

Form 5500 Department of the Treasury Internal Revenue Service Department of Labor Employee Benefits Security Administration Pension Benefit Guaranty Corporation	Annual Return/Report of Employee Benefit Plan 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.	OMB Nos. 1210-0110 1210-0089 2022 This Form is Open to Public Inspection
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Part I	Annual Report Identification Information
For calendar plan year 2022 or fiscal plan year beginning <u>01/01/2022</u> and ending <u>12/31/2022</u>	
A This return/report is for:	☐ a multiemployer plan ☐ a multiple-employer plan (Filers checking this box must attach a list of participating employer information in accordance with the form instructions.) ☒ a single-employer plan ☐ a DFE (specify) ____
B This return/report is:	☐ the first return/report ☐ the final return/report ☐ an amended return/report ☐ a short plan year return/report (less than 12 months)
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 (enter description)
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 <u>SPARK THERAPEUTICS, INC. 401(K) PLAN</u>	1b Three-digit plan number (PN) ▶	<u>001</u>
2a Plan sponsor's name (employer, if for a single-employer plan) Mailing address (include room, apt., suite no. and street, or P.O. Box) City or town, state or province, country, and ZIP or foreign postal code (if foreign, see instructions) <u>SPARK THERAPEUTICS, INC.</u> <u>3737 MARKET STREET, SUITE 1300</u> <u>PHILADELPHIA, PA 19104</u>	1c Effective date of plan <u>01/01/2014</u>	2b Employer Identification Number (EIN) <u>46-2654405</u>
	2c Plan Sponsor's telephone number <u>215-220-9300</u>	2d Business code (see instructions) <u>621111</u>

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.

SIGN HERE	Filed with authorized/valid electronic signature.	10/12/2023	BLAIR DAVIS
	Signature of plan administrator	Date	Enter name of individual signing as plan administrator
SIGN HERE			
	Signature of employer/plan sponsor	Date	Enter name of individual signing as employer or plan sponsor
SIGN HERE			
	Signature of DFE	Date	Enter name of individual signing as DFE

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

Form 5500 (2022)
v. 220413

3a Plan administrator's name and address ☒ 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		5 966
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		6a(1) 822
a(2) Total number of active participants at the end of the plan year		6a(2) 892
b Retired or separated participants receiving benefits		6b 1
c Other retired or separated participants entitled to future benefits.....		6c 192
d Subtotal. Add lines 6a(2) , 6b , and 6c		6d 1085
e Deceased participants whose beneficiaries are receiving or are entitled to receive benefits.		6e 0
f Total. Add lines 6d and 6e		6f 1085
g Number of participants with account balances as of the end of the plan year (only defined contribution plans complete this item).....		6g 1078
h Number of participants who terminated employment during the plan year with accrued benefits that were less than 100% vested.....		6h 62
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: 2G 2J 2K 3H 2S 2T 2E 2F 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) (1) ☐ Insurance (2) ☐ Code section 412(e)(3) insurance contracts (3) ☒ Trust (4) ☐ General assets of the sponsor		9b Plan benefit arrangement (check all that apply) (1) ☐ Insurance (2) ☐ Code section 412(e)(3) insurance contracts (3) ☒ Trust (4) ☐ 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		b General Schedules (1) ☒ H (Financial Information) (2) ☐ I (Financial Information – Small Plan) (3) ☐ 0 A (Insurance Information) (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 2022 Form M-1 annual report. If the plan was not required to file the 2022 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) Department of the Treasury Internal Revenue Service Department of Labor Employee Benefits Security Administration Pension Benefit Guaranty Corporation	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.	OMB No. 1210-0110
		2022
		This Form is Open to Public Inspection.

For calendar plan year 2022 or fiscal plan year beginning 01/01/2022 and ending 12/31/2022	
A Name of plan SPARK THERAPEUTICS, INC. 401(K) PLAN	B Three-digit plan number (PN) ▶ 001
C Plan sponsor's name as shown on line 2a of Form 5500 SPARK THERAPEUTICS, INC.	D Employer Identification Number (EIN) 46-2654405

Part I	Service Provider Information (see instructions)
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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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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)

FIDELITY INVESTMENTS INSTITUTIONAL

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 64 65	RECORDKEEPER	57808	Yes ☐ No ☒	Yes ☐ No ☐		Yes ☐ No ☐

(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 ☐ No ☐	Yes ☐ No ☐		Yes ☐ No ☐

(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 ☐ No ☐	Yes ☐ No ☐		Yes ☐ No ☐

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
(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.	
(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
(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

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) Department of the Treasury Internal Revenue Service Department of Labor Employee Benefits Security Administration	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.	OMB No. 1210-0110 2022 This Form is Open to Public Inspection.
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For calendar plan year 2022 or fiscal plan year beginning 01/01/2022 and ending 12/31/2022		
A Name of plan SPARK THERAPEUTICS, INC. 401(K) PLAN	B Three-digit plan number (PN) ►	001
C Plan or DFE sponsor's name as shown on line 2a of Form 5500 SPARK THERAPEUTICS, INC.	D Employer Identification Number (EIN) 46-2654405	

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)		
a Name of MTIA, CCT, PSA, or 103-12 IE: FID FRDM BLND 2055 Q			
b Name of sponsor of entity listed in (a): FIAM TRUST COMPANY			
c EIN-PN 20-4659714-113	d Entity code C	e Dollar value of interest in MTIA, CCT, PSA, or 103-12 IE at end of year (see instructions) 4792613	
a Name of MTIA, CCT, PSA, or 103-12 IE: FID FRDM BLND 2035 Q			
b Name of sponsor of entity listed in (a): FIAM TRUST COMPANY			
c EIN-PN 20-4659714-092	d Entity code C	e Dollar value of interest in MTIA, CCT, PSA, or 103-12 IE at end of year (see instructions) 8211533	
a Name of MTIA, CCT, PSA, or 103-12 IE: FID FRDM BLND 2045 Q			
b Name of sponsor of entity listed in (a): FIAM TRUST COMPANY			
c EIN-PN 20-4659714-094	d Entity code C	e Dollar value of interest in MTIA, CCT, PSA, or 103-12 IE at end of year (see instructions) 9831337	
a Name of MTIA, CCT, PSA, or 103-12 IE: FID FRDM BLND 2020 Q			
b Name of sponsor of entity listed in (a): FIAM TRUST COMPANY			
c EIN-PN 20-4659714-089	d Entity code C	e Dollar value of interest in MTIA, CCT, PSA, or 103-12 IE at end of year (see instructions) 819899	
a Name of MTIA, CCT, PSA, or 103-12 IE: FID FRDM BLEND INC Q			
b Name of sponsor of entity listed in (a): FIAM TRUST COMPANY			
c EIN-PN 20-4659714-085	d Entity code C	e Dollar value of interest in MTIA, CCT, PSA, or 103-12 IE at end of year (see instructions) 477626	
a Name of MTIA, CCT, PSA, or 103-12 IE: FID FRDM BLND 2065 Q			
b Name of sponsor of entity listed in (a): FIAM TRUST COMPANY			
c EIN-PN 20-4659714-168	d Entity code C	e Dollar value of interest in MTIA, CCT, PSA, or 103-12 IE at end of year (see instructions) 711761	
a Name of MTIA, CCT, PSA, or 103-12 IE: FID FRDM BLND 2010 Q			
b Name of sponsor of entity listed in (a): FIAM TRUST COMPANY			
c EIN-PN 20-4659714-087	d Entity code C	e Dollar value of interest in MTIA, CCT, PSA, or 103-12 IE at end of year (see instructions) 44089	

a Name of MTIA, CCT, PSA, or 103-12 IE: FID FRDM BLND 2040 Q		
b Name of sponsor of entity listed in (a): FIAM TRUST COMPANY		
c EIN-PN 20-4659714-093	d Entity code C	e Dollar value of interest in MTIA, CCT, PSA, or 103-12 IE at end of year (see instructions) 9313409

a Name of MTIA, CCT, PSA, or 103-12 IE: FID FRDM BLND 2005 Q		
b Name of sponsor of entity listed in (a): FIAM TRUST COMPANY		
c EIN-PN 20-4659714-086	d Entity code C	e Dollar value of interest in MTIA, CCT, PSA, or 103-12 IE at end of year (see instructions) 44900

a Name of MTIA, CCT, PSA, or 103-12 IE: FID FRDM BLND 2030 Q		
b Name of sponsor of entity listed in (a): FIAM TRUST COMPANY		
c EIN-PN 20-4659714-091	d Entity code C	e Dollar value of interest in MTIA, CCT, PSA, or 103-12 IE at end of year (see instructions) 4935958

a Name of MTIA, CCT, PSA, or 103-12 IE: FID FRDM BLND 2050 Q		
b Name of sponsor of entity listed in (a): FIAM TRUST COMPANY		
c EIN-PN 20-4659714-095	d Entity code C	e Dollar value of interest in MTIA, CCT, PSA, or 103-12 IE at end of year (see instructions) 6925482

a Name of MTIA, CCT, PSA, or 103-12 IE: FID FRDM BLND 2025 Q		
b Name of sponsor of entity listed in (a): FIAM TRUST COMPANY		
c EIN-PN 20-4659714-090	d Entity code C	e Dollar value of interest in MTIA, CCT, PSA, or 103-12 IE at end of year (see instructions) 4823062

a Name of MTIA, CCT, PSA, or 103-12 IE: FID FRDM BLND 2060 Q		
b Name of sponsor of entity listed in (a): FIAM TRUST COMPANY		
c EIN-PN 20-4659714-147	d Entity code C	e Dollar value of interest in MTIA, CCT, PSA, or 103-12 IE at end of year (see instructions) 2151797

a Name of MTIA, CCT, PSA, or 103-12 IE: FID FRDM BLND 2015 Q		
b Name of sponsor of entity listed in (a): FIAM TRUST COMPANY		
c EIN-PN 20-4659714-088	d Entity code C	e Dollar value of interest in MTIA, CCT, PSA, or 103-12 IE at end of year (see instructions) 144055

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 04-3159710-202	d Entity code C	e Dollar value of interest in MTIA, CCT, PSA, or 103-12 IE at end of year (see instructions) 2144756

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)

Part II Information on Participating Plans (to be completed by DFEs)

(Complete as many entries as needed to report all participating plans)

a Plan name**b** Name of
plan sponsor**c** EIN-PN**a** Plan name**b** Name of
plan sponsor**c** EIN-PN**a** Plan name**b** Name of
plan sponsor**c** EIN-PN**a** Plan name**b** Name of
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plan sponsor**c** EIN-PN**a** Plan name**b** Name of
plan sponsor**c** EIN-PN

SCHEDULE H (Form 5500) Department of the Treasury Internal Revenue Service Department of Labor Employee Benefits Security Administration Pension Benefit Guaranty Corporation	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.	OMB No. 1210-0110 2022 This Form is Open to Public Inspection
For calendar plan year 2022 or fiscal plan year beginning <u>01/01/2022</u> and ending <u>12/31/2022</u>		
A Name of plan <u>SPARK THERAPEUTICS, INC. 401(K) PLAN</u>		B Three-digit plan number (PN) <u>001</u>
C Plan sponsor's name as shown on line 2a of Form 5500 <u>SPARK THERAPEUTICS, INC.</u>		D Employer Identification Number (EIN) <u>46-2654405</u>

Part I Asset and Liability Statement			
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.			
Assets		(a) Beginning of Year	(b) End of Year
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)	0	0
(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)	600888	693702
(9) Value of interest in common/collective trusts.....	1c(9)	47513608	55372277
(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)	29784893	31010796
(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	77899389	87076775

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	77899389	87076775
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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 Contributions:			
(1) Received or receivable in cash from: (A) Employers.....	2a(1)(A)	12824913	
(B) Participants.....	2a(1)(B)	14495567	
(C) Others (including rollovers).....	2a(1)(C)	5263038	
(2) Noncash contributions.....	2a(2)	0	32583518
(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)	0	
(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)	30375	
(F) Other.....	2b(1)(F)	0	
(G) Total interest. Add lines 2b(1)(A) through (F)	2b(1)(G)		30375
(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)	856420	
(D) Total dividends. Add lines 2b(2)(A) , (B) , and (C)	2b(2)(D)		856420
(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)		-9603561
(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)		-7998308
c Other income	2c		0
d Total income. Add all income amounts in column (b) and enter total	2d		15868444
Expenses			
e Benefit payment and payments to provide benefits:			
(1) Directly to participants or beneficiaries, including direct rollovers	2e(1)	6465053	
(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)		6465053
f Corrective distributions (see instructions)	2f		168197
g Certain deemed distributions of participant loans (see instructions)	2g		0
h Interest expense	2h		0
i Administrative expenses: (1) Professional fees	2i(1)	0	
(2) Contract administrator fees	2i(2)	0	
(3) Investment advisory and management fees	2i(3)	0	
(4) Other	2i(4)	57808	
(5) Total administrative expenses. Add lines 2i(1) through (4)	2i(5)		57808
j Total expenses. Add all expense amounts in column (b) and enter total	2j		6691058
Net Income and Reconciliation			
k Net income (loss). Subtract line 2j from line 2d	2k		9177386
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: **TORRILLO & ASSOCIATES, LLC**

(2) EIN: **83-0414789**

d The opinion of an independent qualified public accountant is **not attached** because:

(1) ☐ This form is filed for a CCT, PSA, 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.

During the plan year:

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.)

	Yes	No	Amount
4a		X	

	Yes	No	Amount
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.)			
4b		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.)			
4c		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.)			
4d		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	
4f		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?			
4g		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?			
4h		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		
4i	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.)			
4j		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?			
4k		X	
l Has the plan failed to provide any benefit when due under the plan?			
4l		X	
m If this is an individual account plan, was there a blackout period? (See instructions and 29 CFR 2520.101-3.)			
4m		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.			
4n			

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) Department of the Treasury Internal Revenue Service Department of Labor Employee Benefits Security Administration Pension Benefit Guaranty Corporation	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.	OMB No. 1210-0110 2022 This Form is Open to Public Inspection.
For calendar plan year 2022 or fiscal plan year beginning 01/01/2022 and ending 12/31/2022		
A Name of plan SPARK THERAPEUTICS, INC. 401(K) PLAN		B Three-digit plan number (PN) 001
C Plan sponsor's name as shown on line 2a of Form 5500 SPARK THERAPEUTICS, INC.		D Employer Identification Number (EIN) 46-2654405
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): 04-6568107		
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)? ☐ Yes ☐ No ☐ 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? ☐ Yes ☐ No ☐ 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? ☐ Yes ☐ No ☐ N/A		
Part III Amendments		
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..... ☐ Increase ☐ Decrease ☐ Both ☐ No		
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?.....		☐ Yes ☐ No
11 a Does the ESOP hold any preferred stock?.....		☐ Yes ☐ 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.).....		☐ Yes ☐ No
12 Does the ESOP hold any stock that is not readily tradable on an established securities market?.....		☐ Yes ☐ No
For Paperwork Reduction Act Notice, see the Instructions for Form 5500.		
Schedule R (Form 5500) 2022 v. 220413		

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: ☐ last contributing employer ☐ alternative ☐ reasonable approximation (see instructions for required attachment).....	14a	
	b The plan year immediately preceding the current plan year. ☐ 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. ☐ 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
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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) through (c) a Enter the percentage of plan assets held as: Stock: _____% Investment-Grade Debt: _____% High-Yield Debt: _____% Real Estate: _____% Other: _____% b Provide the average duration of the combined investment-grade and high-yield debt: ☐ 0-3 years ☐ 3-6 years ☐ 6-9 years ☐ 9-12 years ☐ 12-15 years ☐ 15-18 years ☐ 18-21 years ☐ 21 years or more c What duration measure was used to calculate line 19(b)? ☐ Effective duration ☐ Macaulay duration ☐ Modified duration ☐ Other (specify): _____
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 _____

SPARK THERAPEUTICS, INC. 401(K) PLAN

**Financial Statements
As of December 31, 2022 and 2021
And
For the Year Ended December 31, 2022
And
Supplemental Schedule
As of December 31, 2022**

Spark Therapeutics, Inc. 401(k) Plan Index

	Page(s)
Independent Auditor's Report	1 – 3
Financial Statements:	
Statements of Net Assets Available for Benefits	4
Statement of Changes in Net Assets Available for Benefits	5
Notes to Financial Statements	6 – 12
Supplemental Schedule:	
Schedule H, Line 4(i) – Schedule of Assets (Held at End of Year)	S.1

- The supplemental schedule included is presented for purposes of additional analysis and is not a required part of the financial statements but is required by the Employee Retirement Income Security Act of 1974, as amended ("ERISA"). Other schedules required by section 2520.103-10 of the Department of Labor's Rules and Regulations for Reporting and Disclosure under ERISA have been omitted because they are not applicable.

INDEPENDENT AUDITOR'S REPORT

To the Participants and Plan Administrator of the Spark Therapeutics, Inc. 401(k) Plan

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

We have performed audits of the accompanying financial statements of the Spark Therapeutics, 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, 2022 and 2021, and the related statement of changes in net assets available for benefits for the year ended December 31, 2022, and the related notes to the financial statements.

Plan management, having determined it is permissible in the circumstances, has elected to have the audits of the Spark Therapeutics, 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 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 Department of Labor's Rules and Regulations for Reporting and Disclosure under ERISA ("qualified institution").

Plan management has obtained certifications from a qualified institution as of December 31, 2022 and 2021, and for the year ended December 31, 2022, stating that the certified investment information, as described in Note 3 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 financial statements referred to above, 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 financial statements referred to above 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 Plan 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 the Spark Therapeutics, 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 Plan Management for the Financial Statements

Plan 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. Plan management's election of the ERISA Section 103(a)(3)(C) audit does not affect Plan management's responsibility for the financial statements.

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

Plan 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 the Spark Therapeutics, 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 Plan 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 the Spark Therapeutics, 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 certifications, 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.

Supplemental Schedule Required by ERISA

The supplemental Schedule H, Line 4(i) – Schedule of Assets (Held at End of Year) as of December 31, 2022 is presented for purposes of additional analysis and is not a required part of the financial statements but is supplementary information required by the Department of Labor's Rules and Regulations for Reporting and Disclosure under ERISA. Such information is the responsibility of Plan 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 Department of Labor'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 Department of Labor'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 Plan management determined meets the requirements of ERISA Section 103(a)(3)(C).

Touche + Associates, LLP

October 10, 2023

Spark Therapeutics, Inc. 401(k) Plan
Statements of Net Assets Available for Benefits
As of December 31, 2022 and 2021

	<u>2022</u>	<u>2021</u>
Assets:		
Investments, at fair value	\$ 86,383,073	\$ 77,298,501
Receivables:		
Employer contributions	6,560,510	4,958,911
Notes receivable from participants	693,702	600,888
Total receivables	<u>7,254,212</u>	<u>5,559,799</u>
Total assets	93,637,285	82,858,300
Liabilities:		
Excess contributions payable	<u>132,220</u>	<u>95,325</u>
Total liabilities	<u>132,220</u>	<u>95,325</u>
Net assets available for benefits	<u>\$ 93,505,065</u>	<u>\$ 82,762,975</u>

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

Spark Therapeutics, Inc. 401(k) Plan
Statement of Changes in Net Assets Available for Benefits
For the Year Ended December 31, 2022

	<u>2022</u>
Additions (reductions) to net assets attributed to:	
Investment income (loss):	
Net depreciation in fair value of investments	\$ (17,654,188)
Interest and dividend income	908,739
Net investment income (loss)	<u>(16,745,449)</u>
Interest income on notes receivable from participants	30,375
Contributions:	
Participants'	14,363,347
Employer's	14,426,512
Rollovers	5,263,038
Total contributions	<u>34,052,897</u>
Total additions	17,337,823
Deductions from net assets attributed to:	
Benefits paid to participants	6,537,925
Administrative expenses	57,808
Total deductions	<u>6,595,733</u>
Net increase	10,742,090
Net assets available for benefits	
Beginning of year	82,762,975
End of year	<u><u>\$ 93,505,065</u></u>

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

Spark Therapeutics, Inc. 401(k) Plan
Notes to Financial Statements
As of December 31, 2022 and 2021 and for the Year Ended December 31, 2022

1. Description of Plan

The following description of the Spark Therapeutics, Inc. 401(k) Plan (the “Plan”) provides only general information. The Plan was originally effective January 1, 2014 and was most recently amended and restated effective April 27, 2022 (see Note 9). 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 covering substantially all employees of Spark Therapeutics, Inc. (the “Company”) who have attained the age of twenty-one. The Plan is subject to the provisions of the Employee Retirement Income Security Act of 1974 (“ERISA”).

Contributions

Each year, participants may contribute up to 75 percent of their pre-tax annual compensation, as defined in the Plan document. Participants who have attained age 50 before the end of the Plan year are eligible to make catch-up contributions. The Plan also allows for Roth 401(k) contributions, after-tax contributions and in-plan Roth conversions. Participants may also contribute amounts representing distributions from other qualified defined benefit or defined contribution plans (rollovers).

The Plan includes an auto-enrollment provision whereby all newly eligible employees, and active employees who are hired on or after March 2, 2016 and do not have a deferral election on file, are automatically enrolled into the Plan thirty days after their date of hire unless they affirmatively elect not to participate in the Plan. Automatically enrolled participants have their deferral rate set at 4 percent of eligible compensation and their contributions invested in a designated age appropriate fund until changed by the participants. Eligible employees having a date of hire or reemployment prior to March 2, 2016, are not subject to automatic enrollment. The Plan also provides for automatic escalation where participants who have previously been auto enrolled in the Plan will have their deferral increase by 2 percent per year up to a maximum of 10 percent.

The Company makes a safe harbor matching employer contribution of 100% of the first 6% of eligible compensation that a participant contributes to the Plan. The Plan also provides for a non-elective employer contribution based on a fixed formula of 4 percent of an eligible participant’s compensation for participants employed on the last day of the Plan year.

Contributions are subject to certain Internal Revenue Service (“IRS”) limits.

Vesting

A participant, at all times, has a fully vested (100%) interest in their own contributions, safe harbor matching employer contributions, and rollover contributions, including actual earnings thereon. Non-elective employer contributions are subject to cliff vesting after three years.

Forfeited Amounts

As of December 31, 2022 and 2021, forfeited non-vested accounts totaled \$3,295 and \$3,704, respectively. Forfeitures may be applied to payment of administrative expenses and/or to reduce employer contributions. During the year ended December 31, 2022, forfeitures of \$194,195 were used to reduce employer contributions, and forfeitures of \$386 were used to pay administrative expenses of the Plan.

Participant Accounts

Each participant’s account is credited with the participant’s contribution and safe harbor matching employer contributions, as well as allocations of non-elective employer contributions and Plan earnings. Participant accounts are charged with an allocation of administrative expenses that are paid by the Plan. Allocations are based on participant earnings, account balances, or specific participant transactions, as defined in the Plan document. The benefit to which a participant is entitled is the benefit that can be provided from the participant’s vested account.

Spark Therapeutics, Inc. 401(k) Plan
Notes to Financial Statements
As of December 31, 2022 and 2021 and for the Year Ended December 31, 2022

Investment Options

Participants may direct the investment of their contributions into various mutual funds and collective investment trusts offered by the Plan and maintained by the trustee of the Plan. Participants may change their investment options at any time.

Notes Receivable from Participants

Participants may borrow from their fund accounts at a maximum amount equal to the lesser of \$50,000 or 50 percent of their vested account balances. The loans are secured by the balance in the participant's account and bear interest at a rate commensurate with local prevailing rates as determined by the Plan administrator. Principal and interest are paid ratably through payroll deductions. Loan terms shall not extend beyond five years from the date of the loan, unless the loan is for the purchase of a participant's primary residence. A participant may have only one loan outstanding at any given time.

Payment of Benefits

On termination of service due to death, disability, retirement or otherwise, a participant may elect to receive a lump sum amount equal to the value of the participant's vested interest in his or her account. In circumstances when a terminated participant has a vested account balance less than \$5,000, the participant's vested account balance shall be distributed in a lump sum. In the event of a mandatory distribution greater than \$1,000, if the participant does not elect to have such distribution paid directly to an eligible retirement plan specified by the participant in a direct rollover or to receive the distribution directly, then the Plan administrator will pay the distribution in a direct rollover to an individual retirement account designated by the Plan administrator. Hardship and in-service distributions are also permitted from participant accounts, based on the terms of the Plan document.

2. Summary of Significant Accounting Policies

The following are the significant accounting policies followed by the Plan:

Basis of Accounting

The financial statements of the Plan are prepared using the accrual basis of accounting.

Investment Valuation and Income Recognition

Investments are reported at 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 trustee and investment advisors. See Note 4 for discussion of fair value measurements.

Purchases and sales of investments are recorded on a trade-date basis. Interest income is recorded on the accrual basis. Dividend income is recorded on the ex-dividend date. Net depreciation in fair value of investments includes the Plan's gains and losses on investments bought and sold, as well as held during the year.

Use of Estimates

The preparation of financial statements in conformity with accounting principles generally accepted in the United States of America requires the plan administrator to make estimates and assumptions that affect the reported amounts of assets and liabilities, changes therein, and disclosure of contingent assets and liabilities at the date of the financial statements. Actual results may differ from those estimates.

Notes Receivable from Participants

Notes receivable from participants (participant loans for Form 5500 reporting purposes) are measured at their unpaid principal balance plus any accrued but unpaid interest. Interest income is recorded on the accrual basis. Delinquent participant loans are reclassified as distributions based upon the terms of the Plan document.

Payments of Benefits

Benefits are recorded when paid.

Spark Therapeutics, Inc. 401(k) Plan
Notes to Financial Statements
As of December 31, 2022 and 2021 and for the Year Ended December 31, 2022

Administrative Expenses

All reasonable administrative expenses, including trustee, custodial and third party administration fees necessary to operate and administer the Plan are paid by the Plan, unless otherwise paid by the Company. Expenses of maintaining the Plan that are paid directly by the Company are excluded from these financial statements. A participant's account may be charged for expenses associated with a specific optional feature, including administration of participant loans, elected by that participant, and are included in administrative expenses. Certain investment related expenses are included in the net depreciation in fair value of investments.

Excess Contributions Payable

The Plan is required to return contributions received during the Plan year in excess of the Internal Revenue Code limits. As of December 31, 2022 and 2021, the Plan had excess contributions. Such excess contributions are recorded as a liability with a corresponding reduction to contributions. The Plan distributed the 2022 and 2021 excess contributions to the applicable participants during 2023 and 2022, respectively.

Subsequent Events

The Plan has evaluated subsequent events through October 10, 2023, the date the financial statements were available to be issued.

3. Information Certified by a Qualified Institution

The Plan administrator having determined that it is permissible in the circumstances elected to have the audits of the Plan performed in accordance with ERISA Section 103(a)(3)(C) pursuant to 29 CFR 2520.103-8 of the Department of Labor's Rules and Regulations for Reporting and Disclosure under ERISA. Accordingly, as permitted under such election, the following information included in the accompanying financial statements and ERISA-required supplemental schedule of assets (held at end of year) was obtained or derived from information obtained by the Plan administrator and certified as complete and accurate by Fidelity Management Trust Company ("Fidelity"), a qualified institution and the trustee of the Plan, in accordance with 29 CFR 2520.103-5 of the Department of Labor's Rules and Regulations for Reporting and Disclosure under ERISA:

- Investments, at fair value, and notes receivable from participants as shown in the statements of net assets available for benefits as of December 31, 2022 and 2021.
- Investment activity, including net depreciation in fair value of investments, interest and dividend income, and interest income on notes receivable from participants as shown in the statement of changes in net assets available for benefits for the year ended December 31, 2022.
- The information for all mutual funds (registered investment companies), collective investment trusts and participant loans listed in the schedule of assets (held at end of year) as of December 31, 2022 as shown in the ERISA-required supplemental schedule.

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 measurements) and the lowest priority to unobservable inputs (level 3 measurements). The three levels of the fair value hierarchy are described as follows:

- Level 1: Inputs to the valuation methodology 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 methodology 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;

Spark Therapeutics, Inc. 401(k) Plan
Notes to Financial Statements
As of December 31, 2022 and 2021 and for the Year Ended December 31, 2022

- 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 methodology 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 used need to maximize the use of observable inputs and minimize the use of unobservable inputs.

The following is a description of the valuation methodologies used for assets measured at fair value. There have been no changes in methodologies used as of December 31, 2022 and 2021.

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 ("NAV") and to transact at that price. The mutual funds held by the Plan are deemed to be actively traded.

Collective investment trusts: Valued at the net asset value or equivalent based on units of the collective investment trust. The NAV, as provided by the trustee, is used as a practical expedient to estimate fair value. The NAV is generally based on the fair value of the underlying investments held by the collective investment trust less its liabilities. This practical expedient is not used when it is determined to be probable that the collective investment trust will sell the investment for an amount different than the reported NAV.

The preceding methods described 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 valuation methods are appropriate and consistent with other market participants, the use of different methodologies or assumptions to determine fair value of certain financial instruments could result in a different fair value measurement at the reporting date.

The following table sets forth by level, within the fair value hierarchy, the Plan's fair value measurements as of December 31, 2022:

	<u>Total</u>	<u>Level 1</u>	<u>Level 2</u>	<u>Level 3</u>
Investments, at fair value:				
Mutual funds	\$ 31,010,796	\$ 31,010,796	\$ -	\$ -
Collective investment trusts (*)	55,372,277	-	-	-
Total	<u>\$ 86,383,073</u>	<u>\$ 31,010,796</u>	<u>\$ -</u>	<u>\$ -</u>

The following table sets forth by level, within the fair value hierarchy, the Plan's fair value measurements as of December 31, 2021:

	<u>Total</u>	<u>Level 1</u>	<u>Level 2</u>	<u>Level 3</u>
Investments, at fair value:				
Mutual funds	\$ 29,784,893	\$ 29,784,893	\$ -	\$ -
Collective investment trusts (*)	47,513,608	-	-	-
Total	<u>\$ 77,298,501</u>	<u>\$ 29,784,893</u>	<u>\$ -</u>	<u>\$ -</u>

Spark Therapeutics, Inc. 401(k) Plan
Notes to Financial Statements
As of December 31, 2022 and 2021 and for the Year Ended December 31, 2022

*In accordance with fair value measurement guidance, certain investments that are measured at fair value using the net asset value per share (or its equivalent) practical expedient 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 amounts presented as investments in the statements of net assets available for benefits.

The availability of observable market data is monitored to assess the appropriate classification of financial instruments within the fair value hierarchy. Changes in economic conditions or model-based valuation techniques may require transfer of financial instruments from one fair value level to another. In such instances, the transfer is reported at the beginning of the reporting period.

The Plan evaluates the significance of transfers between levels based upon the nature of the financial instrument and size of the transfer relative to total net assets available for benefits. For the year ended December 31, 2022, there were no transfers in or out of levels 1, 2, or 3.

The following table sets forth additional disclosures for the fair value measurement of investments in certain entities that calculate net asset value per share (or its equivalent) as of December 31, 2022 and 2021.

<u>Investment Type</u>	<u>Fair Value</u> <u>December 31,</u> <u>2022</u>	<u>Fair Value</u> <u>December 31,</u> <u>2021</u>	<u>Unfunded</u> <u>Commitments</u>	<u>Redemption</u> <u>Frequency</u>	<u>Redemption</u> <u>Notice Period</u>
Collective investment trusts	\$ 55,372,277	\$ 47,513,608	\$ -	Daily	Daily

The Plan's investment options include collective investment trusts which are designed to mirror the investment strategies of similar mutual funds, including target date funds of Fidelity Institutional Asset Management ("FIAM"). The objective of common collective trusts with target date strategies is to provide an age-based investment mix of stocks, bonds and short-term investments. These collective investment trusts are redeemable at net asset value under agreements with the underlying collective investment trusts. However, it is possible that these redemption rights may be restricted by the collective investment trusts in the future in accordance with underlying fund agreements. Due to the nature of the investments held by the collective investment trusts, changes in market conditions and the economic environment may significantly impact the net asset value of the collective investment trusts, and consequently, the fair value of the Plan's interest in the collective investment trusts. Furthermore, changes in the liquidity provisions of the funds may significantly impact the fair value of the Plan's interest in the collective investment trusts.

The Plan is applying the practical expedient as of December 31, 2022 and 2021 to its investment in the Putnam Stable Value Fund (the "Fund"), a collective investment trust. The Fund's investment objective is to seek the preservation of capital and to provide a competitive level of income over the time that is consistent with the preservation of capital. Participants' ownership of the Fund is represented as units. Units are issued and redeemed daily at the Fund's constant NAV of \$1 per unit. The Fund allows for daily liquidity, with no additional days' notice required for redemption. It is the policy of the Fund to use its best efforts to maintain a stable NAV of \$1 per unit, although there is no guarantee that the Fund will be able to maintain this value.

The Fund invests in assets (typically fixed income securities or bond funds, and may include derivative instruments such as futures contracts and swap agreements) and enters into "wrap" contracts issued by third parties and invests in cash equivalents represented by shares in a money market fund. Wrap contracts are designed to allow a stable value portfolio to maintain a constant NAV and protect a portfolio in extreme circumstances. In a typical wrap contract, the wrap issuer agrees to pay a portfolio the difference between the contract value and the market value of the underlying assets once the market value has been totally exhausted. The Fund is unlikely to maintain a stable NAV if, for any reason, it cannot obtain or maintain wrap contracts covering all of its underlying assets that are not otherwise invested in money market funds.

Spark Therapeutics, Inc. 401(k) Plan
Notes to Financial Statements
As of December 31, 2022 and 2021 and for the Year Ended December 31, 2022

5. Tax Status

Effective April 27, 2022 (see Note 9), through the adoption of a Fidelity Pre-Approved Defined Contribution Plan, the Plan was amended and restated. The Internal Revenue Service ("IRS") issued an opinion letter dated June 30, 2020, stating that the pre-approved defined contribution plan document was designed in accordance with applicable Internal Revenue Code ("IRC") requirements as of that date. Prior to the April 27, 2022 amendment and restatement of the Plan, the Plan had adopted a Fidelity Volume Submitter Defined Contribution Plan, which received an advisory letter dated March 31, 2014, stating that the volume submitter profit sharing plan document as then designed was in accordance with applicable IRC requirements.

Although the Plan has been amended since receiving the advisory letter and opinion letter, management of the Plan believes the Plan is designed and is currently being operated in compliance with the applicable requirements of the IRC. Therefore, the Plan administrator believes the Plan, as amended, is qualified and the related trust is tax-exempt. Therefore, no provision for income taxes has been included in the Plan's financial statements.

Accounting principles generally accepted in the United States of America require plan management to evaluate tax positions taken by the Plan and recognize a tax liability (or asset) if the Plan has taken an uncertain position that more likely than not would not be sustained upon examination by the IRS. The Plan administrator has analyzed the tax positions taken by the Plan, and has concluded that as of December 31, 2022, there are no uncertain 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. The Plan administrator believes it is no longer subject to income tax examinations for years prior to 2019.

6. Related-Party and Party-In-Interest Transactions

Certain Plan investments are shares of mutual funds and collective investment trusts managed by or affiliated with Fidelity. Fidelity is the trustee and recordkeeper of the Plan. Therefore, these transactions qualify as party-in-interest transactions, which are exempt from the prohibited transaction rules of ERISA. Fees incurred by the Plan for investment management services are included in the net depreciation in fair value of investments. Fees paid directly from participant accounts, including those for the administration of participant loans, are included in administrative expenses. Additionally, for participants who have elected to take a participant loan, the loans are secured by the respective participant's account balance.

7. 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 termination, participants will become 100% vested in their accounts including any employer contributions in which they are not already vested, and all remaining assets in the Plan are to be distributed to the participants by the trustee in accordance with the accrued benefits of such participants as of the date of termination.

8. Risks and Uncertainties

The Plan invests in various investment securities. Investment securities are exposed to various risks such as interest rate risks, market risks, 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 the participants' account balances and the amounts reported in the statements of net assets available for benefits.

Spark Therapeutics, Inc. 401(k) Plan
Notes to Financial Statements
As of December 31, 2022 and 2021 and for the Year Ended December 31, 2022

9. Plan Amendments

Effective April 27, 2022, the Plan was amended and restated to:

- Exclude co-ops and interns from being eligible to participate in the Plan, until such employees have attained the age of 21 and completed 1,000 hours of service;
- Update the definition of compensation; and
- Make other general administrative changes, including incorporating past amendments and adopting required amendments pursuant to statutory changes.

Effective July 15, 2022, the Plan was amended to include credited service from Roche and all affiliated companies, for eligibility and vesting purposes.

Effective January 1, 2023, the Plan was amended to exclude co-ops and interns from being eligible to participate in the Plan.

10. Reconciliation of Form 5500 to Financial Statements

The following is a reconciliation of net assets available for benefits per the financial statements to the Schedule H of Form 5500 as of December 31, 2022 and 2021:

	<u>2022</u>	<u>2021</u>
Net assets available for benefits per the financial statements	\$ 93,505,065	\$ 82,762,975
Employer contribution receivable	(6,560,510)	(4,958,911)
Excess contributions payable	<u>132,220</u>	<u>95,325</u>
Net assets per the Form 5500	<u>\$ 87,076,775</u>	<u>\$ 77,899,389</u>

The following is a reconciliation of the change in net assets available for benefits per the financial statements to the Schedule H of Form 5500 for the year ended December 31, 2022:

	<u>2022</u>
Increase in net assets available for benefits per the financial statements	\$ 10,742,090
Change in employer contribution receivable	(1,601,599)
Change in excess contributions payable	<u>36,895</u>
Increase in net assets available for benefits per the Form 5500	<u>\$ 9,177,386</u>

SUPPLEMENTAL SCHEDULE

Spark Therapeutics, Inc. 401(k) Plan
Schedule H, Line 4(i) – Schedule of Assets (Held at End of Year)
As of December 31, 2022

EIN: 46-2654405 Plan #001

(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	(e) Current value
	Mutual Funds:		
	BlackRock	Mid Cap Growth Equity Fund	\$ 862,876
	American Funds	EuroPacific Growth Fund	1,355,343
	Victory	Sycamore Small Company Opportunity Fund	706,966
	MFS	Mid Cap Value Fund	942,458
	MFS	Value Fund	1,306,434
	Invesco	Small Cap Growth Fund	918,093
	The Hartford	International Opportunities Fund	825,039
	T. Rowe Price	Blue Chip Growth Fund	2,993,636
	JPMorgan	US Equity Fund	2,038,337
*	Fidelity	Real Estate Index Fund	637,419
*	Fidelity	Advisor Total Bond Fund	1,719,341
*	Fidelity	International Index Fund	1,167,696
*	Fidelity	S&P 500 Index Fund	10,631,584
*	Fidelity	US Bond Index Fund	609,721
*	Fidelity	Mid Cap Index Fund	2,495,659
*	Fidelity	Small Cap Index Fund	1,800,194
	Total Mutual Funds:		31,010,796
	Collective Investment Trusts:		
*	FIAM	Blend Target Date 2005	44,900
*	FIAM	Blend Target Date 2010	44,089
*	FIAM	Blend Target Date 2015	144,055
*	FIAM	Blend Target Date 2020	819,899
*	FIAM	Blend Target Date 2025	4,823,062
*	FIAM	Blend Target Date 2030	4,935,958
*	FIAM	Blend Target Date 2035	8,211,533
*	FIAM	Blend Target Date 2040	9,313,409
*	FIAM	Blend Target Date 2045	9,831,337
*	FIAM	Blend Target Date 2050	6,925,482
*	FIAM	Blend Target Date 2055	4,792,613
*	FIAM	Blend Target Date 2060	2,151,797
*	FIAM	Blend Target Date 2065	711,761
*	FIAM	Blend Target Date Income	477,626
	Putnam	Stable Value	2,144,756
	Total Collective Investment Trusts:		55,372,277
*	Participant Loans	Interest rates of 4.25% - 8.00% with maturities through 2051	693,702
			<u>\$ 87,076,775</u>

*: Party-in-interest

"Cost" is not required as all the investments are participant-directed. The cost value of participant loans is \$0.

The information in this schedule has been derived from information certified as to its completeness and accuracy by Fidelity Management Trust Company, a qualified institution.

Spark Therapeutics, Inc. 401(k) Plan
Schedule H, Line 4(i) – Schedule of Assets (Held at End of Year)
As of December 31, 2022

EIN: 46-2654405 Plan #001

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