalCode 02472	Phone Number of Issuer 617-373-4600

3. Related Persons

Last Name Waksal, M.D.	First Name Harlan	Middle Name
Street Address 1 c/o Lyra Therapeutics, Inc.	Street Address 2 480 Arsenal Way	
City Watertown	State/Province/Country MASSACHUSETTS	ZIP/PostalCode 02472
Relationship: <input checked="" type="checkbox"/> Executive Officer <input checked="" type="checkbox"/> Director <input type="checkbox"/> Promoter		

Clarification of Response (if Necessary):

Last Name Palasis, Ph.D.	First Name Maria	Middle Name
Street Address 1 c/o Lyra Therapeutics, Inc.	Street Address 2 480 Arsenal Way	
City Watertown	State/Province/Country MASSACHUSETTS	ZIP/PostalCode 02472
Relationship: <input checked="" type="checkbox"/> Executive Officer <input checked="" type="checkbox"/> Director <input type="checkbox"/> Promoter		

Clarification of Response (if Necessary):

Last Name	First Name	Middle Name
Cavalier	Jason	
Street Address 1	Street Address 2	
c/o Lyra Therapeutics, Inc.	480 Arsenal Way	
City	State/Province/Country	ZIP/PostalCode
Watertown	MASSACHUSETTS	02472
Relationship: X Executive Officer	Director	Promoter

Clarification of Response (if Necessary):

Last Name	First Name	Middle Name
Richard, Ph.D.	Robert	
Street Address 1	Street Address 2	
c/o Lyra Therapeutics, Inc.	480 Arsenal Way	
City	State/Province/Country	ZIP/PostalCode
Watertown	MASSACHUSETTS	02472
Relationship: X Executive Officer	Director	Promoter

Clarification of Response (if Necessary):

Last Name	First Name	Middle Name
Nelson	Pamela	
Street Address 1	Street Address 2	
c/o Lyra Therapeutics, Inc.	480 Arsenal Way	
City	State/Province/Country	ZIP/PostalCode
Watertown	MASSACHUSETTS	02472
Relationship: X Executive Officer	Director	Promoter

Clarification of Response (if Necessary):

Last Name	First Name	Middle Name
Noyes	Corinne	
Street Address 1	Street Address 2	
c/o Lyra Therapeutics, Inc.	480 Arsenal Way	
City	State/Province/Country	ZIP/PostalCode
Watertown	MASSACHUSETTS	02472
Relationship: X Executive Officer	Director	Promoter

Clarification of Response (if Necessary):

Last Name	First Name	Middle Name
Altman	Michael	
Street Address 1	Street Address 2	
c/o Lyra Therapeutics, Inc.	480 Arsenal Way	
City	State/Province/Country	ZIP/PostalCode
Watertown	MASSACHUSETTS	02472
Relationship: Executive Officer X	Director	Promoter

Clarification of Response (if Necessary):

Last Name	First Name	Middle Name
Anderson	Edward	
Street Address 1	Street Address 2	
c/o Lyra Therapeutics, Inc.	480 Arsenal Way	
City	State/Province/Country	ZIP/PostalCode
Watertown	MASSACHUSETTS	02472

Relationship: Executive Officer X Director Promoter

Clarification of Response (if Necessary):

Last Name	First Name	Middle Name
Merrifield	C.	Ann
Street Address 1	Street Address 2	
c/o Lyra Therapeutics, Inc.	480 Arsenal Way	
City	State/Province/Country	ZIP/PostalCode
Watertown	MASSACHUSETTS	02472

Relationship: Executive Officer X Director Promoter

Clarification of Response (if Necessary):

Last Name	First Name	Middle Name
Poukalov	Konstantin	
Street Address 1	Street Address 2	
c/o Lyra Therapeutics, Inc.	480 Arsenal Way	
City	State/Province/Country	ZIP/PostalCode
Watertown	MASSACHUSETTS	02472

Relationship: Executive Officer X Director Promoter

Clarification of Response (if Necessary):

Last Name	First Name	Middle Name
Smith	W.	Bradford
Street Address 1	Street Address 2	
c/o Lyra Therapeutics, Inc.	480 Arsenal Way	
City	State/Province/Country	ZIP/PostalCode
Watertown	MASSACHUSETTS	02472

Relationship: Executive Officer X Director Promoter

Clarification of Response (if Necessary):

Last Name	First Name	Middle Name
Snyderman, M.D., FACS	Nancy	
Street Address 1	Street Address 2	
c/o Lyra Therapeutics, Inc.	480 Arsenal Way	
City	State/Province/Country	ZIP/PostalCode
Watertown	MASSACHUSETTS	02472

Relationship: Executive Officer X Director Promoter

Clarification of Response (if Necessary):

Last Name	First Name	Middle Name
Tobin	James	R.
Street Address 1	Street Address 2	
c/o Lyra Therapeutics, Inc.	480 Arsenal Way	
City	State/Province/Country	ZIP/PostalCode
Watertown	MASSACHUSETTS	02472

Relationship: Executive Officer X Director Promoter

Clarification of Response (if Necessary):

Agriculture
 Banking & Financial Services
 Commercial Banking
 Insurance
 Investing
 Investment Banking
 Pooled Investment Fund
 Is the issuer registered as an investment company under the Investment Company Act of 1940?
 Yes No
 Other Banking & Financial Services
 Business Services
 Energy
 Coal Mining
 Electric Utilities
 Energy Conservation
 Environmental Services
 Oil & Gas
 Other Energy

Health Care
 X Biotechnology
 Health Insurance
 Hospitals & Physicians
 Pharmaceuticals
 Other Health Care
 Manufacturing
 Real Estate
 Commercial
 Construction
 REITS & Finance
 Residential
 Other Real Estate

Retailing
 Restaurants
 Technology
 Computers
 Telecommunications
 Other Technology
 Travel
 Airlines & Airports
 Lodging & Conventions
 Tourism & Travel Services
 Other Travel
 Other

5. Issuer Size

Revenue Range	OR	Aggregate Net Asset Value Range
No Revenues		No Aggregate Net Asset Value
\$1 - \$1,000,000		\$1 - \$5,000,000
\$1,000,001 - \$5,000,000		\$5,000,001 - \$25,000,000
\$5,000,001 - \$25,000,000		\$25,000,001 - \$50,000,000
\$25,000,001 - \$100,000,000		\$50,000,001 - \$100,000,000
Over \$100,000,000		Over \$100,000,000
X Decline to Disclose		Decline to Disclose
Not Applicable		Not Applicable

6. Federal Exemption(s) and Exclusion(s) Claimed (select all that apply)

	Investment Company Act Section 3(c)	
Rule 504(b)(1) (not (i), (ii) or (iii))	Section 3(c)(1)	Section 3(c)(9)
Rule 504 (b)(1)(i)	Section 3(c)(2)	Section 3(c)(10)
Rule 504 (b)(1)(ii)	Section 3(c)(3)	Section 3(c)(11)
Rule 504 (b)(1)(iii)	Section 3(c)(4)	Section 3(c)(12)
X Rule 506(b)	Section 3(c)(5)	Section 3(c)(13)
Rule 506(c)	Section 3(c)(6)	Section 3(c)(14)
Securities Act Section 4(a)(5)	Section 3(c)(7)	

7. Type of Filing

X New Notice Date of First Sale 2022-04-12 First Sale Yet to Occur
 Amendment

8. Duration of Offering

Does the Issuer intend this offering to last more than one year? Yes No

9. Type(s) of Securities Offered (select all that apply)

<input checked="" type="checkbox"/> Equity	<input type="checkbox"/> Pooled Investment Fund Interests
<input type="checkbox"/> Debt	<input type="checkbox"/> Tenant-in-Common Securities
<input checked="" type="checkbox"/> Option, Warrant or Other Right to Acquire Another Security	<input type="checkbox"/> Mineral Property Securities
<input type="checkbox"/> Security to be Acquired Upon Exercise of Option, Warrant or Other Right to Acquire Security	<input type="checkbox"/> Other (describe)

10. Business Combination Transaction

Is this offering being made in connection with a business combination transaction, such as a merger, acquisition or exchange offer? Yes No

Clarification of Response (if Necessary):

11. Minimum Investment

Minimum investment accepted from any outside investor \$0 USD

12. Sales Compensation

Recipient	Recipient CRD Number	None
MTS Securities, LLC	104059	
(Associated) Broker or Dealer <input checked="" type="checkbox"/> None	(Associated) Broker or Dealer CRD Number	<input checked="" type="checkbox"/> None
None	None	

	Street Address 1		Street Address 2	
	633 Fifth Ave., 14th Floor			
City		State/Province/Country		ZIP/Postal Code
New York		NEW YORK		10022
State(s) of Solicitation (select all that apply)				
Check "All States" or check individual States	<input checked="" type="checkbox"/> All States	<input type="checkbox"/> Foreign/non-US		

13. Offering and Sales Amounts

Total Offering Amount	\$100,494,970 USD	or	Indefinite
Total Amount Sold	\$100,494,970 USD		
Total Remaining to be Sold	\$0 USD	or	Indefinite

Clarification of Response (if Necessary):

14. Investors

Select if securities in the offering have been or may be sold to persons who do not qualify as accredited investors, and enter the number of such non-accredited investors who already have invested in the offering. Regardless of whether securities in the offering have been or may be sold to persons who do not qualify as accredited investors, enter the total number of investors who already have invested in the offering:

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15. Sales Commissions & Finder's Fees Expenses

Provide separately the amounts of sales commissions and finders fees expenses, if any. If the amount of an expenditure is not known, provide an estimate and check the box next to the amount.

Sales Commissions	\$3,840,932 USD	<input type="checkbox"/> Estimate
Finders' Fees	\$0 USD	<input type="checkbox"/> Estimate

Clarification of Response (if Necessary):

Includes \$1,233.27 for reimbursement of expenses

16. Use of Proceeds

Provide the amount of the gross proceeds of the offering that has been or is proposed to be used for payments to any of the persons required to be named as executive officers, directors or promoters in response to Item 3 above. If the amount is unknown, provide an estimate and check the box next to the amount.

\$0 USD Estimate

Clarification of Response (if Necessary):

Signature and Submission

Please verify the information you have entered and review the Terms of Submission below before signing and clicking SUBMIT below to file this notice.

Terms of Submission

In submitting this notice, each issuer named above is:

- Notifying the SEC and/or each State in which this notice is filed of the offering of securities described and undertaking to furnish them, upon written request, in the accordance with applicable law, the information furnished to offerees.*
- Irrevocably appointing each of the Secretary of the SEC and, the Securities Administrator or other legally designated officer of the State in which the issuer maintains its principal place of business and any State in which this notice is filed, as its agents for service of process, and agreeing that these persons may accept service on its behalf, of any notice, process or pleading, and further agreeing that such service may be made by registered or certified mail, in any Federal or state action, administrative proceeding, or arbitration brought against the issuer in any place subject to the jurisdiction of the United States, if the action, proceeding or arbitration (a) arises out of any activity in connection with the offering of securities that is the subject of this notice, and (b) is founded, directly or indirectly, upon the provisions of: (i) the Securities Act of 1933, the Securities Exchange Act of 1934, the Trust Indenture Act of 1939, the Investment Company Act of 1940, or the Investment Advisers Act of 1940, or any rule or regulation under any of these statutes, or (ii) the laws of the State in which the issuer maintains its principal place of business or any State in which this notice is filed.
- Certifying that, if the issuer is claiming a Regulation D exemption for the offering, the issuer is not disqualified from relying on Rule 504 or Rule 506 for one of the reasons stated in Rule 504(b)(3) or Rule 506(d).

Each Issuer identified above has read this notice, knows the contents to be true, and has duly caused this notice to be signed on its behalf by the undersigned duly authorized person.

For signature, type in the signer's name or other letters or characters adopted or authorized as the signer's signature.

Issuer	Signature	Name of Signer	Title	Date
Lyra Therapeutics, Inc.	/s/ Maria Palasis, Ph.D.	Maria Palasis, Ph.D.	President and Chief Executive Officer	2022-04-26

Persons who respond to the collection of information contained in this form are not required to respond unless the form displays a currently valid OMB number.

* This undertaking does not affect any limits Section 102(a) of the National Securities Markets Improvement Act of 1996 ("NSMIA") [Pub. L. No. 104-290, 110 Stat. 3416 (Oct. 11, 1996)] imposes on the ability of States to require information. As a result, if the securities that are the subject of this Form D are "covered securities" for purposes of NSMIA, whether in all instances or due to the nature of the offering that is the subject of this Form D, States cannot routinely require offering materials under this undertaking or otherwise and can require offering materials only to the extent NSMIA permits them to do so under NSMIA's preservation of their anti-fraud authority.