

Form 5500

Annual Return/Report of Employee Benefit Plan

OMB Nos. 1210-0110 1210-0089

2024

This Form is Open to Public Inspection

Department of the Treasury Internal Revenue Service

Department of Labor Employee Benefits Security Administration

Pension Benefit Guaranty Corporation

This form is required to be filed for employee benefit plans under sections 104 and 4065 of the Employee Retirement Income Security Act of 1974 (ERISA) and sections 6057(b) and 6058(a) of the Internal Revenue Code (the Code).

Complete all entries in accordance with the instructions to the Form 5500.

Part I Annual Report Identification Information

For calendar plan year 2024 or fiscal plan year beginning 01/01/2024 and ending 12/31/2024

- A This return/report is for: a multiemployer plan, a multiple-employer plan, a single-employer plan, a DFE, etc.
B This return/report is: the first return/report, the final return/report, an amended return/report, a short plan year return/report, etc.
C If the plan is a collectively-bargained plan, check here.
D Check box if filing under: Form 5558, automatic extension, the DFVC program, special extension, etc.
E If this is a retroactively adopted plan permitted by SECURE Act section 201, check here.

Part II Basic Plan Information—enter all requested information

1a Name of plan: ASSEMBLY BIOSCIENCES, INC. 401(K) PLAN
1b Three-digit plan number (PN): 001
1c Effective date of plan: 01/01/2018
2a Plan sponsor's name, mailing address, city, state, and ZIP: ASSEMBLY BIOSCIENCES, INC., 2 TOWER PL, STE 700, SOUTH SAN FRANCISCO, CA 94080
2b Employer Identification Number (EIN): 20-8729264
2c Plan Sponsor's telephone number: 833-509-4583
2d Business code (see instructions): 541700

Caution: A penalty for the late or incomplete filing of this return/report will be assessed unless reasonable cause is established.

Under penalties of perjury and other penalties set forth in the instructions, I declare that I have examined this return/report, including accompanying schedules, statements and attachments, as well as the electronic version of this return/report, and to the best of my knowledge and belief, it is true, correct, and complete.

Table with 4 columns: SIGN HERE, Signature of plan administrator, Date, Enter name of individual signing as plan administrator. Includes rows for employer/plan sponsor and DFE.

For Paperwork Reduction Act Notice, see the Instructions for Form 5500.

Form 5500 (2024) v. 240311

3a Plan administrator's name and address <input checked="" type="checkbox"/> Same as Plan Sponsor	3b Administrator's EIN	
	3c Administrator's telephone number	
4 If the name and/or EIN of the plan sponsor or the plan name has changed since the last return/report filed for this plan, enter the plan sponsor's name, EIN, the plan name and the plan number from the last return/report: a Sponsor's name c Plan Name	4b EIN	
	4d PN	
5 Total number of participants at the beginning of the plan year	5	139
6 Number of participants as of the end of the plan year unless otherwise stated (welfare plans complete only lines 6a(1) , 6a(2) , 6b , 6c , and 6d). a(1) Total number of active participants at the beginning of the plan year a(2) Total number of active participants at the end of the plan year b Retired or separated participants receiving benefits..... c Other retired or separated participants entitled to future benefits d Subtotal. Add lines 6a(2) , 6b , and 6c e Deceased participants whose beneficiaries are receiving or are entitled to receive benefits. f Total. Add lines 6d and 6e g(1) Number of participants with account balances as of the beginning of the plan year (only defined contribution plans complete this item) g(2) Number of participants with account balances as of the end of the plan year (only defined contribution plans complete this item) h Number of participants who terminated employment during the plan year with accrued benefits that were less than 100% vested.....	6a(1)	64
	6a(2)	72
	6b	1
	6c	64
	6d	137
	6e	0
	6f	137
	6g(1)	139
6g(2)	135	
6h	0	
7 Enter the total number of employers obligated to contribute to the plan (only multiemployer plans complete this item)	7	

8a If the plan provides pension benefits, enter the applicable pension feature codes from the List of Plan Characteristics Codes in the instructions:
2F 2G 2J 2K 2T 2E 3D

b If the plan provides welfare benefits, enter the applicable welfare feature codes from the List of Plan Characteristics Codes in the instructions:

9a Plan funding arrangement (check all that apply)	9b Plan benefit arrangement (check all that apply)
(1) <input type="checkbox"/> Insurance	(1) <input type="checkbox"/> Insurance
(2) <input type="checkbox"/> Code section 412(e)(3) insurance contracts	(2) <input type="checkbox"/> Code section 412(e)(3) insurance contracts
(3) <input checked="" type="checkbox"/> Trust	(3) <input checked="" type="checkbox"/> Trust
(4) <input type="checkbox"/> General assets of the sponsor	(4) <input type="checkbox"/> General assets of the sponsor

10 Check all applicable boxes in 10a and 10b to indicate which schedules are attached, and, where indicated, enter the number attached. (See instructions)

a Pension Schedules

- (1) **R** (Retirement Plan Information)
- (2) **MB** (Multiemployer Defined Benefit Plan and Certain Money Purchase Plan Actuarial Information) - signed by the plan actuary
- (3) **SB** (Single-Employer Defined Benefit Plan Actuarial Information) - signed by the plan actuary
- (4) **DCG** (Individual Plan Information) – Number Attached _____
- (5) **MEP** (Multiple-Employer Retirement Plan Information)

b General Schedules

- (1) **H** (Financial Information)
- (2) **I** (Financial Information – Small Plan)
- (3) **A** (Insurance Information) – Number Attached 0
- (4) **C** (Service Provider Information)
- (5) **D** (DFE/Participating Plan Information)
- (6) **G** (Financial Transaction Schedules)

Part III Form M-1 Compliance Information (to be completed by welfare benefit plans)

11a If the plan provides welfare benefits, was the plan subject to the Form M-1 filing requirements during the plan year? (See instructions and 29 CFR 2520.101-2.) Yes No

If "Yes" is checked, complete lines 11b and 11c.

11b Is the plan currently in compliance with the Form M-1 filing requirements? (See instructions and 29 CFR 2520.101-2.) Yes No

11c Enter the Receipt Confirmation Code for the 2024 Form M-1 annual report. If the plan was not required to file the 2024 Form M-1 annual report, enter the Receipt Confirmation Code for the most recent Form M-1 that was required to be filed under the Form M-1 filing requirements. (Failure to enter a valid Receipt Confirmation Code will subject the Form 5500 filing to rejection as incomplete.)

Receipt Confirmation Code _____

SCHEDULE C (Form 5500) <small>Department of the Treasury Internal Revenue Service</small> <small>Department of Labor Employee Benefits Security Administration</small> <small>Pension Benefit Guaranty Corporation</small>	Service Provider Information This schedule is required to be filed under section 104 of the Employee Retirement Income Security Act of 1974 (ERISA). ▶ File as an attachment to Form 5500.	<small>OMB No. 1210-0110</small> 2024 This Form is Open to Public Inspection.
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For calendar plan year 2024 or fiscal plan year beginning **01/01/2024** and ending **12/31/2024**

A Name of plan ASSEMBLY BIOSCIENCES, INC. 401(K) PLAN	B Three-digit plan number (PN) ▶	001
C Plan sponsor's name as shown on line 2a of Form 5500 ASSEMBLY BIOSCIENCES, INC.	D Employer Identification Number (EIN) 20-8729264	

Part I Service Provider Information (see instructions)

You must complete this Part, in accordance with the instructions, to report the information required for **each person** who received, directly or indirectly, \$5,000 or more in total compensation (i.e., money or anything else of monetary value) in connection with services rendered to the plan or the person's position with the plan during the plan year. If a person received **only** eligible indirect compensation for which the plan received the required disclosures, you are required to answer line 1 but are not required to include that person when completing the remainder of this Part.

1 Information on Persons Receiving Only Eligible Indirect Compensation

a Check "Yes" or "No" to indicate whether you are excluding a person from the remainder of this Part because they received only eligible indirect compensation for which the plan received the required disclosures (see instructions for definitions and conditions)..... Yes No

b If you answered line 1a "Yes," enter the name and EIN or address of each person providing the required disclosures for the service providers who received only eligible indirect compensation. Complete as many entries as needed (see instructions).

(b) Enter name and EIN or address of person who provided you disclosures on eligible indirect compensation

FIDELITY INVESTMENTS INSTITUTIONAL

04-2647786

(b) Enter name and EIN or address of person who provided you disclosures on eligible indirect compensation

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(b) Enter name and EIN or address of person who provided you disclosures on eligible indirect compensation

2. Information on Other Service Providers Receiving Direct or Indirect Compensation. Except for those persons for whom you answered "Yes" to line 1a above, complete as many entries as needed to list each person receiving, directly or indirectly, \$5,000 or more in total compensation (i.e., money or anything else of value) in connection with services rendered to the plan or their position with the plan during the plan year. (See instructions).

(a) Enter name and EIN or address (see instructions)

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04-2647786

(b) Service Code(s)	(c) Relationship to employer, employee organization, or person known to be a party-in-interest	(d) Enter direct compensation paid by the plan. If none, enter -0-.	(e) Did service provider receive indirect compensation? (sources other than plan or plan sponsor)	(f) Did indirect compensation include eligible indirect compensation, for which the plan received the required disclosures?	(g) Enter total indirect compensation received by service provider excluding eligible indirect compensation for which you answered "Yes" to element (f). If none, enter -0-.	(h) Did the service provider give you a formula instead of an amount or estimated amount?
37 60 64 65	RECORDKEEPER	24296	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	0	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>

(a) Enter name and EIN or address (see instructions)

(b) Service Code(s)	(c) Relationship to employer, employee organization, or person known to be a party-in-interest	(d) Enter direct compensation paid by the plan. If none, enter -0-.	(e) Did service provider receive indirect compensation? (sources other than plan or plan sponsor)	(f) Did indirect compensation include eligible indirect compensation, for which the plan received the required disclosures?	(g) Enter total indirect compensation received by service provider excluding eligible indirect compensation for which you answered "Yes" to element (f). If none, enter -0-.	(h) Did the service provider give you a formula instead of an amount or estimated amount?
			Yes <input type="checkbox"/> No <input type="checkbox"/>	Yes <input type="checkbox"/> No <input type="checkbox"/>		Yes <input type="checkbox"/> No <input type="checkbox"/>

(a) Enter name and EIN or address (see instructions)

(b) Service Code(s)	(c) Relationship to employer, employee organization, or person known to be a party-in-interest	(d) Enter direct compensation paid by the plan. If none, enter -0-.	(e) Did service provider receive indirect compensation? (sources other than plan or plan sponsor)	(f) Did indirect compensation include eligible indirect compensation, for which the plan received the required disclosures?	(g) Enter total indirect compensation received by service provider excluding eligible indirect compensation for which you answered "Yes" to element (f). If none, enter -0-.	(h) Did the service provider give you a formula instead of an amount or estimated amount?
			Yes <input type="checkbox"/> No <input type="checkbox"/>	Yes <input type="checkbox"/> No <input type="checkbox"/>		Yes <input type="checkbox"/> No <input type="checkbox"/>

Part I Service Provider Information (continued)

3. If you reported on line 2 receipt of indirect compensation, other than eligible indirect compensation, by a service provider, and the service provider is a fiduciary or provides contract administrator, consulting, custodial, investment advisory, investment management, broker, or recordkeeping services, answer the following questions for (a) each source from whom the service provider received \$1,000 or more in indirect compensation and (b) each source for whom the service provider gave you a formula used to determine the indirect compensation instead of an amount or estimated amount of the indirect compensation. Complete as many entries as needed to report the required information for each source.

(a) Enter service provider name as it appears on line 2	(b) Service Codes (see instructions)	(c) Enter amount of indirect compensation
FIDELITY INVESTMENTS INSTITUTIONAL	60	0
(d) Enter name and EIN (address) of source of indirect compensation	(e) Describe the indirect compensation, including any formula used to determine the service provider's eligibility for or the amount of the indirect compensation.	
DODGE & COX STOCK I - SS&C GIDS, I 1345 AVENUE OF THE AMERICAS NEW YORK, NY 10105	0.10%	
(a) Enter service provider name as it appears on line 2	(b) Service Codes (see instructions)	(c) Enter amount of indirect compensation
(d) Enter name and EIN (address) of source of indirect compensation	(e) Describe the indirect compensation, including any formula used to determine the service provider's eligibility for or the amount of the indirect compensation.	
(a) Enter service provider name as it appears on line 2	(b) Service Codes (see instructions)	(c) Enter amount of indirect compensation
(d) Enter name and EIN (address) of source of indirect compensation	(e) Describe the indirect compensation, including any formula used to determine the service provider's eligibility for or the amount of the indirect compensation.	

Part II Service Providers Who Fail or Refuse to Provide Information

4 Provide, to the extent possible, the following information for each service provider who failed or refused to provide the information necessary to complete this Schedule.

(a) Enter name and EIN or address of service provider (see instructions)	(b) Nature of Service Code(s)	(c) Describe the information that the service provider failed or refused to provide

(a) Enter name and EIN or address of service provider (see instructions)	(b) Nature of Service Code(s)	(c) Describe the information that the service provider failed or refused to provide

(a) Enter name and EIN or address of service provider (see instructions)	(b) Nature of Service Code(s)	(c) Describe the information that the service provider failed or refused to provide

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(a) Enter name and EIN or address of service provider (see instructions)	(b) Nature of Service Code(s)	(c) Describe the information that the service provider failed or refused to provide

Part III Termination Information on Accountants and Enrolled Actuaries (see instructions)
(complete as many entries as needed)

a Name:	b EIN:
c Position:	
d Address:	e Telephone:

Explanation:

a Name:	b EIN:
c Position:	
d Address:	e Telephone:

Explanation:

a Name:	b EIN:
c Position:	
d Address:	e Telephone:

Explanation:

a Name:	b EIN:
c Position:	
d Address:	e Telephone:

Explanation:

a Name:	b EIN:
c Position:	
d Address:	e Telephone:

Explanation:

SCHEDULE D (Form 5500) <small>Department of the Treasury Internal Revenue Service</small> <small>Department of Labor Employee Benefits Security Administration</small>	DFE/Participating Plan Information This schedule is required to be filed under section 104 of the Employee Retirement Income Security Act of 1974 (ERISA). ▶ File as an attachment to Form 5500.	<small>OMB No. 1210-0110</small> 2024 This Form is Open to Public Inspection.
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For calendar plan year 2024 or fiscal plan year beginning 01/01/2024 and ending 12/31/2024

A Name of plan <u>ASSEMBLY BIOSCIENCES, INC. 401(K) PLAN</u>	B Three-digit plan number (PN) ▶	<u>001</u>
C Plan or DFE sponsor's name as shown on line 2a of Form 5500 <u>ASSEMBLY BIOSCIENCES, INC.</u>	D Employer Identification Number (EIN) <u>20-8729264</u>	

Part I	Information on interests in MTIAs, CCTs, PSAs, and 103-12 IEs (to be completed by plans and DFEs) (Complete as many entries as needed to report all interests in DFEs)
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a Name of MTIA, CCT, PSA, or 103-12 IE: PUTNAM STABLE VALUE

b Name of sponsor of entity listed in (a): PUTNAM FIDUCIARY TRUST COMPANY

c EIN-PN <u>04-3159710-202</u>	d Entity code <u>C</u>	e Dollar value of interest in MTIA, CCT, PSA, or 103-12 IE at end of year (see instructions) <u>371093</u>
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a Name of MTIA, CCT, PSA, or 103-12 IE:

b Name of sponsor of entity listed in (a):

c EIN-PN	d Entity code	e Dollar value of interest in MTIA, CCT, PSA, or 103-12 IE at end of year (see instructions)
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a Name of MTIA, CCT, PSA, or 103-12 IE:

b Name of sponsor of entity listed in (a):

c EIN-PN	d Entity code	e Dollar value of interest in MTIA, CCT, PSA, or 103-12 IE at end of year (see instructions)
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a Name of MTIA, CCT, PSA, or 103-12 IE:

b Name of sponsor of entity listed in (a):

c EIN-PN	d Entity code	e Dollar value of interest in MTIA, CCT, PSA, or 103-12 IE at end of year (see instructions)
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a Name of MTIA, CCT, PSA, or 103-12 IE:

b Name of sponsor of entity listed in (a):

c EIN-PN	d Entity code	e Dollar value of interest in MTIA, CCT, PSA, or 103-12 IE at end of year (see instructions)
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a Name of MTIA, CCT, PSA, or 103-12 IE:

b Name of sponsor of entity listed in (a):

c EIN-PN	d Entity code	e Dollar value of interest in MTIA, CCT, PSA, or 103-12 IE at end of year (see instructions)
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a Name of MTIA, CCT, PSA, or 103-12 IE:

b Name of sponsor of entity listed in (a):

c EIN-PN	d Entity code	e Dollar value of interest in MTIA, CCT, PSA, or 103-12 IE at end of year (see instructions)
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a Name of MTIA, CCT, PSA, or 103-12 IE:

b Name of sponsor of entity listed in (a):

c EIN-PN	d Entity code	e Dollar value of interest in MTIA, CCT, PSA, or 103-12 IE at end of year (see instructions)
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a Name of MTIA, CCT, PSA, or 103-12 IE:

b Name of sponsor of entity listed in (a):

c EIN-PN

d Entity code

e Dollar value of interest in MTIA, CCT, PSA, or 103-12 IE at end of year (see instructions)

a Name of MTIA, CCT, PSA, or 103-12 IE:

b Name of sponsor of entity listed in (a):

c EIN-PN

d Entity code

e Dollar value of interest in MTIA, CCT, PSA, or 103-12 IE at end of year (see instructions)

a Name of MTIA, CCT, PSA, or 103-12 IE:

b Name of sponsor of entity listed in (a):

c EIN-PN

d Entity code

e Dollar value of interest in MTIA, CCT, PSA, or 103-12 IE at end of year (see instructions)

a Name of MTIA, CCT, PSA, or 103-12 IE:

b Name of sponsor of entity listed in (a):

c EIN-PN

d Entity code

e Dollar value of interest in MTIA, CCT, PSA, or 103-12 IE at end of year (see instructions)

a Name of MTIA, CCT, PSA, or 103-12 IE:

b Name of sponsor of entity listed in (a):

c EIN-PN

d Entity code

e Dollar value of interest in MTIA, CCT, PSA, or 103-12 IE at end of year (see instructions)

a Name of MTIA, CCT, PSA, or 103-12 IE:

b Name of sponsor of entity listed in (a):

c EIN-PN

d Entity code

e Dollar value of interest in MTIA, CCT, PSA, or 103-12 IE at end of year (see instructions)

a Name of MTIA, CCT, PSA, or 103-12 IE:

b Name of sponsor of entity listed in (a):

c EIN-PN

d Entity code

e Dollar value of interest in MTIA, CCT, PSA, or 103-12 IE at end of year (see instructions)

a Name of MTIA, CCT, PSA, or 103-12 IE:

b Name of sponsor of entity listed in (a):

c EIN-PN

d Entity code

e Dollar value of interest in MTIA, CCT, PSA, or 103-12 IE at end of year (see instructions)

a Name of MTIA, CCT, PSA, or 103-12 IE:

b Name of sponsor of entity listed in (a):

c EIN-PN

d Entity code

e Dollar value of interest in MTIA, CCT, PSA, or 103-12 IE at end of year (see instructions)

a Name of MTIA, CCT, PSA, or 103-12 IE:

b Name of sponsor of entity listed in (a):

c EIN-PN

d Entity code

e Dollar value of interest in MTIA, CCT, PSA, or 103-12 IE at end of year (see instructions)

SCHEDULE H (Form 5500) <small>Department of the Treasury Internal Revenue Service</small> <small>Department of Labor Employee Benefits Security Administration</small> <small>Pension Benefit Guaranty Corporation</small>	Financial Information This schedule is required to be filed under section 104 of the Employee Retirement Income Security Act of 1974 (ERISA), and section 6058(a) of the Internal Revenue Code (the Code). ▶ File as an attachment to Form 5500.	<small>OMB No. 1210-0110</small> 2024 This Form is Open to Public Inspection
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For calendar plan year 2024 or fiscal plan year beginning 01/01/2024 and ending 12/31/2024	
A Name of plan ASSEMBLY BIOSCIENCES, INC. 401(K) PLAN	B Three-digit plan number (PN) ▶ 001
C Plan sponsor's name as shown on line 2a of Form 5500 ASSEMBLY BIOSCIENCES, INC.	D Employer Identification Number (EIN) 20-8729264

Part I	Asset and Liability Statement
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1 Current value of plan assets and liabilities at the beginning and end of the plan year. Combine the value of plan assets held in more than one trust. Report the value of the plan's interest in a commingled fund containing the assets of more than one plan on a line-by-line basis unless the value is reportable on lines 1c(9) through 1c(14). Do not enter the value of that portion of an insurance contract which guarantees, during this plan year, to pay a specific dollar benefit at a future date. **Round off amounts to the nearest dollar.** MTIAs, CCTs, PSAs, and 103-12 IEs do not complete lines 1b(1), 1b(2), 1c(8), 1g, 1h, and 1i. CCTs, PSAs, and 103-12 IEs also do not complete lines 1d and 1e. See instructions.

		(a) Beginning of Year	(b) End of Year
Assets			
a Total noninterest-bearing cash	1a	0	0
b Receivables (less allowance for doubtful accounts):			
(1) Employer contributions	1b(1)	0	0
(2) Participant contributions	1b(2)	0	0
(3) Other	1b(3)	0	0
c General investments:			
(1) Interest-bearing cash (include money market accounts & certificates of deposit)	1c(1)	2985	5205
(2) U.S. Government securities	1c(2)	0	0
(3) Corporate debt instruments (other than employer securities):			
(A) Preferred	1c(3)(A)	0	0
(B) All other	1c(3)(B)	0	0
(4) Corporate stocks (other than employer securities):			
(A) Preferred	1c(4)(A)	0	0
(B) Common	1c(4)(B)	0	0
(5) Partnership/joint venture interests	1c(5)	0	0
(6) Real estate (other than employer real property)	1c(6)	0	0
(7) Loans (other than to participants)	1c(7)	0	0
(8) Participant loans	1c(8)	12084	90730
(9) Value of interest in common/collective trusts	1c(9)	473325	371093
(10) Value of interest in pooled separate accounts	1c(10)	0	0
(11) Value of interest in master trust investment accounts	1c(11)	0	0
(12) Value of interest in 103-12 investment entities	1c(12)	0	0
(13) Value of interest in registered investment companies (e.g., mutual funds)	1c(13)	13923991	17739680
(14) Value of funds held in insurance company general account (unallocated contracts)	1c(14)	0	0
(15) Other	1c(15)	0	0

1d Employer-related investments:		(a) Beginning of Year	(b) End of Year
(1) Employer securities.....	1d(1)	0	0
(2) Employer real property.....	1d(2)	0	0
e Buildings and other property used in plan operation.....	1e	0	0
f Total assets (add all amounts in lines 1a through 1e).....	1f	14412385	18206708
Liabilities			
g Benefit claims payable.....	1g	0	0
h Operating payables.....	1h	0	0
i Acquisition indebtedness.....	1i	0	0
j Other liabilities.....	1j	0	0
k Total liabilities (add all amounts in lines 1g through 1j).....	1k	0	0
Net Assets			
l Net assets (subtract line 1k from line 1f).....	1l	14412385	18206708

Part II Income and Expense Statement

2 Plan income, expenses, and changes in net assets for the year. Include all income and expenses of the plan, including any trust(s) or separately maintained fund(s) and any payments/receipts to/from insurance carriers. Round off amounts to the nearest dollar. MTIAs, CCTs, PSAs, and 103-12 IEs do not complete lines 2a, 2b(1)(E), 2e, 2f, and 2g.

Income		(a) Amount	(b) Total
a Contributions:			
(1) Received or receivable in cash from: (A) Employers.....	2a(1)(A)	698142	
(B) Participants.....	2a(1)(B)	1760866	
(C) Others (including rollovers).....	2a(1)(C)	120701	
(2) Noncash contributions.....	2a(2)	0	2579709
(3) Total contributions. Add lines 2a(1)(A) , (B) , (C) , and line 2a(2)	2a(3)		
b Earnings on investments:			
(1) Interest:			
(A) Interest-bearing cash (including money market accounts and certificates of deposit).....	2b(1)(A)	217	
(B) U.S. Government securities.....	2b(1)(B)	0	
(C) Corporate debt instruments.....	2b(1)(C)	0	
(D) Loans (other than to participants).....	2b(1)(D)	0	
(E) Participant loans.....	2b(1)(E)	4360	
(F) Other.....	2b(1)(F)	0	
(G) Total interest. Add lines 2b(1)(A) through (F)	2b(1)(G)		4577
(2) Dividends:			
(A) Preferred stock.....	2b(2)(A)	0	
(B) Common stock.....	2b(2)(B)	0	
(C) Registered investment company shares (e.g. mutual funds).....	2b(2)(C)	611402	
(D) Total dividends. Add lines 2b(2)(A) , (B) , and (C)	2b(2)(D)		611402
(3) Rents.....	2b(3)		0
(4) Net gain (loss) on sale of assets:			
(A) Aggregate proceeds.....	2b(4)(A)	0	
(B) Aggregate carrying amount (see instructions).....	2b(4)(B)	0	
(C) Subtract line 2b(4)(B) from line 2b(4)(A) and enter result.....	2b(4)(C)		
(5) Unrealized appreciation (depreciation) of assets:			
(A) Real estate.....	2b(5)(A)	0	
(B) Other.....	2b(5)(B)	0	
(C) Total unrealized appreciation of assets. Add lines 2b(5)(A) and (B)	2b(5)(C)		

	(a) Amount	(b) Total
(6) Net investment gain (loss) from common/collective trusts	2b(6)	19784
(7) Net investment gain (loss) from pooled separate accounts	2b(7)	0
(8) Net investment gain (loss) from master trust investment accounts	2b(8)	0
(9) Net investment gain (loss) from 103-12 investment entities	2b(9)	0
(10) Net investment gain (loss) from registered investment companies (e.g., mutual funds)	2b(10)	1820868
c Other income	2c	0
d Total income. Add all income amounts in column (b) and enter total	2d	5036340

Expenses

e Benefit payment and payments to provide benefits:		
(1) Directly to participants or beneficiaries, including direct rollovers	2e(1)	1216956
(2) To insurance carriers for the provision of benefits	2e(2)	0
(3) Other	2e(3)	0
(4) Total benefit payments. Add lines 2e(1) through (3)	2e(4)	1216956
f Corrective distributions (see instructions)	2f	0
g Certain deemed distributions of participant loans (see instructions)	2g	0
h Interest expense	2h	0
i Administrative expenses:		
(1) Salaries and allowances	2i(1)	0
(2) Contract administrator fees	2i(2)	0
(3) Recordkeeping fees	2i(3)	24296
(4) IQPA audit fees	2i(4)	0
(5) Investment advisory and investment management fees	2i(5)	765
(6) Bank or trust company trustee/custodial fees	2i(6)	0
(7) Actuarial fees	2i(7)	0
(8) Legal fees	2i(8)	0
(9) Valuation/appraisal fees	2i(9)	0
(10) Other trustee fees and expenses	2i(10)	0
(11) Other expenses	2i(11)	0
(12) Total administrative expenses. Add lines 2i(1) through (11)	2i(12)	25061
j Total expenses. Add all expense amounts in column (b) and enter total	2j	1242017

Net Income and Reconciliation

k Net income (loss). Subtract line 2j from line 2d	2k	3794323
l Transfers of assets:		
(1) To this plan	2l(1)	0
(2) From this plan	2l(2)	0

Part III Accountant's Opinion

3 Complete lines 3a through 3c if the opinion of an independent qualified public accountant is attached to this Form 5500. Complete line 3d if an opinion is not attached.

a The attached opinion of an independent qualified public accountant for this plan is (see instructions):

(1) Unmodified (2) Qualified (3) Disclaimer (4) Adverse

b Check the appropriate box(es) to indicate whether the IQPA performed an ERISA section 103(a)(3)(C) audit. Check both boxes (1) and (2) if the audit was performed pursuant to both 29 CFR 2520.103-8 and 29 CFR 2520.103-12(d). Check box (3) if pursuant to neither.

(1) DOL Regulation 2520.103-8 (2) DOL Regulation 2520.103-12(d) (3) neither DOL Regulation 2520.103-8 nor DOL Regulation 2520.103-12(d).

c Enter the name and EIN of the accountant (or accounting firm) below:

(1) Name: WITHUM SMITH BROWN, PC

(2) EIN: 22-2027092

d The opinion of an independent qualified public accountant is **not attached** as part of Schedule H because:

(1) This form is filed for a CCT, PSA, DCG or MTIA. (2) It will be attached to the next Form 5500 pursuant to 29 CFR 2520.104-50.

Part IV Compliance Questions

4 CCTs and PSAs do not complete Part IV. MTIAs, 103-12 IEs, and GIAs do not complete lines 4a, 4e, 4f, 4g, 4h, 4k, 4m, 4n, or 5. 103-12 IEs also do not complete lines 4j and 4l. MTIAs also do not complete line 4l. DCGs do not complete lines 4e, 4f, 4k, 4l, and 5, and DCGs generally complete the rest of Part IV collectively for all plans in the DCG, except as otherwise provided (see instructions).

During the plan year:

	Yes	No	Amount
a Was there a failure to transmit to the plan any participant contributions within the time period described in 29 CFR 2510.3-102? Continue to answer "Yes" for any prior year failures until fully corrected. (See instructions and DOL's Voluntary Fiduciary Correction Program.)		X	
b Were any loans by the plan or fixed income obligations due the plan in default as of the close of the plan year or classified during the year as uncollectible? Disregard participant loans secured by participant's account balance. (Attach Schedule G (Form 5500) Part I if "Yes" is checked.)		X	
c Were any leases to which the plan was a party in default or classified during the year as uncollectible? (Attach Schedule G (Form 5500) Part II if "Yes" is checked.)		X	
d Were there any nonexempt transactions with any party-in-interest? (Do not include transactions reported on line 4a. Attach Schedule G (Form 5500) Part III if "Yes" is checked.)		X	
e Was this plan covered by a fidelity bond?	X		1000000
f Did the plan have a loss, whether or not reimbursed by the plan's fidelity bond, that was caused by fraud or dishonesty?		X	
g Did the plan hold any assets whose current value was neither readily determinable on an established market nor set by an independent third party appraiser?		X	
h Did the plan receive any noncash contributions whose value was neither readily determinable on an established market nor set by an independent third party appraiser?		X	
i Did the plan have assets held for investment? (Attach schedule(s) of assets if "Yes" is checked, and see instructions for format requirements.)	X		
j Were any plan transactions or series of transactions in excess of 5% of the current value of plan assets? (Attach schedule of transactions if "Yes" is checked and see instructions for format requirements.)		X	
k Were all the plan assets either distributed to participants or beneficiaries, transferred to another plan, or brought under the control of the PBGC?		X	
l Has the plan failed to provide any benefit when due under the plan?		X	
m If this is an individual account plan, was there a blackout period? (See instructions and 29 CFR 2520.101-3.)		X	
n If 4m was answered "Yes," check the "Yes" box if you either provided the required notice or one of the exceptions to providing the notice applied under 29 CFR 2520.101-3.			

5a Has a resolution to terminate the plan been adopted during the plan year or any prior plan year? Yes No
If "Yes," enter the amount of any plan assets that reverted to the employer this year _____.

5b If, during this plan year, any assets or liabilities were transferred from this plan to another plan(s), identify the plan(s) to which assets or liabilities were transferred. (See instructions.)

5b(1) Name of plan(s)	5b(2) EIN(s)	5b(3) PN(s)

5c Was the plan a defined benefit plan covered under the PBGC insurance program at any time during this plan year? (See ERISA section 4021 and instructions.) Yes No Not determined

If "Yes" is checked, enter the My PAA confirmation number from the PBGC premium filing for this plan year _____.

SCHEDULE R (Form 5500) <small>Department of the Treasury Internal Revenue Service</small> <small>Department of Labor Employee Benefits Security Administration</small> <small>Pension Benefit Guaranty Corporation</small>	Retirement Plan Information This schedule is required to be filed under sections 104 and 4065 of the Employee Retirement Income Security Act of 1974 (ERISA) and section 6058(a) of the Internal Revenue Code (the Code). ▶ File as an attachment to Form 5500.	<small>OMB No. 1210-0110</small> 2024 This Form is Open to Public Inspection.
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For calendar plan year 2024 or fiscal plan year beginning **01/01/2024** and ending **12/31/2024**

A Name of plan ASSEMBLY BIOSCIENCES, INC. 401(K) PLAN	B Three-digit plan number (PN) ▶	001
C Plan sponsor's name as shown on line 2a of Form 5500 ASSEMBLY BIOSCIENCES, INC.	D Employer Identification Number (EIN) 20-8729264	

Part I	Distributions
---------------	----------------------

All references to distributions relate only to payments of benefits during the plan year.

1 Total value of distributions paid in property other than in cash or the forms of property specified in the instructions.....	1	
2 Enter the EIN(s) of payor(s) who paid benefits on behalf of the plan to participants or beneficiaries during the year (if more than two, enter EINs of the two payors who paid the greatest dollar amounts of benefits): EIN(s): <u>04-6568107</u>		
Profit-sharing plans, ESOPs, and stock bonus plans, skip line 3.		
3 Number of participants (living or deceased) whose benefits were distributed in a single sum, during the plan year	3	

Part II	Funding Information (If the plan is not subject to the minimum funding requirements of section 412 of the Internal Revenue Code or ERISA section 302, skip this Part.)
----------------	---

4 Is the plan administrator making an election under Code section 412(d)(2) or ERISA section 302(d)(2)?	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> N/A
If the plan is a defined benefit plan, go to line 8.			
5 If a waiver of the minimum funding standard for a prior year is being amortized in this plan year, see instructions and enter the date of the ruling letter granting the waiver. Date: Month _____ Day _____ Year _____ If you completed line 5, complete lines 3, 9, and 10 of Schedule MB and do not complete the remainder of this schedule.			
6 a Enter the minimum required contribution for this plan year (include any prior year accumulated funding deficiency not waived)	6a		
b Enter the amount contributed by the employer to the plan for this plan year	6b		
c Subtract the amount in line 6b from the amount in line 6a. Enter the result (enter a minus sign to the left of a negative amount).....	6c		
If you completed line 6c, skip lines 8 and 9.			
7 Will the minimum funding amount reported on line 6c be met by the funding deadline?.....	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> N/A
8 If a change in actuarial cost method was made for this plan year pursuant to a revenue procedure or other authority providing automatic approval for the change or a class ruling letter, does the plan sponsor or plan administrator agree with the change?	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> N/A

Part III	Amendments
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9 If this is a defined benefit pension plan, were any amendments adopted during this plan year that increased or decreased the value of benefits? If yes, check the appropriate box. If no, check the "No" box.....	<input type="checkbox"/> Increase	<input type="checkbox"/> Decrease	<input type="checkbox"/> Both	<input type="checkbox"/> No
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Part IV	ESOPs (see instructions). If this is not a plan described under section 409(a) or 4975(e)(7) of the Internal Revenue Code, skip this Part.
----------------	---

10 Were unallocated employer securities or proceeds from the sale of unallocated securities used to repay any exempt loan?	<input type="checkbox"/> Yes	<input type="checkbox"/> No
11 a Does the ESOP hold any preferred stock?	<input type="checkbox"/> Yes	<input type="checkbox"/> No
b If the ESOP has an outstanding exempt loan with the employer as lender, is such loan part of a "back-to-back" loan? (See instructions for definition of "back-to-back" loan.)	<input type="checkbox"/> Yes	<input type="checkbox"/> No
12 Does the ESOP hold any stock that is not readily tradable on an established securities market?	<input type="checkbox"/> Yes	<input type="checkbox"/> No

Part V Additional Information for Multiemployer Defined Benefit Pension Plans

13 Enter the following information for each employer that (1) contributed more than 5% of total contributions to the plan during the plan year or (2) was one of the top-ten highest contributors (measured in dollars). See instructions. Complete as many entries as needed to report all applicable employers.

a Name of contributing employer _____

b EIN _____ **c** Dollar amount contributed by employer _____

d Date collective bargaining agreement expires (If employer contributes under more than one collective bargaining agreement, check box and see instructions regarding required attachment. Otherwise, enter the applicable date.) Month _____ Day _____ Year _____

e Contribution rate information (If more than one rate applies, check this box and see instructions regarding required attachment. Otherwise, complete lines 13e(1) and 13e(2).)

(1) Contribution rate (in dollars and cents) _____

(2) Base unit measure: Hourly Weekly Unit of production Other (specify): _____

a Name of contributing employer _____

b EIN _____ **c** Dollar amount contributed by employer _____

d Date collective bargaining agreement expires (If employer contributes under more than one collective bargaining agreement, check box and see instructions regarding required attachment. Otherwise, enter the applicable date.) Month _____ Day _____ Year _____

e Contribution rate information (If more than one rate applies, check this box and see instructions regarding required attachment. Otherwise, complete lines 13e(1) and 13e(2).)

(1) Contribution rate (in dollars and cents) _____

(2) Base unit measure: Hourly Weekly Unit of production Other (specify): _____

a Name of contributing employer _____

b EIN _____ **c** Dollar amount contributed by employer _____

d Date collective bargaining agreement expires (If employer contributes under more than one collective bargaining agreement, check box and see instructions regarding required attachment. Otherwise, enter the applicable date.) Month _____ Day _____ Year _____

e Contribution rate information (If more than one rate applies, check this box and see instructions regarding required attachment. Otherwise, complete lines 13e(1) and 13e(2).)

(1) Contribution rate (in dollars and cents) _____

(2) Base unit measure: Hourly Weekly Unit of production Other (specify): _____

a Name of contributing employer _____

b EIN _____ **c** Dollar amount contributed by employer _____

d Date collective bargaining agreement expires (If employer contributes under more than one collective bargaining agreement, check box and see instructions regarding required attachment. Otherwise, enter the applicable date.) Month _____ Day _____ Year _____

e Contribution rate information (If more than one rate applies, check this box and see instructions regarding required attachment. Otherwise, complete lines 13e(1) and 13e(2).)

(1) Contribution rate (in dollars and cents) _____

(2) Base unit measure: Hourly Weekly Unit of production Other (specify): _____

a Name of contributing employer _____

b EIN _____ **c** Dollar amount contributed by employer _____

d Date collective bargaining agreement expires (If employer contributes under more than one collective bargaining agreement, check box and see instructions regarding required attachment. Otherwise, enter the applicable date.) Month _____ Day _____ Year _____

e Contribution rate information (If more than one rate applies, check this box and see instructions regarding required attachment. Otherwise, complete lines 13e(1) and 13e(2).)

(1) Contribution rate (in dollars and cents) _____

(2) Base unit measure: Hourly Weekly Unit of production Other (specify): _____

a Name of contributing employer _____

b EIN _____ **c** Dollar amount contributed by employer _____

d Date collective bargaining agreement expires (If employer contributes under more than one collective bargaining agreement, check box and see instructions regarding required attachment. Otherwise, enter the applicable date.) Month _____ Day _____ Year _____

e Contribution rate information (If more than one rate applies, check this box and see instructions regarding required attachment. Otherwise, complete lines 13e(1) and 13e(2).)

(1) Contribution rate (in dollars and cents) _____

(2) Base unit measure: Hourly Weekly Unit of production Other (specify): _____

14 Enter the number of deferred vested and retired participants (inactive participants), as of the beginning of the plan year, whose contributing employer is no longer making contributions to the plan for:

a The current plan year. Check the box to indicate the counting method used to determine the number of inactive participants: <input type="checkbox"/> last contributing employer <input type="checkbox"/> alternative <input type="checkbox"/> reasonable approximation (see instructions for required attachment).....	14a	
b The plan year immediately preceding the current plan year. <input type="checkbox"/> Check the box if the number reported is a change from what was previously reported (see instructions for required attachment).....	14b	
c The second preceding plan year. <input type="checkbox"/> Check the box if the number reported is a change from what was previously reported (see instructions for required attachment).....	14c	

15 Enter the ratio of the number of participants under the plan on whose behalf no employer had an obligation to make an employer contribution during the current plan year to:

a The corresponding number for the plan year immediately preceding the current plan year	15a	
b The corresponding number for the second preceding plan year	15b	

16 Information with respect to any employers who withdrew from the plan during the preceding plan year:

a Enter the number of employers who withdrew during the preceding plan year	16a	
b If line 16a is greater than 0, enter the aggregate amount of withdrawal liability assessed or estimated to be assessed against such withdrawn employers.....	16b	

17 If assets and liabilities from another plan have been transferred to or merged with this plan during the plan year, check box and see instructions regarding supplemental information to be included as an attachment

Part VI Additional Information for Single-Employer and Multiemployer Defined Benefit Pension Plans

18 If any liabilities to participants or their beneficiaries under the plan as of the end of the plan year consist (in whole or in part) of liabilities to such participants and beneficiaries under two or more pension plans as of immediately before such plan year, check box and see instructions regarding supplemental information to be included as an attachment

19 If the total number of participants is 1,000 or more, complete lines (a) and (b):

a Enter the percentage of plan assets held as:
 Public Equity: _____% Private Equity: _____% Investment-Grade Debt and Interest Rate Hedging Assets: _____%
 High-Yield Debt: _____% Real Assets: _____% Cash or Cash Equivalents: _____% Other: _____%

b Provide the average duration of the Investment-Grade Debt and Interest Rate Hedging Assets:
 0-5 years 5-10 years 10-15 years 15 years or more

20 PBGC missed contribution reporting requirements. If this is a multiemployer plan or a single-employer plan that is not covered by PBGC, skip line 20.

a Is the amount of unpaid minimum required contributions for all years from Schedule SB (Form 5500) line 40 greater than zero? Yes No

b If line 20a is "Yes," has PBGC been notified as required by ERISA sections 4043(c)(5) and/or 303(k)(4)? Check the applicable box:
 Yes.
 No. Reporting was waived under 29 CFR 4043.25(c)(2) because contributions equal to or exceeding the unpaid minimum required contribution were made by the 30th day after the due date.
 No. The 30-day period referenced in 29 CFR 4043.25(c)(2) has not yet ended, and the sponsor intends to make a contribution equal to or exceeding the unpaid minimum required contribution by the 30th day after the due date.
 No. Other. Provide explanation: _____

Part VII IRS Compliance Questions

21a Does the plan satisfy the coverage and nondiscrimination tests of Code sections 410(b) and 401(a)(4) by combining this plan with any other plans under the permissive aggregation rules? Yes No

21b If this is a Code section 401(k) plan, check all boxes that apply to indicate how the plan is intended to satisfy the nondiscrimination requirements for employee deferrals and employer matching contributions (as applicable) under Code sections 401(k)(3) and 401(m)(2).
 Design-based safe harbor method
 "Prior year" ADP test
 "Current year" ADP test
 N/A

22 If the plan sponsor is an adopter of a pre-approved plan that received a favorable IRS Opinion Letter, enter the date of the Opinion Letter 06 / 30 / 2020 (MM/DD/YYYY) and the Opinion Letter serial number Q702438A.

**Assembly Biosciences, Inc. 401(k) Plan
Financial Statements
December 31, 2024 and 2023
With Independent Auditor's Report**

Assembly Biosciences, Inc. 401(k) Plan
Table of Contents
December 31, 2024 and 2023

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Independent Auditor's Report

To the Plan Administrator of
Assembly Biosciences, Inc. 401(k) Plan:

Scope and Nature of the ERISA Section 103(a)(3)(C) Audit

We have performed audits of the financial statements of Assembly Biosciences, Inc. 401(k) Plan, an employee benefit plan subject to the Employee Retirement Income Security Act of 1974 ("ERISA"), as permitted by ERISA Section 103(a)(3)(C) ("ERISA Section 103(a)(3)(C) audit"). The financial statements comprise the statements of net assets available for benefits as of December 31, 2024 and 2023, and the related statement of changes in net assets available for benefits for the year ended December 31, 2024, and the related notes to the financial statements.

Management, having determined it is permissible in the circumstances, has elected to have the audits of Assembly Biosciences, Inc. 401(k) Plan's financial statements performed in accordance with ERISA Section 103(a)(3)(C) pursuant to 29 CFR 2520.103-8 of the Department of Labor's ("DOL") Rules and Regulations for Reporting and Disclosure under ERISA. As permitted by ERISA Section 103(a)(3)(C), our audits need not extend to any statements or information related to assets held for investment of the plan ("investment information") by a bank or similar institution or insurance carrier that is regulated, supervised, and subject to periodic examination by a state or federal agency, provided that the statements or information regarding assets so held are prepared and certified to by the bank or similar institution or insurance carrier in accordance with 29 CFR 2520.103-5 of the DOL's Rules and Regulations for Reporting and Disclosure under ERISA ("qualified institution").

Management has obtained certifications from a qualified institution as of December 31, 2024 and 2023, and for the year ended December 31, 2024, stating that the certified investment information, as described in Note 6 to the financial statements, is complete and accurate.

Opinion

In our opinion, based on our audits and on the procedures performed as described in the Auditor's Responsibilities for the Audit of the Financial Statements section:

- The amounts and disclosures in the accompanying financial statements, other than those agreed to or derived from the certified investment information, are presented fairly, in all material respects, in accordance with accounting principles generally accepted in the United States of America.
- The information in the accompanying financial statements related to assets held by and certified to by a qualified institution agrees to, or is derived from, in all material respects, the information prepared and certified by an institution that management determined meets the requirements of ERISA Section 103(a)(3)(C).

Basis for Opinion

We conducted our audits in accordance with auditing standards generally accepted in the United States of America ("GAAS"). Our responsibilities under those standards are further described in the Auditor's Responsibilities for the Audit of the Financial Statements section of our report. We are required to be independent of Assembly Biosciences, Inc. 401(k) Plan and to meet our other ethical responsibilities, in accordance with the relevant ethical requirements relating to our audits. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our ERISA Section 103(a)(3)(C) audit opinion.

Responsibilities of Management for the Financial Statements

Management is responsible for the preparation and fair presentation of the financial statements in accordance with accounting principles generally accepted in the United States of America, and for the design, implementation, and maintenance of internal control relevant to the preparation and fair presentation of financial statements that are free from material misstatement, whether due to fraud or error. Management's election of the ERISA Section 103(a)(3)(C) audit does not affect management's responsibility for the financial statements.

In preparing the financial statements, management is required to evaluate whether there are conditions or events, considered in the aggregate, that raise substantial doubt about Assembly Biosciences, Inc. 401(k) Plan's ability to continue as a going concern for at least one year following the date that the financial statements are available to be issued.

Management is also responsible for maintaining a current plan instrument, including all plan amendments, administering the plan, and determining that the plan's transactions that are presented and disclosed in the financial statements are in conformity with the plan's provisions, including maintaining sufficient records with respect to each of the participants, to determine the benefits due or which may become due to such participants.

Auditor's Responsibilities for the Audit of the Financial Statements

Except as described in the Scope and Nature of the ERISA Section 103(a)(3)(C) Audit section of our report, our objectives are to obtain reasonable assurance about whether the financial statements as a whole are free from material misstatement, whether due to fraud or error, and to issue an auditor's report that includes our opinion. Reasonable assurance is a high level of assurance but is not absolute assurance and therefore is not a guarantee that an audit conducted in accordance with GAAS will always detect a material misstatement when it exists. The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal control. Misstatements are considered material if there is a substantial likelihood that, individually or in the aggregate, they would influence the judgment made by a reasonable user based on the financial statements.

In performing an audit in accordance with GAAS, we:

- Exercise professional judgment and maintain professional skepticism throughout the audit.
- Identify and assess the risks of material misstatement of the financial statements, whether due to fraud or error, and design and perform audit procedures responsive to those risks. Such procedures include examining, on a test basis, evidence regarding the amounts and disclosures in the financial statements.
- Obtain an understanding of internal control relevant to the audit in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of Assembly Biosciences, Inc. 401(k) Plan's internal control. Accordingly, no such opinion is expressed.
- Evaluate the appropriateness of accounting policies used and the reasonableness of significant accounting estimates made by management, as well as evaluate the overall presentation of the financial statements.
- Conclude whether, in our judgment, there are conditions or events, considered in the aggregate, that raise substantial doubt about Assembly Biosciences, Inc. 401(k) Plan's ability to continue as a going concern for a reasonable period of time.

Our audits did not extend to the certified investment information, except for obtaining and reading the certification, comparing the certified investment information with the related information presented and disclosed in the financial statements, and reading the disclosures relating to the certified investment information to assess whether they are in accordance with the presentation and disclosure requirements of accounting principles generally accepted in the United States of America.

Accordingly, the objective of an ERISA Section 103(a)(3)(C) audit is not to express an opinion about whether the financial statements as a whole are presented fairly, in all material respects, in accordance with accounting principles generally accepted in the United States of America.

We are required to communicate with those charged with governance regarding, among other matters, the planned scope and timing of the audit, significant audit findings, and certain internal control-related matters that we identified during the audit.

Other Matter - Supplemental Schedule Required by ERISA

The supplemental schedule, Schedule H, Line 4i - Schedule of Assets (Held at End of Year), as of December 31, 2024 is presented for purposes of additional analysis and is not a required part of the financial statements but is supplementary information required by the DOL's Rules and Regulations for Reporting and Disclosure under ERISA. Such information is the responsibility of management and was derived from and relates directly to the underlying accounting and other records used to prepare the financial statements. The information included in the supplemental schedule, other than that agreed to or derived from the certified investment information, has been subjected to auditing procedures applied in the audits of the financial statements and certain additional procedures, including comparing and reconciling such information directly to the underlying accounting and other records used to prepare the financial statements or to the financial statements themselves, and other additional procedures in accordance with GAAS. For information included in the supplemental schedule that agreed to or is derived from the certified investment information, we compared such information to the related certified investment information.

In forming our opinion on the supplemental schedule, we evaluated whether the supplemental schedule, other than the information agreed to or derived from the certified investment information, including its form and content, is presented in conformity with the DOL's Rules and Regulations for Reporting and Disclosure under ERISA.

In our opinion:

- The form and content of the supplemental schedule, other than the information in the supplemental schedule that agreed to or is derived from the certified investment information, are presented, in all material respects, in conformity with the DOL's Rules and Regulations for Reporting and Disclosure under ERISA.
- The information in the supplemental schedule related to assets held by and certified to by a qualified institution agrees to, or is derived from, in all material respects, the information prepared and certified by an institution that management determined meets the requirements of ERISA Section 103(a)(3)(C).

Withum Smith & Brown, PC

September 23, 2025

**Assembly Biosciences, Inc. 401(k) Plan
Statements of Net Assets Available for Benefits
December 31, 2024 and 2023**

	<u>2024</u>	<u>2023</u>
Assets		
Investments at fair value		
Interest bearing cash	\$ 5,205	\$ 2,985
Mutual funds	17,739,680	13,923,991
Common collective trusts	371,093	473,325
Total investments at fair value	<u>18,115,978</u>	<u>14,400,301</u>
Receivables		
Notes receivable from participants	90,730	12,084
Employer contribution receivables	81,901	86,671
Total receivables	<u>172,631</u>	<u>98,755</u>
Total assets available for benefits	<u>\$ 18,288,609</u>	<u>\$ 14,499,056</u>

The Notes to Financial Statements are an integral part of these statements.

**Assembly Biosciences, Inc. 401(k) Plan
Statement of Changes in Net Assets Available for Benefits
Year Ended December 31, 2024**

Additions

Investment income

Interest and dividends	\$ 611,618
Net appreciation in fair value of investments	1,840,656

Total investment income	<u>2,452,274</u>
--------------------------------	------------------

Interest income on notes receivable from participants	4,360
---	-------

Contributions

Employer contributions	693,372
Participant contributions	1,760,866
Rollovers	120,701

Total contributions	<u>2,574,939</u>
----------------------------	------------------

Total additions	<u>5,031,573</u>
------------------------	------------------

Deductions

Benefits paid to participants	1,216,956
Administrative expenses	25,064

Total deductions	<u>1,242,020</u>
-------------------------	------------------

Net change in net assets available for benefits	3,789,553
--	-----------

Net assets available for benefits

Beginning of year	14,499,056
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End of year	<u><u>\$ 18,288,609</u></u>
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The Notes to Financial Statements are an integral part of this statement.

Assembly Biosciences, Inc. 401(k) Plan Notes to Financial Statements December 31, 2024 and 2023

1. Description of Plan

The following description of Assembly Biosciences, Inc. 401(k) Plan (the "Plan") provides only general information. Participants should refer to the Plan document for a more complete description of the Plan's provisions.

General

The Plan is a defined contribution plan established effective January 1, 2018, as restated May 9, 2022. The Plan requires a participant to be employed as of year end to be eligible to receive employer contributions. The Plan is subject to the provisions of the Employee Retirement Income Security Act of 1974, as amended ("ERISA").

Eligibility

All non-excluded employees age 21 years or older are eligible to make elective deferrals and receive matching contributions. Employees are eligible to receive non-elective profit sharing upon completion of one year of service. Excluded employees are employees covered by a collective bargaining agreement and nonresident aliens. The Plan Administrator is responsible for oversight of the Plan and determines the appropriateness of the Plan's investment offerings and monitors investment performance.

Safe Harbor Employer Contributions

Assembly Biosciences, Inc. (the "Company") provides a safe harbor matching contribution whereby participant contributions are matched 100% up to 4% of the participant's eligible compensation. The Company has the option to provide additional matching and/or profit-sharing contributions at their discretion each Plan year which would be allocated to all eligible participants in a uniform manner. For the year ended December 31, 2024, there were no discretionary contributions to the Plan. The Plan requires a participant to be employed as of year end to be eligible to receive employer contributions.

Employee Contributions

Each year, participants may contribute up to 92% of pretax annual compensation, as defined in the plan document, up to the maximum limits of the Internal Revenue Code ("IRC"). Participants also may designate all or a portion of their deferral contributions as after-tax contributions into a Roth account. Participants who have attained age 50 before the end of the plan year are eligible to make catch-up contributions. Participants also may contribute amounts representing distributions from other qualified defined benefit or defined contribution plans (rollover). Participants direct the investment of their contributions into various investment options offered by the Plan.

Contributions are subject to certain Internal Revenue Service ("IRS") limitations.

Participant Accounts

Each participant's account is credited with the participant's contributions, rollovers and an allocation of (a) the Company's matching contributions, (b) the Company's profit-sharing contribution and (c) Plan earnings and charged with an allocation of (a) Plan losses and (b) administrative expenses. Allocations are based on participant earnings, account balances or specific participant transactions, as defined. The benefit to which a participant is entitled is the benefit that can be provided from the participant's vested account.

Vesting

Participants are immediately vested in their elective deferral, Roth deferrals, rollover contributions, employer's matching contributions and actual earnings and losses thereon. Vesting in the Company's profit-sharing contributions is based on years of continuous service, as follows: less than 2 years- 0%; 2 years - 20%; 3 years - 40%; 4 years - 60%; 5 years - 80%; and 6 years - 100%. A participant becomes fully vested regardless of the vesting schedule in case of death or permanent disability.

Notes Receivable From Participants

Participants may borrow from their fund accounts a minimum of \$1,000 up to a maximum equal to the lesser of \$50,000 or 50% of their vested account balance. The loans are secured by the balance in the participant's account. The loan interest rate, determined annually, is set at a reasonable rate of interest as determined by the Plan Administrator based on the prevailing interest rates charged by persons in the business of lending money for loans which would be made under similar circumstances as defined. Principal and interest are paid ratably through monthly payroll deductions. Terms range up to 5 years or greater for the purchase of a primary residence.

Assembly Biosciences, Inc. 401(k) Plan Notes to Financial Statements December 31, 2024 and 2023

Payment of Benefits

Upon termination of service, upon attainment of age 59 ½, death, disability, or retirement, a participant may elect to receive an amount equal to the value of the participant's vested interest in his or her account in a lump-sum payment in cash or in installment payments. If the benefit amount is \$5,000 or less, the Plan shall make a lump-sum distribution without the participant's consent. Hardship distributions are not permitted under the Plan

Forfeited Accounts

Any forfeiture will first be used to reduce administrative expenses; thereafter, the remainder is used to reduce employer contributions. There was no forfeitures balance at December 31, 2024 and 2023. There were no forfeitures used during the plan year to reduce admin expenses or employer contributions for the year ended December 31, 2024.

2. Summary of Accounting Policies

Basis of Accounting

The financial statements of the Plan are prepared on the accrual basis of accounting in accordance with accounting principles generally accepted in the United States of America ("U.S. GAAP").

Use of Estimates

The preparation of financial statements in accordance with U.S. GAAP requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities and changes therein and disclosure of contingent assets and liabilities. Actual results could differ from those estimates.

Investment Valuation and Income Recognition

Investments are reported at fair value or net asset value ("NAV"), which approximates fair value. Fair value is the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date. The Plan's investment committee determines the Plan's valuation policies utilizing information provided by the investment advisors, custodians, and insurance company, as applicable. See Note 4 for discussion of fair value measurements.

Purchases and sales of securities are recorded on a trade-date basis. Interest income is recorded on the accrual basis. Dividends are recorded on the ex-dividend date. Net appreciation includes the Plan's gains and losses on investments bought and sold as well as held during the year.

Notes Receivable from Participants

Notes receivable from participants are measured at their unpaid principal balance plus any accrued. Interest income is recorded on the accrual basis. Related fees are recorded as administrative expenses and are expensed when they are incurred. No allowance for credit losses has been recorded as of December 31, 2024. If a participant ceases to make loan repayments and the Plan Administrator deems the loan to be in default, the participant loan balance is reduced, and a benefit payment is recorded.

Payment of Benefits

Benefits are recorded when paid.

Administrative Expenses

Certain expenses of maintaining the Plan are paid by the Plan, unless otherwise paid by the Company. Expenses that are paid by the Company are excluded from these financial statements. Fees related to the administration of notes receivable from participants are charged directly to the participant's account and are included in administrative expenses. Investment-related expenses are included in net appreciation in fair value of investments and not readily determinable. Administrative expenses paid by the Plan totaled \$25,064 for the year ended December 31, 2024.

Subsequent Events

The Plan's management evaluated events that occurred after December 31, 2024 through September 23, 2025, the date when the financial statements were available to be issued and noted there was a change in payroll system.

Assembly Biosciences, Inc. 401(k) Plan

Notes to Financial Statements

December 31, 2024 and 2023

3. Risks and Uncertainties

The Plan invests in investment securities. Investment securities are exposed to various risks such as interest rate, market volatility, and credit risks. Due to the level of risk associated with certain investment securities, it is at least reasonably possible that changes in the values of investment securities will occur in the near term and that such changes could materially affect participants' account balances and the amounts reported in the statements of net assets available for benefits. As of December 31, 2024 and 2023, three investments represented a concentration of greater than 10% of the Plan's net assets available for benefits.

4. Fair Value Measurements

The framework for measuring fair value provides a fair value hierarchy that prioritizes the inputs to valuation techniques used to measure fair value. The hierarchy gives the highest priority to unadjusted quoted prices in active markets for identical assets or liabilities (Level 1) and the lowest priority to unobservable inputs (Level 3). The three levels of the fair value hierarchy under Financial Accounting Standards Board ("FASB") Accounting Standards Codification ("ASC") 820, *Fair Value Measurement*, are described as follows:

Level 1 - Inputs to the valuation technique are unadjusted quoted prices for identical assets or liabilities in active markets that the Plan has the ability to access.

Level 2 - Inputs to the valuation technique include:

- quoted prices for similar assets or liabilities in active markets;
- quoted prices for identical or similar assets or liabilities in inactive markets;
- inputs other than quoted prices that are observable for the asset or liability; and
- inputs that are derived principally from or corroborated by observable market data by correlation or other means.

If the asset or liability has a specified (contractual) term, the Level 2 input must be observable for substantially the full term of the asset or liability.

Level 3 - Inputs to the valuation technique are unobservable and significant to the fair value measurement.

The asset's or liability's fair value measurement level within the fair value hierarchy is based on the lowest level of any input that is significant to the fair value measurement. Valuation techniques maximize the use of relevant observable inputs and minimize the use of unobservable inputs.

The following is a description of the valuation techniques used for assets measured at fair value. There have been no changes in the techniques used as of December 31, 2024 and 2023.

Interest-Bearing Cash: These investments are stated at cost, which approximates fair value.

Mutual Funds: Valued at the daily closing price as reported by the fund. Mutual funds held by the Plan are open-end mutual funds that are registered with the U.S. Securities and Exchange Commission. These funds are required to publish their daily net asset value and to transact at that price. The mutual funds held by the Plan are deemed to be actively traded.

Investments Measured at Net Asset Value: Consisting of common-collective trusts, valued at the net asset value ("NAV") of units of a bank collective trust. NAV, as provided by the trustee, is used as a practical expedient to estimate fair value. NAV is based on the fair value of the underlying investments held by the fund less its liabilities. This practical expedient is not used when it is determined to be probable that the fund will sell the investment for an amount different than the reported NAV. Participant transactions (purchases and sales) may occur daily. Were the Plan to initiate a full redemption of the collective trust, the investment advisor reserves the right to temporarily delay withdrawal from the trust in order to ensure that securities liquidations will be carried out in an orderly business manner.

The methods described above may produce a fair value calculation that may not be indicative of net realizable value or reflective of future fair values. Furthermore, while the Plan believes its evaluation methods are appropriate and consistent with other market participants, the use of different methodologies or assumptions to determine the fair value of certain financial instruments could result in a different fair value measurement at the reporting date.

**Assembly Biosciences, Inc. 401(k) Plan
Notes to Financial Statements
December 31, 2024 and 2023**

The following tables set forth by level, within the fair value hierarchy, the Plan's assets at fair value as of December 31, 2024 and 2023:

	December 31, 2024			
	Level 1	Level 2	Level 3	Total
Mutual funds	\$ 17,739,680	\$ -	\$ -	\$ 17,739,680
Interest bearing cash	5,205	-	-	5,205
Total assets in the fair value hierarchy	17,744,885	-	-	17,744,885
Investments valued at net asset value (a)	371,093	-	-	371,093
Total investments at fair value	\$ 18,115,978	\$ -	\$ -	\$ 18,115,978

	December 31, 2023			
	Level 1	Level 2	Level 3	Total
Mutual funds	\$ 13,923,991	\$ -	\$ -	\$ 13,923,991
Interest bearing cash	2,985	-	-	2,985
Total assets in the fair value hierarchy	13,926,976	-	-	13,926,976
Investments valued at net asset value (a)	473,325	-	-	473,325
Total investments at fair value	\$ 14,400,301	\$ -	\$ -	\$ 14,400,301

(a) In accordance with FASB ASC 820, certain investments that were measured at net asset value per share (or its equivalent) have not been classified in the fair value hierarchy. The fair value amounts presented in this table are intended to permit reconciliation of the fair value hierarchy to the line items presented in the statement of net assets available for benefits.

5. Plan Termination

Although it has not expressed any intent to do so, the Company has the right under the Plan to discontinue its contributions at any time and to terminate the Plan subject to the provisions of ERISA. In the event of Plan termination, participants would become 100% vested in their employer contributions.

6. Information Certified by Custodian

The Plan administrator has elected the method of compliance permitted by 29 CFR 2520.103-8 of the Department of Labor's Rules and Regulations for Reporting and Disclosure under ERISA for 2024 and 2023. Accordingly, Fidelity Management Trust Company, the Custodian of the Plan, has certified the completeness and accuracy of all investments and notes receivable from participants reported in the accompanying statements of net assets available for benefits as of December 31, 2024 and 2023, Schedule H, Line 4i - Schedule of Assets (Held at End of Year) as of December 31, 2024, and the related investment activity and interest income on notes receivable from participants reported in the statement of changes in net assets available for benefits for the year ended December 31, 2024.

7. Tax Status

The Plan adopted a pre-approved plan offered by FMR LLC. The pre-approved plan received an IRS Opinion Letter dated June 30, 2020, that the Plan and related trust are designed in accordance with the applicable sections of the Internal Revenue Code ("IRC"). Although the Plan has been amended since receiving the IRS Opinion Letter, the plan administrator believes that the Plan is designed, and is currently being operated, in compliance with the applicable requirements of the IRC.

**Assembly Biosciences, Inc. 401(k) Plan
Notes to Financial Statements
December 31, 2024 and 2023**

The plan administrator has analyzed the tax positions taken by the Plan, and has concluded that as of December 31, 2024 and 2023, there are no uncertain tax positions taken or expected to be taken that would require recognition of a liability (or asset) or disclosure in the financial statements. The Plan is subject to routine audits by taxing jurisdictions; however, there are currently no audits for any tax periods in progress.

8. Related-Party and Party-in-Interest Transactions

Certain Plan investments are managed by the custodian, and therefore, these transactions qualify as party-in-interest transactions.

Fees incurred by the Plan for the investment management services are included in net appreciation in the fair value of the investment, as they are paid through revenue sharing, rather than a direct payment. Fidelity Management Trust Company receives revenue from investment fund service providers for services Fidelity Management Trust Company provides to the funds. This revenue is used to offset certain amounts owed to Fidelity Management Trust Company for its administrative services to the Plan. If the revenue received by Fidelity Management Trust Company from such investment fund service providers exceeds the amount owed for its services, Fidelity Management Trust Company remits the excess to the Plan's trust on a quarterly basis. The Plan or Plan sponsor may make a payment to Fidelity Management Trust Company for administrative expenses not covered by revenue sharing.

Additionally, the Plan issues loans to participants, which are secured by the participants' account balances. These transactions qualify as party-in-interest transactions.

Certain administrative functions of the Plan are performed by officers or employees of the Company. No such officer or employee receives compensation from the Plan.

9. Reconciliation of Financial Statements to Form 5500

The Form 5500 was prepared on the cash basis of accounting. The following is a reconciliation of net assets available for benefits per the financial statements to the Form 5500 for the years ended December 31, 2024 and 2023:

	<u>2024</u>	<u>2023</u>
Net assets available for benefits per the financial statements	\$ 18,288,609	\$ 14,499,056
Less: contribution receivables from employer	(81,901)	(86,671)
Net assets available for benefits per Form 5500	<u>\$ 18,206,708</u>	<u>\$ 14,412,385</u>

The following is a reconciliation of the increase (decrease) in net assets per the financial statements for the year ended December 31, 2024, to Form 5500:

Net change in net assets available for benefits per the financial statements	\$ 3,789,553
Less: 2024 contributions receivable from employer	(81,901)
Add: 2023 contributions receivable from employer	86,671
Change in net assets per Form 5500	<u>\$ 3,794,323</u>

Supplementary Information

Assembly Biosciences, Inc. 401(k) Plan
Schedule H, Line 4i - Schedule of Assets (Held at End of Year)
EIN: 20-8729264 Plan Number: 001
December 31, 2024

(a)	(b) Identity of Issue, Borrower, Lessor, or Similar Party	(c) Description of Investment Including Maturity Date, Rate of Interest, Collateral, Par or Maturity Value	(d) Cost**	(e) Current Value
Mutual funds				
	American Funds	EuroPacific Growth Fund	\$ -	\$ 362,385
	DFA	Emerging Markets Core Equity Fund	-	97,883
	DFA	Real Estate Estate Securities Fund	-	206,163
*	Fidelity	500 Index Fund	-	3,514,845
*	Fidelity	Freedom Index 2015 Fund	-	12,749
*	Fidelity	Freedom Index 2020 Fund	-	136,270
*	Fidelity	Freedom Index 2025 Fund	-	198,569
*	Fidelity	Freedom Index 2030 Fund	-	702,764
*	Fidelity	Freedom Index 2035 Fund	-	378,386
*	Fidelity	Freedom Index 2040 Fund	-	3,143,838
*	Fidelity	Freedom Index 2045 Fund	-	1,281,829
*	Fidelity	Freedom Index 2050 Fund	-	974,523
*	Fidelity	Freedom Index 2055 Fund	-	151,749
*	Fidelity	Freedom Index 2060 Fund	-	236,978
*	Fidelity	Freedom Index Income Fund	-	45,653
*	Fidelity	International Index Fund	-	90,546
*	Fidelity	Mid Cap Index Fund	-	486,723
*	Fidelity	Small Cap Index Fund	-	459,463
*	Fidelity	Total Bond Fund	-	524,996
*	Fidelity	US Sustainability Index Fund	-	316,149
	Lord Abbott	Short Duration Income Fund	-	376,237
	PIMCO	Income Fund	-	565,660
	T. Rowe Price	Blue Chip Growth Fund	-	2,275,610
*	Fidelity	FDM IDX 2065 IPR	-	6,744
	Dodge & Cox	Stock Fund	-	1,192,968
	Total Mutual Funds		-	17,739,680
	Putnam	Stable Value Fund	-	371,093
		Interest Bearing Cash	-	5,205
*	Notes receivable from participants	Interest rates at 4.25% - 9.5% maturing through October 2029	-	90,730
	Total assets held for investment purposes at end of year		\$ -	\$ 18,206,708

*Denotes a party-in-interest.

**Cost information is omitted as all investments are participant directed.

See Independent Auditor's Report.

Assembly Biosciences, Inc. 401(k) Plan
Schedule H, Line 4i - Schedule of Assets (Held at End of Year)
EIN: 20-8729264 Plan Number: 001
December 31, 2024

(a)	(b) Identity of Issue, Borrower, Lessor, or Similar Party	(c) Description of Investment Including Maturity Date, Rate of Interest, Collateral, Par or Maturity Value	(d) Cost**	(e) Current Value
Mutual funds				
	American Funds	EuroPacific Growth Fund	\$ - \$	362,385
	DFA	Emerging Markets Core Equity Fund	-	97,883
	DFA	Real Estate Estate Securities Fund	-	206,163
*	Fidelity	500 Index Fund	-	3,514,845
*	Fidelity	Freedom Index 2015 Fund	-	12,749
*	Fidelity	Freedom Index 2020 Fund	-	136,270
*	Fidelity	Freedom Index 2025 Fund	-	198,569
*	Fidelity	Freedom Index 2030 Fund	-	702,764
*	Fidelity	Freedom Index 2035 Fund	-	378,386
*	Fidelity	Freedom Index 2040 Fund	-	3,143,838
*	Fidelity	Freedom Index 2045 Fund	-	1,281,829
*	Fidelity	Freedom Index 2050 Fund	-	974,523
*	Fidelity	Freedom Index 2055 Fund	-	151,749
*	Fidelity	Freedom Index 2060 Fund	-	236,978
*	Fidelity	Freedom Index Income Fund	-	45,653
*	Fidelity	International Index Fund	-	90,546
*	Fidelity	Mid Cap Index Fund	-	486,723
*	Fidelity	Small Cap Index Fund	-	459,463
*	Fidelity	Total Bond Fund	-	524,996
*	Fidelity	US Sustainability Index Fund	-	316,149
	Lord Abbott	Short Duration Income Fund	-	376,237
	PIMCO	Income Fund	-	565,660
	T. Rowe Price	Blue Chip Growth Fund	-	2,275,610
*	Fidelity	FDM IDX 2065 IPR	-	6,744
	Dodge & Cox	Stock Fund	-	1,192,968
	Total Mutual Funds		-	17,739,680
	Putnam	Stable Value Fund	-	371,093
		Interest Bearing Cash	-	5,205
*	Notes receivable from participants	Interest rates at 4.25% - 9.5% maturing through October 2029	-	90,730
	Total assets held for investment purposes at end of year		\$ - \$	18,206,708

*Denotes a party-in-interest.

**Cost information is omitted as all investments are participant directed.