

|                                                                                                                                                                                                                          |                                                                                                                                                                                                                                                                                                                                                                                               |                                                                                                               |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------|
| <div>Form 5500</div> <div>Department of the Treasury<br/>Internal Revenue Service</div> <div>Department of Labor<br/>Employee Benefits Security<br/>Administration</div> <div>Pension Benefit Guaranty Corporation</div> | <div>Annual Return/Report of Employee Benefit Plan</div> <div>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).</div> <div>▶ Complete all entries in accordance with the instructions to the Form 5500.</div> | <div>OMB Nos. 1210-0110<br/>1210-0089</div> <div>2023</div> <div>This Form is Open to Public Inspection</div> |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------|

|                                                                                            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
|--------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Part I                                                                                     | Annual Report Identification Information                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| For calendar plan year 2023 or fiscal plan year beginning 01/01/2023 and ending 12/31/2023 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| A                                                                                          | This return/report is for: <div><div><input type="checkbox"/> a multiemployer plan</div><div><input type="checkbox"/> a multiple-employer plan (Filers checking this box must provide participating employer information in accordance with the form instructions.)</div><div><input checked="" type="checkbox"/> a single-employer plan</div><div><input type="checkbox"/> a DFE (specify) _____</div><div><input type="checkbox"/> the first return/report</div><div><input type="checkbox"/> the final return/report</div><div><input type="checkbox"/> an amended return/report</div><div><input type="checkbox"/> a short plan year return/report (less than 12 months)</div></div> |
| C                                                                                          | If the plan is a collectively-bargained plan, check here. .... ▶ <input type="checkbox"/>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| D                                                                                          | Check box if filing under: <div><div><input checked="" type="checkbox"/> Form 5558</div><div><input type="checkbox"/> automatic extension</div><div><input type="checkbox"/> the DFVC program</div><div><input type="checkbox"/> special extension (enter description)</div></div>                                                                                                                                                                                                                                                                                                                                                                                                       |
| E                                                                                          | If this is a retroactively adopted plan permitted by SECURE Act section 201, check here. .... ▶ <input type="checkbox"/>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |

|         |                                                                                                                                                                                                                                                                                                                                              |                                                                                                                                                             |
|---------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Part II | Basic Plan Information—enter all requested information                                                                                                                                                                                                                                                                                       |                                                                                                                                                             |
| 1a      | Name of plan<br>RHYTHM PHARMACEUTICALS INC. 401K PLAN                                                                                                                                                                                                                                                                                        | 1b Three-digit plan number (PN) ▶ 001                                                                                                                       |
|         |                                                                                                                                                                                                                                                                                                                                              | 1c Effective date of plan 01/01/2016                                                                                                                        |
| 2a      | Plan sponsor's name (employer, if for a single-employer plan)<br>Mailing address (include room, apt., suite no. and street, or P.O. Box)<br>City or town, state or province, country, and ZIP or foreign postal code (if foreign, see instructions)<br>RHYTHM PHARMACEUTICALS INC.<br><br>222 BERKELEY ST.<br>12TH FLOOR<br>BOSTON, MA 02116 | 2b Employer Identification Number (EIN) 46-2159271<br><br>2c Plan Sponsor's telephone number 857-264-4290<br><br>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. |                                                   |            |                                                              |
| SIGN HERE                                                                                                                                                                                                                                                                                                                              | Filed with authorized/valid electronic signature. | 10/11/2024 | CHRISTOPHER GERMAN                                           |
|                                                                                                                                                                                                                                                                                                                                        | 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                      |

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                                                                                                                                                                                                                                       |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>3a</b> Plan administrator's name and address <input checked="" type="checkbox"/> Same as Plan Sponsor                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | <b>3b</b> Administrator's EIN<br><br><b>3c</b> Administrator's telephone number<br><br><div style="background-color: #cccccc; height: 40px; width: 100%;"></div>                                                                                      |
| <b>4</b> 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:<br><b>a</b> Sponsor's name<br><b>c</b> Plan Name                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | <b>4b</b> EIN<br><br><b>4d</b> PN                                                                                                                                                                                                                     |
| <b>5</b> Total number of participants at the beginning of the plan year                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | <b>5</b> 178                                                                                                                                                                                                                                          |
| <b>6</b> Number of participants as of the end of the plan year unless otherwise stated (welfare plans complete only lines <b>6a(1)</b> , <b>6a(2)</b> , <b>6b</b> , <b>6c</b> , and <b>6d</b> ).<br><b>a(1)</b> Total number of active participants at the beginning of the plan year .....<br><b>a(2)</b> Total number of active participants at the end of the plan year .....<br><b>b</b> Retired or separated participants receiving benefits .....<br><b>c</b> Other retired or separated participants entitled to future benefits .....<br><b>d</b> Subtotal. Add lines <b>6a(2)</b> , <b>6b</b> , and <b>6c</b> . .....<br><b>e</b> Deceased participants whose beneficiaries are receiving or are entitled to receive benefits .....<br><b>f</b> Total. Add lines <b>6d</b> and <b>6e</b> . .....<br><b>g(1)</b> Number of participants with account balances as of the beginning of the plan year (only defined contribution plans complete this item) .....<br><b>g(2)</b> Number of participants with account balances as of the end of the plan year (only defined contribution plans complete this item) .....<br><b>h</b> Number of participants who terminated employment during the plan year with accrued benefits that were less than 100% vested ..... | <div style="background-color: #cccccc; height: 20px; width: 100%;"></div> <b>6a(1)</b> 140<br><b>6a(2)</b> 170<br><b>6b</b> 0<br><b>6c</b> 44<br><b>6d</b> 214<br><b>6e</b> 0<br><b>6f</b> 214<br><b>6g(1)</b> 178<br><b>6g(2)</b> 209<br><b>6h</b> 0 |
| <b>7</b> Enter the total number of employers obligated to contribute to the plan (only multiemployer plans complete this item) .....                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | <b>7</b>                                                                                                                                                                                                                                              |

**8a** If the plan provides pension benefits, enter the applicable pension feature codes from the List of Plan Characteristics Codes in the instructions:

2E 2F 2G 2J 2K 2S 2T 3D

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

|                                                                                                                                                                                                                                                                                               |                                                                                                                                                                                                                                                                                               |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>9a</b> Plan funding arrangement (check all that apply)<br>(1) <input type="checkbox"/> Insurance<br>(2) <input type="checkbox"/> Code section 412(e)(3) insurance contracts<br>(3) <input checked="" type="checkbox"/> Trust<br>(4) <input type="checkbox"/> General assets of the sponsor | <b>9b</b> Plan benefit arrangement (check all that apply)<br>(1) <input type="checkbox"/> Insurance<br>(2) <input type="checkbox"/> Code section 412(e)(3) insurance contracts<br>(3) <input checked="" type="checkbox"/> Trust<br>(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 2023 Form M-1 annual report. If the plan was not required to file the 2023 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 \_\_\_\_\_

|                                                                                                                                                                                                                                              |                                                                                                                                                                                                                             |                                         |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------|
| <div>SCHEDULE C</div> <div>(Form 5500)</div> <div>Department of the Treasury<br/>Internal Revenue Service</div> <div>Department of Labor<br/>Employee Benefits Security Administration</div> <div>Pension Benefit Guaranty Corporation</div> | <div>Service Provider Information</div> <div>This schedule is required to be filed under section 104 of the Employee Retirement Income Security Act of 1974 (ERISA).</div> <div>▶ File as an attachment to Form 5500.</div> | OMB No. 1210-0110                       |
|                                                                                                                                                                                                                                              |                                                                                                                                                                                                                             | 2023                                    |
|                                                                                                                                                                                                                                              |                                                                                                                                                                                                                             | This Form is Open to Public Inspection. |

|                                                                                            |                                                      |     |
|--------------------------------------------------------------------------------------------|------------------------------------------------------|-----|
| For calendar plan year 2023 or fiscal plan year beginning 01/01/2023 and ending 12/31/2023 |                                                      |     |
| A Name of plan<br>RHYTHM PHARMACEUTICALS INC. 401K PLAN                                    | B Three-digit plan number (PN) ▶                     | 001 |
|                                                                                            |                                                      |     |
| C Plan sponsor's name as shown on line 2a of Form 5500<br>RHYTHM PHARMACEUTICALS INC.      | D Employer Identification Number (EIN)<br>46-2159271 |     |

|        |                                                 |
|--------|-------------------------------------------------|
| 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 |
|------------------------------------------------------------------------------------------------------------|

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

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

---

---

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

---

---

---

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

---

---

---

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

---

---

---

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

---

---

---

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

---

---

---

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

---

---

---

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

---

---

---

**(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)

FIDELITY INVESTMENTS INSTITUTIONAL

04-2647786

| (b)<br>Service Code(s) | (c)<br>Relationship to employer, employee organization, or person known to be a party-in-interest | (d)<br>Enter direct compensation paid by the plan. If none, enter -0-. | (e)<br>Did service provider receive indirect compensation? (sources other than plan or plan sponsor) | (f)<br>Did indirect compensation include eligible indirect compensation, for which the plan received the required disclosures? | (g)<br>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)<br>Did the service provider give you a formula instead of an amount or estimated amount? |
|------------------------|---------------------------------------------------------------------------------------------------|------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------|
| 37 64 65               | RECORDKEEPER                                                                                      | 20576                                                                  | Yes <input type="checkbox"/> No <input checked="" 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)<br>Service Code(s) | (c)<br>Relationship to employer, employee organization, or person known to be a party-in-interest | (d)<br>Enter direct compensation paid by the plan. If none, enter -0-. | (e)<br>Did service provider receive indirect compensation? (sources other than plan or plan sponsor) | (f)<br>Did indirect compensation include eligible indirect compensation, for which the plan received the required disclosures? | (g)<br>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)<br>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)<br>Service Code(s) | (c)<br>Relationship to employer, employee organization, or person known to be a party-in-interest | (d)<br>Enter direct compensation paid by the plan. If none, enter -0-. | (e)<br>Did service provider receive indirect compensation? (sources other than plan or plan sponsor) | (f)<br>Did indirect compensation include eligible indirect compensation, for which the plan received the required disclosures? | (g)<br>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)<br>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<br>(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<br>(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<br>(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)

|                    |                     |
|--------------------|---------------------|
| <b>a</b> Name:     | <b>b</b> EIN:       |
| <b>c</b> Position: |                     |
| <b>d</b> Address:  | <b>e</b> Telephone: |
|                    |                     |

Explanation:

|                    |                     |
|--------------------|---------------------|
| <b>a</b> Name:     | <b>b</b> EIN:       |
| <b>c</b> Position: |                     |
| <b>d</b> Address:  | <b>e</b> Telephone: |
|                    |                     |

Explanation:

|                    |                     |
|--------------------|---------------------|
| <b>a</b> Name:     | <b>b</b> EIN:       |
| <b>c</b> Position: |                     |
| <b>d</b> Address:  | <b>e</b> Telephone: |
|                    |                     |

Explanation:

|                    |                     |
|--------------------|---------------------|
| <b>a</b> Name:     | <b>b</b> EIN:       |
| <b>c</b> Position: |                     |
| <b>d</b> Address:  | <b>e</b> Telephone: |
|                    |                     |

Explanation:

|                    |                     |
|--------------------|---------------------|
| <b>a</b> Name:     | <b>b</b> EIN:       |
| <b>c</b> Position: |                     |
| <b>d</b> Address:  | <b>e</b> Telephone: |
|                    |                     |

Explanation:

|                                                                                                                                                                                                                           |                                                                                                                                                                                                                                                                              |                                               |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------|
| <b>SCHEDULE H</b><br><b>(Form 5500)</b><br><br>Department of the Treasury<br>Internal Revenue Service<br><br>Department of Labor<br>Employee Benefits Security Administration<br><br>Pension Benefit Guaranty Corporation | <b>Financial Information</b><br><br>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).<br><br><b>► File as an attachment to Form 5500.</b> | OMB No. 1210-0110                             |
|                                                                                                                                                                                                                           |                                                                                                                                                                                                                                                                              | <b>2023</b>                                   |
|                                                                                                                                                                                                                           |                                                                                                                                                                                                                                                                              | <b>This Form is Open to Public Inspection</b> |

|                                                                                                          |                                                |                                                                    |
|----------------------------------------------------------------------------------------------------------|------------------------------------------------|--------------------------------------------------------------------|
| For calendar plan year 2023 or fiscal plan year beginning <b>01/01/2023</b> and ending <b>12/31/2023</b> |                                                |                                                                    |
| <b>A</b> Name of plan<br><b>RHYTHM PHARMACEUTICALS INC. 401K PLAN</b>                                    | <b>B</b> Three-digit plan number (PN) <b>►</b> | <b>001</b>                                                         |
| <b>C</b> Plan sponsor's name as shown on line 2a of Form 5500<br><b>RHYTHM PHARMACEUTICALS INC.</b>      |                                                |                                                                    |
|                                                                                                          |                                                | <b>D</b> Employer Identification Number (EIN)<br><b>46-2159271</b> |

|               |                                      |
|---------------|--------------------------------------|
| <b>Part I</b> | <b>Asset and Liability Statement</b> |
|---------------|--------------------------------------|

**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 |
|----------------------------------------------------------------------------------------------------|-----------------|-----------------------|-----------------|
| <b>a</b> Total noninterest-bearing cash .....                                                      | <b>1a</b>       | 0                     | 0               |
| <b>b</b> Receivables (less allowance for doubtful accounts):                                       |                 |                       |                 |
| <b>(1)</b> Employer contributions .....                                                            | <b>1b(1)</b>    | 185298                | 182777          |
| <b>(2)</b> Participant contributions .....                                                         | <b>1b(2)</b>    | 0                     | 0               |
| <b>(3)</b> Other .....                                                                             | <b>1b(3)</b>    | 0                     | 0               |
| <b>c</b> General investments:                                                                      |                 |                       |                 |
| <b>(1)</b> Interest-bearing cash (include money market accounts & certificates of deposit) .....   | <b>1c(1)</b>    | 175375                | 184582          |
| <b>(2)</b> U.S. Government securities .....                                                        | <b>1c(2)</b>    | 0                     | 0               |
| <b>(3)</b> Corporate debt instruments (other than employer securities):                            |                 |                       |                 |
| <b>(A)</b> Preferred .....                                                                         | <b>1c(3)(A)</b> | 0                     | 0               |
| <b>(B)</b> All other .....                                                                         | <b>1c(3)(B)</b> | 0                     | 0               |
| <b>(4)</b> Corporate stocks (other than employer securities):                                      |                 |                       |                 |
| <b>(A)</b> Preferred .....                                                                         | <b>1c(4)(A)</b> | 0                     | 0               |
| <b>(B)</b> Common .....                                                                            | <b>1c(4)(B)</b> | 0                     | 0               |
| <b>(5)</b> Partnership/joint venture interests .....                                               | <b>1c(5)</b>    | 0                     | 0               |
| <b>(6)</b> Real estate (other than employer real property) .....                                   | <b>1c(6)</b>    | 0                     | 0               |
| <b>(7)</b> Loans (other than to participants) .....                                                | <b>1c(7)</b>    | 0                     | 0               |
| <b>(8)</b> Participant loans .....                                                                 | <b>1c(8)</b>    | 88461                 | 124266          |
| <b>(9)</b> Value of interest in common/collective trusts .....                                     | <b>1c(9)</b>    | 0                     | 0               |
| <b>(10)</b> Value of interest in pooled separate accounts .....                                    | <b>1c(10)</b>   | 0                     | 0               |
| <b>(11)</b> Value of interest in master trust investment accounts .....                            | <b>1c(11)</b>   | 0                     | 0               |
| <b>(12)</b> Value of interest in 103-12 investment entities .....                                  | <b>1c(12)</b>   | 0                     | 0               |
| <b>(13)</b> Value of interest in registered investment companies (e.g., mutual funds) .....        | <b>1c(13)</b>   | 10848760              | 16259100        |
| <b>(14)</b> Value of funds held in insurance company general account (unallocated contracts) ..... | <b>1c(14)</b>   | 0                     | 0               |
| <b>(15)</b> Other .....                                                                            | <b>1c(15)</b>   | 0                     | 0               |

|                                                                           |              |                       |                 |
|---------------------------------------------------------------------------|--------------|-----------------------|-----------------|
| <b>1d</b> Employer-related investments:                                   |              | (a) Beginning of Year | (b) End of Year |
| (1) Employer securities .....                                             | <b>1d(1)</b> | 0                     | 0               |
| (2) Employer real property .....                                          | <b>1d(2)</b> | 0                     | 0               |
| <b>e</b> Buildings and other property used in plan operation .....        | <b>1e</b>    | 0                     | 0               |
| <b>f</b> Total assets (add all amounts in lines 1a through 1e) .....      | <b>1f</b>    | 11297894              | 16750725        |
| <b>Liabilities</b>                                                        |              |                       |                 |
| <b>g</b> Benefit claims payable .....                                     | <b>1g</b>    | 0                     | 0               |
| <b>h</b> Operating payables .....                                         | <b>1h</b>    | 0                     | 0               |
| <b>i</b> Acquisition indebtedness .....                                   | <b>1i</b>    | 0                     | 0               |
| <b>j</b> Other liabilities .....                                          | <b>1j</b>    | 0                     | 0               |
| <b>k</b> Total liabilities (add all amounts in lines 1g through 1j) ..... | <b>1k</b>    | 0                     | 0               |
| <b>Net Assets</b>                                                         |              |                       |                 |
| <b>l</b> Net assets (subtract line 1k from line 1f) .....                 | <b>1l</b>    | 11297894              | 16750725        |

**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.

|                                                                                                            |                 |            |           |
|------------------------------------------------------------------------------------------------------------|-----------------|------------|-----------|
| <b>Income</b>                                                                                              |                 | (a) Amount | (b) Total |
| <b>a</b> Contributions:                                                                                    |                 |            |           |
| (1) Received or receivable in cash from: (A) Employers .....                                               | <b>2a(1)(A)</b> | 1459930    |           |
| (B) Participants .....                                                                                     | <b>2a(1)(B)</b> | 3055046    |           |
| (C) Others (including rollovers) .....                                                                     | <b>2a(1)(C)</b> | 422105     |           |
| (2) Noncash contributions .....                                                                            | <b>2a(2)</b>    | 0          |           |
| (3) Total contributions. Add lines <b>2a(1)(A)</b> , <b>(B)</b> , <b>(C)</b> , and line <b>2a(2)</b> ..... | <b>2a(3)</b>    |            | 4937081   |
| <b>b</b> Earnings on investments:                                                                          |                 |            |           |
| (1) Interest:                                                                                              |                 |            |           |
| (A) Interest-bearing cash (including money market accounts and certificates of deposit) .....              | <b>2b(1)(A)</b> | 9546       |           |
| (B) U.S. Government securities .....                                                                       | <b>2b(1)(B)</b> | 0          |           |
| (C) Corporate debt instruments .....                                                                       | <b>2b(1)(C)</b> | 0          |           |
| (D) Loans (other than to participants) .....                                                               | <b>2b(1)(D)</b> | 0          |           |
| (E) Participant loans .....                                                                                | <b>2b(1)(E)</b> | 7168       |           |
| (F) Other .....                                                                                            | <b>2b(1)(F)</b> | 0          |           |
| (G) Total interest. Add lines <b>2b(1)(A)</b> through <b>(F)</b> .....                                     | <b>2b(1)(G)</b> |            | 16714     |
| (2) Dividends: (A) Preferred stock .....                                                                   | <b>2b(2)(A)</b> | 0          |           |
| (B) Common stock .....                                                                                     | <b>2b(2)(B)</b> | 0          |           |
| (C) Registered investment company shares (e.g. mutual funds) .....                                         | <b>2b(2)(C)</b> | 359975     |           |
| (D) Total dividends. Add lines <b>2b(2)(A)</b> , <b>(B)</b> , and <b>(C)</b> .....                         | <b>2b(2)(D)</b> |            | 359975    |
| (3) Rents .....                                                                                            | <b>2b(3)</b>    |            | 0         |
| (4) Net gain (loss) on sale of assets: (A) Aggregate proceeds .....                                        | <b>2b(4)(A)</b> | 0          |           |
| (B) Aggregate carrying amount (see instructions) .....                                                     | <b>2b(4)(B)</b> | 0          |           |
| (C) Subtract line <b>2b(4)(B)</b> from line <b>2b(4)(A)</b> and enter result .....                         | <b>2b(4)(C)</b> |            |           |
| (5) Unrealized appreciation (depreciation) of assets: (A) Real estate .....                                | <b>2b(5)(A)</b> | 0          |           |
| (B) Other .....                                                                                            | <b>2b(5)(B)</b> | 0          |           |
| (C) Total unrealized appreciation of assets. Add lines <b>2b(5)(A)</b> and <b>(B)</b> .....                | <b>2b(5)(C)</b> |            |           |

|                                                                                                 |        | (a) Amount | (b) Total |
|-------------------------------------------------------------------------------------------------|--------|------------|-----------|
| (6) Net investment gain (loss) from common/collective trusts.....                               | 2b(6)  |            | 0         |
| (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) |            | 1966078   |
| c Other income .....                                                                            | 2c     |            | 0         |
| d Total income. Add all <b>income</b> amounts in column (b) and enter total .....               | 2d     |            | 7279848   |

**Expenses**

|                                                                                      |        |         |         |
|--------------------------------------------------------------------------------------|--------|---------|---------|
| e Benefit payment and payments to provide benefits:                                  |        |         |         |
| (1) Directly to participants or beneficiaries, including direct rollovers .....      | 2e(1)  | 1795364 |         |
| (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)  |         | 1795364 |
| f Corrective distributions (see instructions) .....                                  | 2f     |         | 8429    |
| 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)  | 20576   |         |
| (4) IQPA audit fees.....                                                             | 2i(4)  | 0       |         |
| (5) Investment advisory and investment management fees .....                         | 2i(5)  | 2648    |         |
| (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) |         | 23224   |
| j Total expenses. Add all <b>expense</b> amounts in column (b) and enter total ..... | 2j     |         | 1827017 |

**Net Income and Reconciliation**

|                                                          |       |  |         |
|----------------------------------------------------------|-------|--|---------|
| k Net income (loss). Subtract line 2j from line 2d ..... | 2k    |  | 5452831 |
| 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: **AAFCPAS, INC.**

(2) EIN: **04-2571780**

**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 |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------|-------------------------------------|--------|
| <b>a</b> 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.) .....                 |                                     | <input checked="" type="checkbox"/> |        |
| <b>b</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.) ..... |                                     | <input checked="" type="checkbox"/> |        |
| <b>c</b> 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.) .....                                                                                                                             |                                     | <input checked="" type="checkbox"/> |        |
| <b>d</b> 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.) .....                                                                                                                  |                                     | <input checked="" type="checkbox"/> |        |
| <b>e</b> Was this plan covered by a fidelity bond? .....                                                                                                                                                                                                                                                         | <input checked="" type="checkbox"/> |                                     | 500000 |
| <b>f</b> Did the plan have a loss, whether or not reimbursed by the plan's fidelity bond, that was caused by fraud or dishonesty? .....                                                                                                                                                                          |                                     | <input checked="" type="checkbox"/> |        |
| <b>g</b> 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? .....                                                                                                                                       |                                     | <input checked="" type="checkbox"/> |        |
| <b>h</b> 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? .....                                                                                                                             |                                     | <input checked="" type="checkbox"/> |        |
| <b>i</b> Did the plan have assets held for investment? (Attach schedule(s) of assets if "Yes" is checked, and see instructions for format requirements.) .....                                                                                                                                                   | <input checked="" type="checkbox"/> |                                     |        |
| <b>j</b> 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.) .....                                                                                     |                                     | <input checked="" type="checkbox"/> |        |
| <b>k</b> Were all the plan assets either distributed to participants or beneficiaries, transferred to another plan, or brought under the control of the PBGC? .....                                                                                                                                              |                                     | <input checked="" type="checkbox"/> |        |
| <b>l</b> Has the plan failed to provide any benefit when due under the plan? .....                                                                                                                                                                                                                               |                                     | <input checked="" type="checkbox"/> |        |
| <b>m</b> If this is an individual account plan, was there a blackout period? (See instructions and 29 CFR 2520.101-3.) .....                                                                                                                                                                                     |                                     | <input checked="" type="checkbox"/> |        |
| <b>n</b> 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. ....                                                                                                                         |                                     | <input checked="" type="checkbox"/> |        |

**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.)

| <b>5b(1)</b> Name of plan(s) | <b>5b(2)</b> EIN(s) | <b>5b(3)</b> 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 \_\_\_\_\_.

|                                                                                                                                                                                                                                                            |                                                                                                                                                                                                                                                                                                  |                                                                                                 |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------|
| <div>SCHEDULE R</div> <div>(Form 5500)</div> <div>Department of the Treasury</div> <div>Internal Revenue Service</div> <div>Department of Labor</div> <div>Employee Benefits Security Administration</div> <div>Pension Benefit Guaranty Corporation</div> | <div>Retirement Plan Information</div> <div>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).</div> <div>▶ File as an attachment to Form 5500.</div> | <div>OMB No. 1210-0110</div> <div>2023</div> <div>This Form is Open to Public Inspection.</div> |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------|

|                                                                                                          |                                                                         |  |
|----------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------|--|
| For calendar plan year 2023 or fiscal plan year beginning 01/01/2023 and ending 12/31/2023               |                                                                         |  |
| <div>A Name of plan</div> <div>RHYTHM PHARMACEUTICALS INC. 401K PLAN</div>                               | <div>B Three-digit plan number (PN)</div> <div>001</div>                |  |
| <div>C Plan sponsor's name as shown on line 2a of Form 5500</div> <div>RHYTHM PHARMACEUTICALS INC.</div> | <div>D Employer Identification Number (EIN)</div> <div>46-2159271</div> |  |

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

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

|                                                                                                                                                                                                                                                                                                                                                 |              |  |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------|--|
| <div>1 Total value of distributions paid in property other than in cash or the forms of property specified in the instructions.....</div>                                                                                                                                                                                                       | <div>1</div> |  |
| <div>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):</div> <div>EIN(s): 04-6568107</div> <div>Profit-sharing plans, ESOPs, and stock bonus plans, skip line 3.</div> |              |  |
| <div>3 Number of participants (living or deceased) whose benefits were distributed in a single sum, during the plan year .....</div>                                                                                                                                                                                                            | <div>3</div> |  |

|         |                                                                                                                                                                        |
|---------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 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.) |
|---------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

|                                                                                                                                                                                                                                                                                                                                                                         |                                                                                                  |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------|
| <div>4 Is the plan administrator making an election under Code section 412(d)(2) or ERISA section 302(d)(2)? .....</div> <div>If the plan is a defined benefit plan, go to line 8.</div>                                                                                                                                                                                | <div><input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A</div> |
| <div>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 _____</div> <div>If you completed line 5, complete lines 3, 9, and 10 of Schedule MB and do not complete the remainder of this schedule.</div> |                                                                                                  |
| <div>6 a Enter the minimum required contribution for this plan year (include any prior year accumulated funding deficiency not waived) .....</div>                                                                                                                                                                                                                      | <div>6a</div>                                                                                    |
| <div>b Enter the amount contributed by the employer to the plan for this plan year .....</div>                                                                                                                                                                                                                                                                          | <div>6b</div>                                                                                    |
| <div>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) .....</div>                                                                                                                                                                                                                    | <div>6c</div>                                                                                    |
| <div>If you completed line 6c, skip lines 8 and 9.</div>                                                                                                                                                                                                                                                                                                                |                                                                                                  |
| <div>7 Will the minimum funding amount reported on line 6c be met by the funding deadline? .....</div>                                                                                                                                                                                                                                                                  | <div><input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A</div> |
| <div>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? .....</div>                                                                                         | <div><input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A</div> |

|          |            |
|----------|------------|
| Part III | Amendments |
|----------|------------|

|                                                                                                                                                                                                                                 |                                                                                                                                          |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------|
| <div>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. ....</div> | <div><input type="checkbox"/> Increase <input type="checkbox"/> Decrease <input type="checkbox"/> Both <input type="checkbox"/> No</div> |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------|

|         |                                                                                                                                            |
|---------|--------------------------------------------------------------------------------------------------------------------------------------------|
| 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. |
|---------|--------------------------------------------------------------------------------------------------------------------------------------------|

|                                                                                                                                                                                                  |                                                                     |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------|
| <div>10 Were unallocated employer securities or proceeds from the sale of unallocated securities used to repay any exempt loan? .....</div>                                                      | <div><input type="checkbox"/> Yes <input type="checkbox"/> No</div> |
| <div>11 a Does the ESOP hold any preferred stock? .....</div>                                                                                                                                    | <div><input type="checkbox"/> Yes <input type="checkbox"/> No</div> |
| <div>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.) .....</div> | <div><input type="checkbox"/> Yes <input type="checkbox"/> No</div> |
| <div>12 Does the ESOP hold any stock that is not readily tradable on an established securities market? .....</div>                                                                               | <div><input type="checkbox"/> Yes <input type="checkbox"/> No</div> |

**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): \_\_\_\_\_

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                                                    |  |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------|--|
| <b>14</b> 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:<br><b>a</b> 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) .....<br><b>b</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) .....<br><b>c</b> 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) ..... | <b>14a</b><br><br><br><b>14b</b><br><br><b>14c</b> |  |
| <b>15</b> 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:<br><b>a</b> The corresponding number for the plan year immediately preceding the current plan year .....<br><b>b</b> The corresponding number for the second preceding plan year .....                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | <b>15a</b><br><br><b>15b</b>                       |  |
| <b>16</b> Information with respect to any employers who withdrew from the plan during the preceding plan year:<br><b>a</b> Enter the number of employers who withdrew during the preceding plan year .....<br><b>b</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 .....                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | <b>16a</b><br><br><b>16b</b>                       |  |
| <b>17</b> 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..... <input type="checkbox"/>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                                                    |  |

|                |                                                                                                   |
|----------------|---------------------------------------------------------------------------------------------------|
| <b>Part VI</b> | <b>Additional Information for Single-Employer and Multiemployer Defined Benefit Pension Plans</b> |
|----------------|---------------------------------------------------------------------------------------------------|

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |  |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|
| <b>18</b> 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..... <input type="checkbox"/>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |  |
| <b>19</b> If the total number of participants is 1,000 or more, complete lines (a) and (b):<br><b>a</b> Enter the percentage of plan assets held as:<br>Public Equity: _____% Private Equity: _____% Investment-Grade Debt and Interest Rate Hedging Assets: _____%<br>High-Yield Debt: _____% Real Assets: _____% Cash or Cash Equivalents: _____% Other: _____%<br><b>b</b> Provide the average duration of the Investment-Grade Debt and Interest Rate Hedging Assets:<br><input type="checkbox"/> 0-5 years <input type="checkbox"/> 5-10 years <input type="checkbox"/> 10-15 years <input type="checkbox"/> 15 years or more                                                                                                                                                                                                                                                                                                                                                                                                                                                              |  |
| <b>20 PBGC missed contribution reporting requirements.</b> If this is a multiemployer plan or a single-employer plan that is not covered by PBGC, skip line 20.<br><b>a</b> Is the amount of unpaid minimum required contributions for all years from Schedule SB (Form 5500) line 40 greater than zero? <input type="checkbox"/> Yes <input type="checkbox"/> No<br><b>b</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:<br><input type="checkbox"/> Yes.<br><input type="checkbox"/> 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.<br><input type="checkbox"/> 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.<br><input type="checkbox"/> No. Other. Provide explanation: _____ |  |

|                 |                                 |
|-----------------|---------------------------------|
| <b>Part VII</b> | <b>IRS Compliance Questions</b> |
|-----------------|---------------------------------|

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |  |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|
| <b>21a</b> 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? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No<br><b>21b</b> 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).<br><input type="checkbox"/> Design-based safe harbor method<br><input type="checkbox"/> "Prior year" ADP test<br><input checked="" type="checkbox"/> "Current year" ADP test<br><input type="checkbox"/> N/A |  |
| <b>22</b> 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 <u>06 / 30 / 2020</u> (MM/DD/YYYY) and the Opinion Letter serial number <u>Q702438A</u> .                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |  |



## **RHYTHM PHARMACEUTICALS INC. 401K PLAN**

**FINANCIAL STATEMENTS**

**AS OF DECEMBER 31, 2023 AND 2022 AND  
FOR THE YEAR ENDED DECEMBER 31, 2023**

## RHYTHM PHARMACEUTICALS INC. 401K PLAN

Contents  
December 31, 2023 and 2022

---

|                                                                                       | <b><u>Pages</u></b> |
|---------------------------------------------------------------------------------------|---------------------|
| <b>Independent Auditor's Report</b> .....                                             | 1 - 1B              |
| <b>Financial Statements:</b>                                                          |                     |
| Statements of Net Assets Available for Benefits .....                                 | 2                   |
| Statement of Changes in Net Assets Available for Benefits .....                       | 3                   |
| Notes to Financial Statements .....                                                   | 4 - 9               |
| <b>Supplemental Schedule:</b>                                                         |                     |
| Form 5500, Schedule H, Part IV, Line 4i - Schedule of Assets Held at End of Year..... | 10                  |

## Independent Auditor's Report

To the Plan Administrator of  
Rhythm Pharmaceuticals Inc. 401k Plan:

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

We have performed audits of the financial statements of Rhythm Pharmaceuticals Inc. 401k 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, 2023 and 2022, and the related statement of changes in net assets available for benefits for the year ended December 31, 2023, and the related notes to the financial statements.

Management, having determined it is permissible in the circumstances, has elected to have the audits of Rhythm Pharmaceuticals Inc. 401k 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).

Management has obtained certifications from a qualified institution as of December 31, 2023 and 2022, and for the year ended December 31, 2023, 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 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 Rhythm Pharmaceuticals Inc. 401k 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 Rhythm Pharmaceuticals Inc. 401k Plan's ability to continue as a going concern for one year after the date 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 Rhythm Pharmaceuticals Inc. 401k 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 Rhythm Pharmaceuticals Inc. 401k 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.

***Auditor's Responsibilities for the Audit of the Financial Statements*** (Continued)

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, Form 5500, Schedule H, Part IV, Line 4i - Schedule of Assets Held at End of Year as of December 31, 2023, 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 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 management determined meets the requirements of ERISA Section 103(a)(3)(C).

*AAFCPA, Inc.*

Westborough, Massachusetts  
October 7, 2024

**RHYTHM PHARMACEUTICALS INC. 401K PLAN**

Statements of Net Assets Available for Benefits  
December 31, 2023 and 2022

---

| <b>Assets</b>                            | <b>2023</b>                 | <b>2022</b>                 |
|------------------------------------------|-----------------------------|-----------------------------|
| Mutual funds, at fair value              | <u>\$ 16,443,682</u>        | <u>\$ 11,024,135</u>        |
| Receivables:                             |                             |                             |
| Employer contributions                   | 182,777                     | 185,298                     |
| Notes receivable from participants       | <u>124,266</u>              | <u>88,461</u>               |
| Total receivables                        | <u>307,043</u>              | <u>273,759</u>              |
| <b>Net Assets Available for Benefits</b> | <u><u>\$ 16,750,725</u></u> | <u><u>\$ 11,297,894</u></u> |

**RHYTHM PHARMACEUTICALS INC. 401K PLAN**Statement of Changes in Net Assets Available for Benefits  
For the Year Ended December 31, 2023

---

**Additions to Net Assets Attributed to:**

## Investment income:

|                                  |                |
|----------------------------------|----------------|
| Net appreciation of mutual funds | \$ 1,966,078   |
| Interest and dividends           | <u>369,521</u> |

|                         |                  |
|-------------------------|------------------|
| Total investment income | <u>2,335,599</u> |
|-------------------------|------------------|

|                                                       |              |
|-------------------------------------------------------|--------------|
| Interest income on notes receivable from participants | <u>7,168</u> |
|-------------------------------------------------------|--------------|

## Contributions:

|             |                |
|-------------|----------------|
| Participant | 3,055,046      |
| Employer    | 1,459,930      |
| Rollover    | <u>422,105</u> |

|                     |                  |
|---------------------|------------------|
| Total contributions | <u>4,937,081</u> |
|---------------------|------------------|

|                 |                  |
|-----------------|------------------|
| Total additions | <u>7,279,848</u> |
|-----------------|------------------|

**Deductions from Net Assets Attributed to:**

|                               |               |
|-------------------------------|---------------|
| Benefits paid to participants | 1,803,793     |
| Administrative expenses       | <u>23,224</u> |

|                  |                  |
|------------------|------------------|
| Total deductions | <u>1,827,017</u> |
|------------------|------------------|

|              |           |
|--------------|-----------|
| Net increase | 5,452,831 |
|--------------|-----------|

**Net Assets Available for Benefits:**

|                   |                   |
|-------------------|-------------------|
| Beginning of year | <u>11,297,894</u> |
|-------------------|-------------------|

|             |                             |
|-------------|-----------------------------|
| End of year | <u><u>\$ 16,750,725</u></u> |
|-------------|-----------------------------|

## RHYTHM PHARMACEUTICALS INC. 401K PLAN

Notes to Financial Statements  
December 31, 2023 and 2022

---

### 1. DESCRIPTION OF PLAN

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

#### a. General

The Plan is a defined contribution 401(k) plan covering all employees of Rhythm Pharmaceuticals, Inc. (the Plan Sponsor) (the Company). The Plan is subject to the provisions of the Employee Retirement Income Security Act of 1974 (ERISA). The Plan Administrator is charged with governance and oversight of the Plan, and determines the appropriateness of investment offerings and monitors investment performance.

#### b. Eligibility

Employees become eligible to participate in the Plan and receive discretionary matching contributions and discretionary non-elective employer contributions upon hire, and may enter the plan on the first day of the month following their date of hire. In order to be eligible for the discretionary non-elective employer contribution, the participant must be employed at year-end, unless terminated due to death, disability or retirement.

#### c. Contributions

Each year, participants may contribute up to 90% of pre-tax annual compensation, as defined in the Plan, up to the maximum allowed by the Internal Revenue Service (IRS). The Plan allows for catch-up contributions for participants who have attained age fifty by the end of the plan year. The Plan allows participants to make post-tax (Roth) contributions. Participants may contribute amounts representing distributions from other qualified retirement plans (rollover contributions). Participants direct the investment of their contributions into various investment options offered by the Plan. Participants are auto enrolled into the Plan at 1%, and may opt-out or elect a different deferral amount at any time.

The Company makes a discretionary matching employer contribution of 100% of the first 4% of eligible compensation that a participant contributes to the Plan. During 2023, the Company funded a discretionary matching employer contribution of \$1,459,930. The Plan allows for a true-up matching contribution to be made. True-up matching contributions totaled \$182,777 for the year ended December 31, 2023, which is included in employer contributions in the accompanying statement of changes in net assets available for benefits.

The Company did not make any discretionary non-elective employer contributions during the year ended December 31, 2023.

#### d. Participant Accounts

Each participant's account is credited with the participant's contributions, allocations of the Plan Sponsor contributions, if any, and Plan earnings or losses, and charged with an allocation of administrative expenses that are paid by the plan. Allocations are based on participant's earnings or losses, account balances, or specific participant transactions, as defined in the plan document. The benefit to which a participant is entitled to is the benefit that can be provided from the participant's vested account.

## RHYTHM PHARMACEUTICALS INC. 401K PLAN

Notes to Financial Statements  
December 31, 2023 and 2022

---

### 1. DESCRIPTION OF PLAN (Continued)

#### e. Vesting

Participants are fully vested in their own contributions, rollover balances, discretionary matching employer contributions and earnings thereon. Participants vest in the Company's discretionary non-elective employer contributions based on years of service as follows:

| <u>Years of Service</u> | <u>Percentage</u> |
|-------------------------|-------------------|
| 1 year                  | 0%                |
| 2 years                 | 20%               |
| 3 years                 | 40%               |
| 4 years                 | 60%               |
| 5 years                 | 80%               |
| 6 or more years         | 100%              |

Participants become fully vested upon attainment of normal retirement age, death or disability.

#### f. Payment of Benefits

Upon normal retirement at age 65, with no option for early retirement, or termination of services, a participant may elect to receive either a lump-sum payment equal to the value of the participant's vested account balance, partial withdrawals, or leave their balance in the Plan if the balance is over \$5,000. The Plan requires balances up to \$1,000 to be paid out to participants upon termination and requires balances from \$1,000 to \$5,000 be rolled over to an individual retirement account (IRA). There are also retirement benefits available upon disability or death.

The Plan allows for in-service withdrawals upon attainment of age 59 ½. A participant could also request a withdrawal upon demonstration to the Plan Administrator that they were suffering a "hardship". Hardship is defined in applicable regulations promulgated or to be promulgated pursuant to the applicable section of the Internal Revenue Code (IRC) or standards established by the Secretary of Treasury or their delegate.

#### g. Notes Receivable from Participants

Participants may borrow from their accounts a minimum of \$1,000 up to a maximum equal to the lesser of \$50,000 or one-half of their vested account balance. Loan terms range from one to five years, unless for the purchase of a primary residence, in which the term is ten years. The loans are secured by the balance in the participant's account. The interest rate is set at a commercially reasonable rate determined by the Plan Administrator. Participants may have one loan outstanding at any time. Principal and interest are paid ratably through payroll deductions.

#### h. Forfeited Accounts

Forfeitures represent non-vested discretionary non-elective employer contributions of participants who terminate their employment or who withdraw from the Plan. Forfeitures are retained by the Plan and are used to reduce future Company contributions and plan expenses. The Plan applied \$19,682 of unallocated forfeitures to pay for administrative expenses during the year ended December 31, 2023. At December 31, 2023 and 2022, unallocated forfeited accounts totaled \$6 and \$13,535, respectively.

## RHYTHM PHARMACEUTICALS INC. 401K PLAN

Notes to Financial Statements  
December 31, 2023 and 2022

---

### 1. DESCRIPTION OF PLAN (Continued)

#### i. Secure Act 2.0

On December 29, 2022, the Consolidated Appropriations Act of 2023, which included SECURE Act 2.0, was executed. SECURE Act 2.0 contains over ninety new retirement provisions, with varying effective dates through 2027. Since SECURE Act 2.0 provisions include both required and optional elements, the Plan Administrator will determine the optional provisions to elect and amend the plan document accordingly. Most of the significant provisions will become effective in 2024, and thereafter. Accordingly, there is no material impact to the Plan's 2023 financial statements.

### 2. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

#### Basis of Presentation

The Plan prepares its financial statements in accordance with generally accepted accounting principles (U.S. GAAP) established by the Financial Accounting Standards Board (FASB). References to U.S. GAAP in these notes are to the FASB Accounting Standards Codification (ASC).

#### 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 at the date of the financial statements. Actual results could differ from those estimates.

#### 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. See Note 4 for disclosure of fair value measurement.

The assets of the Plan are invested in mutual funds. Mutual fund investments are stated at fair market value as determined by the qualified institution based upon the last reported sales price on the last business day of the plan year. Gains and losses are recognized as incurred upon sale or maturity of investments or based on market value changes during the period.

Purchases and sales of investments are recorded on a trade-date basis. Interest income, including interest income on notes receivable from participants, is recorded on the accrual basis. Dividends are recorded on the ex-dividend date. Net appreciation of mutual funds includes realized and unrealized gains and losses.

#### Notes Receivable from Participants

Notes receivable from participants are measured at their unpaid principal balance plus any accrued but unpaid interest. Interest income on notes receivable from participants is recorded on the accrual basis. Related fees are recorded as administrative expenses and are expensed when incurred. No allowances for credit losses have been recorded as of December 31, 2023 and 2022. If a participant ceases to make loan repayments and the Plan Administrator deems the participant loan to be in default, the participant loan balance is reduced, and a benefit payment is recorded. There were no defaulted loans as of December 31, 2023.

**2. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (Continued)**

**Contributions**

Contributions from Plan participants and the discretionary matching employer contribution are recorded in the year in which the participant contributions are withheld from compensation. The discretionary non-elective employer contributions are recorded when such contributions are authorized by the Plan Sponsor.

**Payment of Benefits**

Benefits are recorded when paid.

**Administrative Expenses**

Certain expenses of maintaining the Plan are paid directly by the Plan Sponsor and are excluded from these financial statements. Asset management and fees related to the administration of notes receivable from participants and processing of distributions are charged directly to the participant's account and are included in administrative expenses. Investment related expenses are included in net appreciation of mutual funds.

**Subsequent Events**

Subsequent events have been evaluated through October 7, 2024, which is the date the financial statements were available to be issued. There were no other events that met the criteria for recognition or disclosure in the financial statements, except as noted in Note 9.

**3. INFORMATION PREPARED AND CERTIFIED BY THE PLAN'S QUALIFIED INSTITUTION**

The Plan Administrator has elected the method of annual reporting compliance permitted by 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, Fidelity Management Trust Company (Fidelity), qualified institution, has certified to 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, 2023 and 2022, and the supplemental schedule, Form 5500, Schedule H, Part IV, Line 4i - Schedule of Assets Held at End of Year as of December 31, 2023, and the related investment transactions and investment income and interest income on notes receivable from participants reported in the accompanying statement of changes in net assets available for benefits for the year ended December 31, 2023.

At the request of the Plan Administrator, the Plan's independent auditors did not perform auditing procedures with respect to certified investment information, except for comparing such certified investment information included in the accompanying financial statements and supplemental schedule.

**4. FAIR VALUE MEASUREMENT**

Fair value is defined as the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants as of the measurement date. *Fair Value Measurement* establishes a hierarchy of the valuation techniques based upon whether the inputs to those valuation techniques reflect assumptions other market participants would use based upon market data obtained from independent sources (also referred to as observable inputs).

## RHYTHM PHARMACEUTICALS INC. 401K PLAN

Notes to Financial Statements  
December 31, 2023 and 2022

---

### 4. FAIR VALUE MEASUREMENT (Continued)

The fair value hierarchy is 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; 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 methodology are unobservable and significant to the fair value measurement.

The asset 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.

Following is a description of the valuation methodology used for assets measured at fair value:

*Mutual funds* - Valued at the daily closing price as reported by the funds. Mutual funds held by the Plan are open-ended mutual funds that are registered with the Securities and Exchange Commission. These funds are required to publish their daily net asset value (NAV) and to transact at that price and, accordingly, these investments are valued using observable inputs. The mutual funds held by the Plan are deemed to be actively traded.

There has been no change in the methodology used at December 31, 2023 and 2022.

The preceding method described may produce a fair value calculation that may not be indicative of net realizable value or reflective of future values. Furthermore, although the Plan believes its valuation method is 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.

The following tables present by level, within the fair value hierarchy, the Plan's assets at fair value as of December 31:

| <u>Description</u>          | <u>2023</u>          |                |                |                      |
|-----------------------------|----------------------|----------------|----------------|----------------------|
|                             | <u>Level 1</u>       | <u>Level 2</u> | <u>Level 3</u> | <u>Total</u>         |
| Mutual funds, at fair value | <u>\$ 16,443,682</u> | <u>\$ -</u>    | <u>\$ -</u>    | <u>\$ 16,443,682</u> |

  

| <u>Description</u>          | <u>2022</u>          |                |                |                      |
|-----------------------------|----------------------|----------------|----------------|----------------------|
|                             | <u>Level 1</u>       | <u>Level 2</u> | <u>Level 3</u> | <u>Total</u>         |
| Mutual funds, at fair value | <u>\$ 11,024,135</u> | <u>\$ -</u>    | <u>\$ -</u>    | <u>\$ 11,024,135</u> |

## **RHYTHM PHARMACEUTICALS INC. 401K PLAN**

Notes to Financial Statements  
December 31, 2023 and 2022

---

### **5. PLAN TERMINATION**

Although it has not expressed any intent to do so, the Company has the right under the Plan to terminate the Plan subject to the provisions of ERISA. In the event of plan termination, participants will become fully vested in their non-elective contributions, and all accrued benefits shall be paid to participants in accordance with the provisions of the Plan.

### **6. RELATED PARTY AND PARTY-IN-INTEREST TRANSACTIONS**

Section 3(14) of ERISA defines a party-in-interest to include, among others, fiduciaries or employees of the Plan, any person who provides services to the Plan or an employer whose employees are covered by the Plan. Accordingly, notes receivable from participants and transactions with investment funds managed and held by the qualified institution are considered party-in-interest transactions. During 2023, the Plan paid the qualified institution and investment advisor administrative expenses totaling \$23,224.

### **7. TAX STATUS**

The Plan Sponsor has obtained an opinion dated June 30, 2020, in which the IRS stated that the restated prototype plan document was in compliance with applicable requirements of the IRC. The Plan Administrator timely adopted the restated prototype plan. Although the Plan has been amended since receiving the opinion letter, the Plan Administrator believes that the Plan is currently being operated in accordance with the IRC.

U.S. GAAP requires Plan management to evaluate tax positions taken by the Plan and recognize a tax liability (or asset) if the Plan has taken an uncertain tax position that more-likely-than-not would not be sustained upon examination by the applicable authorities. The Plan is subject to routine audits by taxing jurisdictions; however, there are currently no audits for any tax periods in progress.

### **8. RISKS AND UNCERTAINTIES**

The Plan invests in various investments. These investments are exposed to various risks, such as interest rate, market and credit risks. Due to the level of risk associated with these investments, it is at least reasonably possible that changes in the values of investments will occur in the near term and that these changes could materially affect participant account balances and the amounts reported in the accompanying statements of net assets available for benefits.

### **9. SUBSEQUENT EVENT**

Subsequent to year end, the Plan was amended for the following provisions:

- To change the age requirement to 18 years of age.
- To require one month of service to be eligible for all contribution types.
- To allow active military distributions and normal retirement age distributions.

**RHYTHM PHARMACEUTICALS INC. 401K PLAN**  
**PLAN NO. 001, FEDERAL I.D. #46-2159271**

Form 5500, Schedule H, Part IV, Line 4i - Schedule of Assets Held at End of Year  
December 31, 2023

| (a)               | (b)                                                                           | (c)                                                                                                       | (d)  | (e)                  |
|-------------------|-------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------|------|----------------------|
| Party-In-Interest | Identity of Issue, Borrower, Lessor, or Similar Party                         | Description of Investments, Including Maturity Date, Rate of Interest, Collateral, Par, or Maturity Value | Cost | Current Value        |
| *                 | Fidelity Freedom Index 2035 Fund Investor Class                               | Mutual Fund                                                                                               | **   | \$ 2,385,691         |
| *                 | Fidelity Freedom Index 2045 Fund Investor Class                               | Mutual Fund                                                                                               | **   | 1,945,329            |
|                   | Vanguard 500 Index Fund Admiral Shares                                        | Mutual Fund                                                                                               | **   | 1,648,303            |
| *                 | Fidelity Freedom Index 2050 Fund Investor Class                               | Mutual Fund                                                                                               | **   | 1,605,937            |
| *                 | Fidelity Freedom Index 2040 Fund Investor Class                               | Mutual Fund                                                                                               | **   | 1,106,184            |
| *                 | Fidelity Freedom Index 2030 Fund Investor Class                               | Mutual Fund                                                                                               | **   | 1,017,802            |
| *                 | Fidelity Freedom Index 2055 Fund Investor Class                               | Mutual Fund                                                                                               | **   | 1,017,265            |
| *                 | Fidelity Freedom Index 2025 Fund Investor Class                               | Mutual Fund                                                                                               | **   | 832,740              |
|                   | Vanguard Balanced Index Fund Admiral Shares                                   | Mutual Fund                                                                                               | **   | 676,568              |
|                   | Vanguard Extended Market Index Fund Admiral Shares                            | Mutual Fund                                                                                               | **   | 453,240              |
|                   | Vanguard Total Stock Market Index Fund Admiral Shares                         | Mutual Fund                                                                                               | **   | 370,737              |
| *                 | Fidelity Freedom Index 2060 Fund Investor Class                               | Mutual Fund                                                                                               | **   | 323,993              |
|                   | Vanguard Developed Markets Index Fund Admiral Shares                          | Mutual Fund                                                                                               | **   | 311,805              |
|                   | Victory Sycamore Established Value Fund Class R6                              | Mutual Fund                                                                                               | **   | 310,732              |
|                   | Vanguard Mid-Cap Growth Index Fund Admiral Shares                             | Mutual Fund                                                                                               | **   | 270,541              |
|                   | DFA Emerging Markets Core Equity Portfolio Institutional Class                | Mutual Fund                                                                                               | **   | 224,435              |
|                   | MFS International Growth Fund Class R6                                        | Mutual Fund                                                                                               | **   | 210,645              |
|                   | Vanguard Federal Money Market Fund                                            | Mutual Fund                                                                                               | **   | 184,582              |
|                   | MFS Value Fund Class R6                                                       | Mutual Fund                                                                                               | **   | 181,089              |
|                   | Vanguard Intermediate-Term Bond Index Fund Admiral Shares                     | Mutual Fund                                                                                               | **   | 179,813              |
|                   | Vanguard Small-Cap Index Fund Admiral Shares                                  | Mutual Fund                                                                                               | **   | 158,120              |
|                   | Vanguard Short-Term Investment-Grade Fund Admiral Shares                      | Mutual Fund                                                                                               | **   | 150,110              |
|                   | DFA International Core Equity I                                               | Mutual Fund                                                                                               | **   | 141,207              |
|                   | Hartford Core Equity Fund Class R6                                            | Mutual Fund                                                                                               | **   | 135,578              |
| *                 | Fidelity Freedom Index 2020 Fund Investor Class                               | Mutual Fund                                                                                               | **   | 122,064              |
|                   | Vanguard Small-Cap Value Index Fund Admiral Shares                            | Mutual Fund                                                                                               | **   | 110,602              |
|                   | Vanguard Explorer Fund Admiral Shares                                         | Mutual Fund                                                                                               | **   | 89,228               |
|                   | DFA Global Real Estate Securities Portfolio                                   | Mutual Fund                                                                                               | **   | 70,017               |
|                   | PGIM Global Total Return R6                                                   | Mutual Fund                                                                                               | **   | 67,439               |
| *                 | Fidelity Freedom Index 2015 Fund Investor Class                               | Mutual Fund                                                                                               | **   | 64,466               |
|                   | DFA Intermediate Government Fixed Income Portfolio Institutional Class        | Mutual Fund                                                                                               | **   | 52,004               |
|                   | DFA Inflation-Protected Securities Portfolio                                  | Mutual Fund                                                                                               | **   | 21,659               |
| *                 | Fidelity Freedom Index 2065 Fund Investor Class                               | Mutual Fund                                                                                               | **   | 3,757                |
| *                 | Notes Receivable from Participants                                            | Interest rates ranging from 4.25% to 9.25%, maturing through June 2028                                    | -    | 124,266              |
|                   |                                                                               |                                                                                                           |      | <u>\$ 16,567,948</u> |
| *                 | Party-In-Interest                                                             |                                                                                                           |      |                      |
| **                | The cost of participant-directed investments is not required to be disclosed. |                                                                                                           |      |                      |



## **RHYTHM PHARMACEUTICALS INC. 401K PLAN**

**FINANCIAL STATEMENTS**

**AS OF DECEMBER 31, 2023 AND 2022 AND  
FOR THE YEAR ENDED DECEMBER 31, 2023**

## RHYTHM PHARMACEUTICALS INC. 401K PLAN

Contents  
December 31, 2023 and 2022

---

|                                                                                       | <b><u>Pages</u></b> |
|---------------------------------------------------------------------------------------|---------------------|
| <b>Independent Auditor's Report</b> .....                                             | 1 - 1B              |
| <b>Financial Statements:</b>                                                          |                     |
| Statements of Net Assets Available for Benefits .....                                 | 2                   |
| Statement of Changes in Net Assets Available for Benefits .....                       | 3                   |
| Notes to Financial Statements .....                                                   | 4 - 9               |
| <b>Supplemental Schedule:</b>                                                         |                     |
| Form 5500, Schedule H, Part IV, Line 4i - Schedule of Assets Held at End of Year..... | 10                  |

## Independent Auditor's Report

To the Plan Administrator of  
Rhythm Pharmaceuticals Inc. 401k Plan:

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

We have performed audits of the financial statements of Rhythm Pharmaceuticals Inc. 401k 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, 2023 and 2022, and the related statement of changes in net assets available for benefits for the year ended December 31, 2023, and the related notes to the financial statements.

Management, having determined it is permissible in the circumstances, has elected to have the audits of Rhythm Pharmaceuticals Inc. 401k 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).

Management has obtained certifications from a qualified institution as of December 31, 2023 and 2022, and for the year ended December 31, 2023, 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 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 Rhythm Pharmaceuticals Inc. 401k 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 Rhythm Pharmaceuticals Inc. 401k Plan's ability to continue as a going concern for one year after the date 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 Rhythm Pharmaceuticals Inc. 401k 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 Rhythm Pharmaceuticals Inc. 401k 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.

***Auditor's Responsibilities for the Audit of the Financial Statements*** (Continued)

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, Form 5500, Schedule H, Part IV, Line 4i - Schedule of Assets Held at End of Year as of December 31, 2023, 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 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 management determined meets the requirements of ERISA Section 103(a)(3)(C).

*AAFCPA, Inc.*

Westborough, Massachusetts  
October 7, 2024

**RHYTHM PHARMACEUTICALS INC. 401K PLAN**

Statements of Net Assets Available for Benefits  
December 31, 2023 and 2022

---

| <b>Assets</b>                            | <b>2023</b>                 | <b>2022</b>                 |
|------------------------------------------|-----------------------------|-----------------------------|
| Mutual funds, at fair value              | <u>\$ 16,443,682</u>        | <u>\$ 11,024,135</u>        |
| Receivables:                             |                             |                             |
| Employer contributions                   | 182,777                     | 185,298                     |
| Notes receivable from participants       | <u>124,266</u>              | <u>88,461</u>               |
| Total receivables                        | <u>307,043</u>              | <u>273,759</u>              |
| <b>Net Assets Available for Benefits</b> | <u><u>\$ 16,750,725</u></u> | <u><u>\$ 11,297,894</u></u> |

**RHYTHM PHARMACEUTICALS INC. 401K PLAN**Statement of Changes in Net Assets Available for Benefits  
For the Year Ended December 31, 2023

---

**Additions to Net Assets Attributed to:**

## Investment income:

|                                  |                |
|----------------------------------|----------------|
| Net appreciation of mutual funds | \$ 1,966,078   |
| Interest and dividends           | <u>369,521</u> |

|                         |                  |
|-------------------------|------------------|
| Total investment income | <u>2,335,599</u> |
|-------------------------|------------------|

|                                                       |              |
|-------------------------------------------------------|--------------|
| Interest income on notes receivable from participants | <u>7,168</u> |
|-------------------------------------------------------|--------------|

## Contributions:

|             |                |
|-------------|----------------|
| Participant | 3,055,046      |
| Employer    | 1,459,930      |
| Rollover    | <u>422,105</u> |

|                     |                  |
|---------------------|------------------|
| Total contributions | <u>4,937,081</u> |
|---------------------|------------------|

|                 |                  |
|-----------------|------------------|
| Total additions | <u>7,279,848</u> |
|-----------------|------------------|

**Deductions from Net Assets Attributed to:**

|                               |               |
|-------------------------------|---------------|
| Benefits paid to participants | 1,803,793     |
| Administrative expenses       | <u>23,224</u> |

|                  |                  |
|------------------|------------------|
| Total deductions | <u>1,827,017</u> |
|------------------|------------------|

|              |           |
|--------------|-----------|
| Net increase | 5,452,831 |
|--------------|-----------|

**Net Assets Available for Benefits:**

|                   |                   |
|-------------------|-------------------|
| Beginning of year | <u>11,297,894</u> |
|-------------------|-------------------|

|             |                             |
|-------------|-----------------------------|
| End of year | <u><u>\$ 16,750,725</u></u> |
|-------------|-----------------------------|

## RHYTHM PHARMACEUTICALS INC. 401K PLAN

Notes to Financial Statements  
December 31, 2023 and 2022

---

### 1. DESCRIPTION OF PLAN

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

#### a. General

The Plan is a defined contribution 401(k) plan covering all employees of Rhythm Pharmaceuticals, Inc. (the Plan Sponsor) (the Company). The Plan is subject to the provisions of the Employee Retirement Income Security Act of 1974 (ERISA). The Plan Administrator is charged with governance and oversight of the Plan, and determines the appropriateness of investment offerings and monitors investment performance.

#### b. Eligibility

Employees become eligible to participate in the Plan and receive discretionary matching contributions and discretionary non-elective employer contributions upon hire, and may enter the plan on the first day of the month following their date of hire. In order to be eligible for the discretionary non-elective employer contribution, the participant must be employed at year-end, unless terminated due to death, disability or retirement.

#### c. Contributions

Each year, participants may contribute up to 90% of pre-tax annual compensation, as defined in the Plan, up to the maximum allowed by the Internal Revenue Service (IRS). The Plan allows for catch-up contributions for participants who have attained age fifty by the end of the plan year. The Plan allows participants to make post-tax (Roth) contributions. Participants may contribute amounts representing distributions from other qualified retirement plans (rollover contributions). Participants direct the investment of their contributions into various investment options offered by the Plan. Participants are auto enrolled into the Plan at 1%, and may opt-out or elect a different deferral amount at any time.

The Company makes a discretionary matching employer contribution of 100% of the first 4% of eligible compensation that a participant contributes to the Plan. During 2023, the Company funded a discretionary matching employer contribution of \$1,459,930. The Plan allows for a true-up matching contribution to be made. True-up matching contributions totaled \$182,777 for the year ended December 31, 2023, which is included in employer contributions in the accompanying statement of changes in net assets available for benefits.

The Company did not make any discretionary non-elective employer contributions during the year ended December 31, 2023.

#### d. Participant Accounts

Each participant's account is credited with the participant's contributions, allocations of the Plan Sponsor contributions, if any, and Plan earnings or losses, and charged with an allocation of administrative expenses that are paid by the plan. Allocations are based on participant's earnings or losses, account balances, or specific participant transactions, as defined in the plan document. The benefit to which a participant is entitled to is the benefit that can be provided from the participant's vested account.

## RHYTHM PHARMACEUTICALS INC. 401K PLAN

Notes to Financial Statements  
December 31, 2023 and 2022

---

### 1. DESCRIPTION OF PLAN (Continued)

#### e. Vesting

Participants are fully vested in their own contributions, rollover balances, discretionary matching employer contributions and earnings thereon. Participants vest in the Company's discretionary non-elective employer contributions based on years of service as follows:

| <u>Years of Service</u> | <u>Percentage</u> |
|-------------------------|-------------------|
| 1 year                  | 0%                |
| 2 years                 | 20%               |
| 3 years                 | 40%               |
| 4 years                 | 60%               |
| 5 years                 | 80%               |
| 6 or more years         | 100%              |

Participants become fully vested upon attainment of normal retirement age, death or disability.

#### f. Payment of Benefits

Upon normal retirement at age 65, with no option for early retirement, or termination of services, a participant may elect to receive either a lump-sum payment equal to the value of the participant's vested account balance, partial withdrawals, or leave their balance in the Plan if the balance is over \$5,000. The Plan requires balances up to \$1,000 to be paid out to participants upon termination and requires balances from \$1,000 to \$5,000 be rolled over to an individual retirement account (IRA). There are also retirement benefits available upon disability or death.

The Plan allows for in-service withdrawals upon attainment of age 59 ½. A participant could also request a withdrawal upon demonstration to the Plan Administrator that they were suffering a "hardship". Hardship is defined in applicable regulations promulgated or to be promulgated pursuant to the applicable section of the Internal Revenue Code (IRC) or standards established by the Secretary of Treasury or their delegate.

#### g. Notes Receivable from Participants

Participants may borrow from their accounts a minimum of \$1,000 up to a maximum equal to the lesser of \$50,000 or one-half of their vested account balance. Loan terms range from one to five years, unless for the purchase of a primary residence, in which the term is ten years. The loans are secured by the balance in the participant's account. The interest rate is set at a commercially reasonable rate determined by the Plan Administrator. Participants may have one loan outstanding at any time. Principal and interest are paid ratably through payroll deductions.

#### h. Forfeited Accounts

Forfeitures represent non-vested discretionary non-elective employer contributions of participants who terminate their employment or who withdraw from the Plan. Forfeitures are retained by the Plan and are used to reduce future Company contributions and plan expenses. The Plan applied \$19,682 of unallocated forfeitures to pay for administrative expenses during the year ended December 31, 2023. At December 31, 2023 and 2022, unallocated forfeited accounts totaled \$6 and \$13,535, respectively.

## RHYTHM PHARMACEUTICALS INC. 401K PLAN

Notes to Financial Statements  
December 31, 2023 and 2022

---

### 1. DESCRIPTION OF PLAN (Continued)

#### i. Secure Act 2.0

On December 29, 2022, the Consolidated Appropriations Act of 2023, which included SECURE Act 2.0, was executed. SECURE Act 2.0 contains over ninety new retirement provisions, with varying effective dates through 2027. Since SECURE Act 2.0 provisions include both required and optional elements, the Plan Administrator will determine the optional provisions to elect and amend the plan document accordingly. Most of the significant provisions will become effective in 2024, and thereafter. Accordingly, there is no material impact to the Plan's 2023 financial statements.

### 2. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

#### Basis of Presentation

The Plan prepares its financial statements in accordance with generally accepted accounting principles (U.S. GAAP) established by the Financial Accounting Standards Board (FASB). References to U.S. GAAP in these notes are to the FASB Accounting Standards Codification (ASC).

#### 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 at the date of the financial statements. Actual results could differ from those estimates.

#### 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. See Note 4 for disclosure of fair value measurement.

The assets of the Plan are invested in mutual funds. Mutual fund investments are stated at fair market value as determined by the qualified institution based upon the last reported sales price on the last business day of the plan year. Gains and losses are recognized as incurred upon sale or maturity of investments or based on market value changes during the period.

Purchases and sales of investments are recorded on a trade-date basis. Interest income, including interest income on notes receivable from participants, is recorded on the accrual basis. Dividends are recorded on the ex-dividend date. Net appreciation of mutual funds includes realized and unrealized gains and losses.

#### Notes Receivable from Participants

Notes receivable from participants are measured at their unpaid principal balance plus any accrued but unpaid interest. Interest income on notes receivable from participants is recorded on the accrual basis. Related fees are recorded as administrative expenses and are expensed when incurred. No allowances for credit losses have been recorded as of December 31, 2023 and 2022. If a participant ceases to make loan repayments and the Plan Administrator deems the participant loan to be in default, the participant loan balance is reduced, and a benefit payment is recorded. There were no defaulted loans as of December 31, 2023.

**2. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (Continued)**

**Contributions**

Contributions from Plan participants and the discretionary matching employer contribution are recorded in the year in which the participant contributions are withheld from compensation. The discretionary non-elective employer contributions are recorded when such contributions are authorized by the Plan Sponsor.

**Payment of Benefits**

Benefits are recorded when paid.

**Administrative Expenses**

Certain expenses of maintaining the Plan are paid directly by the Plan Sponsor and are excluded from these financial statements. Asset management and fees related to the administration of notes receivable from participants and processing of distributions are charged directly to the participant's account and are included in administrative expenses. Investment related expenses are included in net appreciation of mutual funds.

**Subsequent Events**

Subsequent events have been evaluated through October 7, 2024, which is the date the financial statements were available to be issued. There were no other events that met the criteria for recognition or disclosure in the financial statements, except as noted in Note 9.

**3. INFORMATION PREPARED AND CERTIFIED BY THE PLAN'S QUALIFIED INSTITUTION**

The Plan Administrator has elected the method of annual reporting compliance permitted by 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, Fidelity Management Trust Company (Fidelity), qualified institution, has certified to 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, 2023 and 2022, and the supplemental schedule, Form 5500, Schedule H, Part IV, Line 4i - Schedule of Assets Held at End of Year as of December 31, 2023, and the related investment transactions and investment income and interest income on notes receivable from participants reported in the accompanying statement of changes in net assets available for benefits for the year ended December 31, 2023.

At the request of the Plan Administrator, the Plan's independent auditors did not perform auditing procedures with respect to certified investment information, except for comparing such certified investment information included in the accompanying financial statements and supplemental schedule.

**4. FAIR VALUE MEASUREMENT**

Fair value is defined as the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants as of the measurement date. *Fair Value Measurement* establishes a hierarchy of the valuation techniques based upon whether the inputs to those valuation techniques reflect assumptions other market participants would use based upon market data obtained from independent sources (also referred to as observable inputs).

## RHYTHM PHARMACEUTICALS INC. 401K PLAN

Notes to Financial Statements  
December 31, 2023 and 2022

---

### 4. FAIR VALUE MEASUREMENT (Continued)

The fair value hierarchy is 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; 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 methodology are unobservable and significant to the fair value measurement.

The asset 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.

Following is a description of the valuation methodology used for assets measured at fair value:

*Mutual funds* - Valued at the daily closing price as reported by the funds. Mutual funds held by the Plan are open-ended mutual funds that are registered with the Securities and Exchange Commission. These funds are required to publish their daily net asset value (NAV) and to transact at that price and, accordingly, these investments are valued using observable inputs. The mutual funds held by the Plan are deemed to be actively traded.

There has been no change in the methodology used at December 31, 2023 and 2022.

The preceding method described may produce a fair value calculation that may not be indicative of net realizable value or reflective of future values. Furthermore, although the Plan believes its valuation method is 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.

The following tables present by level, within the fair value hierarchy, the Plan's assets at fair value as of December 31:

| <u>Description</u>          | <u>2023</u>          |                |                |                      |
|-----------------------------|----------------------|----------------|----------------|----------------------|
|                             | <u>Level 1</u>       | <u>Level 2</u> | <u>Level 3</u> | <u>Total</u>         |
| Mutual funds, at fair value | <u>\$ 16,443,682</u> | <u>\$ -</u>    | <u>\$ -</u>    | <u>\$ 16,443,682</u> |

  

| <u>Description</u>          | <u>2022</u>          |                |                |                      |
|-----------------------------|----------------------|----------------|----------------|----------------------|
|                             | <u>Level 1</u>       | <u>Level 2</u> | <u>Level 3</u> | <u>Total</u>         |
| Mutual funds, at fair value | <u>\$ 11,024,135</u> | <u>\$ -</u>    | <u>\$ -</u>    | <u>\$ 11,024,135</u> |

## **RHYTHM PHARMACEUTICALS INC. 401K PLAN**

Notes to Financial Statements  
December 31, 2023 and 2022

---

### **5. PLAN TERMINATION**

Although it has not expressed any intent to do so, the Company has the right under the Plan to terminate the Plan subject to the provisions of ERISA. In the event of plan termination, participants will become fully vested in their non-elective contributions, and all accrued benefits shall be paid to participants in accordance with the provisions of the Plan.

### **6. RELATED PARTY AND PARTY-IN-INTEREST TRANSACTIONS**

Section 3(14) of ERISA defines a party-in-interest to include, among others, fiduciaries or employees of the Plan, any person who provides services to the Plan or an employer whose employees are covered by the Plan. Accordingly, notes receivable from participants and transactions with investment funds managed and held by the qualified institution are considered party-in-interest transactions. During 2023, the Plan paid the qualified institution and investment advisor administrative expenses totaling \$23,224.

### **7. TAX STATUS**

The Plan Sponsor has obtained an opinion dated June 30, 2020, in which the IRS stated that the restated prototype plan document was in compliance with applicable requirements of the IRC. The Plan Administrator timely adopted the restated prototype plan. Although the Plan has been amended since receiving the opinion letter, the Plan Administrator believes that the Plan is currently being operated in accordance with the IRC.

U.S. GAAP requires Plan management to evaluate tax positions taken by the Plan and recognize a tax liability (or asset) if the Plan has taken an uncertain tax position that more-likely-than-not would not be sustained upon examination by the applicable authorities. The Plan is subject to routine audits by taxing jurisdictions; however, there are currently no audits for any tax periods in progress.

### **8. RISKS AND UNCERTAINTIES**

The Plan invests in various investments. These investments are exposed to various risks, such as interest rate, market and credit risks. Due to the level of risk associated with these investments, it is at least reasonably possible that changes in the values of investments will occur in the near term and that these changes could materially affect participant account balances and the amounts reported in the accompanying statements of net assets available for benefits.

### **9. SUBSEQUENT EVENT**

Subsequent to year end, the Plan was amended for the following provisions:

- To change the age requirement to 18 years of age.
- To require one month of service to be eligible for all contribution types.
- To allow active military distributions and normal retirement age distributions.

**RHYTHM PHARMACEUTICALS INC. 401K PLAN**  
**PLAN NO. 001, FEDERAL I.D. #46-2159271**

Form 5500, Schedule H, Part IV, Line 4i - Schedule of Assets Held at End of Year  
December 31, 2023

| (a)               | (b)                                                                           | (c)                                                                                                       | (d)  | (e)                  |
|-------------------|-------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------|------|----------------------|
| Party-In-Interest | Identity of Issue, Borrower, Lessor, or Similar Party                         | Description of Investments, Including Maturity Date, Rate of Interest, Collateral, Par, or Maturity Value | Cost | Current Value        |
| *                 | Fidelity Freedom Index 2035 Fund Investor Class                               | Mutual Fund                                                                                               | **   | \$ 2,385,691         |
| *                 | Fidelity Freedom Index 2045 Fund Investor Class                               | Mutual Fund                                                                                               | **   | 1,945,329            |
|                   | Vanguard 500 Index Fund Admiral Shares                                        | Mutual Fund                                                                                               | **   | 1,648,303            |
| *                 | Fidelity Freedom Index 2050 Fund Investor Class                               | Mutual Fund                                                                                               | **   | 1,605,937            |
| *                 | Fidelity Freedom Index 2040 Fund Investor Class                               | Mutual Fund                                                                                               | **   | 1,106,184            |
| *                 | Fidelity Freedom Index 2030 Fund Investor Class                               | Mutual Fund                                                                                               | **   | 1,017,802            |
| *                 | Fidelity Freedom Index 2055 Fund Investor Class                               | Mutual Fund                                                                                               | **   | 1,017,265            |
| *                 | Fidelity Freedom Index 2025 Fund Investor Class                               | Mutual Fund                                                                                               | **   | 832,740              |
|                   | Vanguard Balanced Index Fund Admiral Shares                                   | Mutual Fund                                                                                               | **   | 676,568              |
|                   | Vanguard Extended Market Index Fund Admiral Shares                            | Mutual Fund                                                                                               | **   | 453,240              |
|                   | Vanguard Total Stock Market Index Fund Admiral Shares                         | Mutual Fund                                                                                               | **   | 370,737              |
| *                 | Fidelity Freedom Index 2060 Fund Investor Class                               | Mutual Fund                                                                                               | **   | 323,993              |
|                   | Vanguard Developed Markets Index Fund Admiral Shares                          | Mutual Fund                                                                                               | **   | 311,805              |
|                   | Victory Sycamore Established Value Fund Class R6                              | Mutual Fund                                                                                               | **   | 310,732              |
|                   | Vanguard Mid-Cap Growth Index Fund Admiral Shares                             | Mutual Fund                                                                                               | **   | 270,541              |
|                   | DFA Emerging Markets Core Equity Portfolio Institutional Class                | Mutual Fund                                                                                               | **   | 224,435              |
|                   | MFS International Growth Fund Class R6                                        | Mutual Fund                                                                                               | **   | 210,645              |
|                   | Vanguard Federal Money Market Fund                                            | Mutual Fund                                                                                               | **   | 184,582              |
|                   | MFS Value Fund Class R6                                                       | Mutual Fund                                                                                               | **   | 181,089              |
|                   | Vanguard Intermediate-Term Bond Index Fund Admiral Shares                     | Mutual Fund                                                                                               | **   | 179,813              |
|                   | Vanguard Small-Cap Index Fund Admiral Shares                                  | Mutual Fund                                                                                               | **   | 158,120              |
|                   | Vanguard Short-Term Investment-Grade Fund Admiral Shares                      | Mutual Fund                                                                                               | **   | 150,110              |
|                   | DFA International Core Equity I                                               | Mutual Fund                                                                                               | **   | 141,207              |
|                   | Hartford Core Equity Fund Class R6                                            | Mutual Fund                                                                                               | **   | 135,578              |
| *                 | Fidelity Freedom Index 2020 Fund Investor Class                               | Mutual Fund                                                                                               | **   | 122,064              |
|                   | Vanguard Small-Cap Value Index Fund Admiral Shares                            | Mutual Fund                                                                                               | **   | 110,602              |
|                   | Vanguard Explorer Fund Admiral Shares                                         | Mutual Fund                                                                                               | **   | 89,228               |
|                   | DFA Global Real Estate Securities Portfolio                                   | Mutual Fund                                                                                               | **   | 70,017               |
|                   | PGIM Global Total Return R6                                                   | Mutual Fund                                                                                               | **   | 67,439               |
| *                 | Fidelity Freedom Index 2015 Fund Investor Class                               | Mutual Fund                                                                                               | **   | 64,466               |
|                   | DFA Intermediate Government Fixed Income Portfolio Institutional Class        | Mutual Fund                                                                                               | **   | 52,004               |
|                   | DFA Inflation-Protected Securities Portfolio                                  | Mutual Fund                                                                                               | **   | 21,659               |
| *                 | Fidelity Freedom Index 2065 Fund Investor Class                               | Mutual Fund                                                                                               | **   | 3,757                |
| *                 | Notes Receivable from Participants                                            | Interest rates ranging from 4.25% to 9.25%, maturing through June 2028                                    | -    | 124,266              |
|                   |                                                                               |                                                                                                           |      | <u>\$ 16,567,948</u> |
| *                 | Party-In-Interest                                                             |                                                                                                           |      |                      |
| **                | The cost of participant-directed investments is not required to be disclosed. |                                                                                                           |      |                      |