# UNITED STATES SECURITIES AND EXCHANGE COMMISSION

WASHINGTON, D.C. 20549

### **SCHEDULE 13G**

UNDER THE SECURITIES EXCHANGE ACT OF 1934 (Amendment No. )\*

## Relmada Therapeutics, Inc.

(Name of Issuer)

Common Stock, \$0.001 par value (Title of Class of Securities)

75955J402 (CUSIP Number)

March 26, 2021 (Date of Event Which Requires Filing of This Statement)

The remainder of this cover page shall be filled out for a reporting person's initial filing on this form with respect to the subject class of securities, and for any subsequent

Check the appropriate box to designate the rule pursuant to which this Schedule is filed:

Check if the Aggregate Amount in Row (9) Excludes Certain Shares (See Instructions) □

Percent of Class Represented by Amount in Row (9)

☐ Rule 13d-1(b)☑ Rule 13d-1(c)☐ Rule 13d-1(d)

10.

11.

| The info   | ormation                     | require   | ng information which would alter the disclosures provided in a prior cover page.  d in the remainder of this cover page shall not be deemed to be "filed" for the purpose of Section 1 liabilities of that section of the Act but shall be subject to all other provisions of the Act (however, |             |
|------------|------------------------------|-----------|---|-------------|
| CUSIP      | No. 7595                     | 55J402    |   | Page 2 of I |
| 1.         | Name o                       | of report | ting persons  |             |
|            | Venroc                       | k Healtl  | heare Capital Partners II, L.P.   |             |
| 2.         |                              | he App    | ropriate Box if a Member of a Group (See Instructions)  |             |
| 3.         | SEC US                       | SE ONI    | Y   |             |
| 4.         | Citizens                     | •         | Place of Organization   |             |
|            | Delawa                       | 5.        | Sole Voting Power   |             |
| Nue        | nber of                      |           | 0   |             |
| Sl<br>Bene | nares<br>eficially<br>ned by | 6.        | Shared Voting Power 2,270,072 <sup>2</sup>  |             |
| E          | Each                         | 7.        | Sole Dispositive Power  |             |
| Pe         | erson                        |           | 0   |             |
| V          | Vith:                        | 8.        | Shared Dispositive Power  |             |
|            |                              |           | $2,270,072^2$   |             |
| 9.         | Aggreg                       | ate Am    | ount Beneficially Owned by Each Reporting Person  |             |

| 12. | Type of Reporting Person (See Instructions) |
|-----|---|
|     | PN  |

- 1 Venrock Healthcare Capital Partners II, L.P., VHCP Co-Investment Holdings II, LLC, Venrock Healthcare Capital Partners III, L.P., VHCP Co-Investment Holdings III, LLC, Venrock Healthcare Capital Partners EG, L.P., VHCP Management II, LLC, VHCP Management III, LLC, VHCP Management EG, LLC, Nimish Shah and Bong Koh are members of a group for the purposes of this Schedule 13G.
- 2 Consists of (i) 356,351 shares held by Venrock Healthcare Capital Partners II, L.P., (ii) 144,452 shares held by VHCP Co-Investment Holdings II, LLC, (iii) 961,927 shares held by Venrock Healthcare Capital Partners III, L.P., (iv) 96,203 shares held by VHCP Co-Investment Holdings III, LLC and (v) 711,139 shares held by Venrock Healthcare Capital Partners EG, L.P.
- 3 This percentage is calculated based upon 27,726,084 shares outstanding after completion of the Issuer's public offering, as reported in the prospectus supplement dated December 8, 2021 and filed with the Securities and Exchange Commission on December 10, 2021.

**CUSIP No. 75955J402** Page 3 of 17

| 1.           | Name of reporting persons |                                     |   |  |  |  |  |  |
|--------------|---------------------------|-------------------------------------|---|--|--|--|--|--|
|              | VHCP (                    | VHCP Co-Investment Holdings II, LLC |   |  |  |  |  |  |
| 2.           | Check t                   | he Appro                            | opriate Box if a Member of a Group (See Instructions) |  |  |  |  |  |
|              | (a) ⊠ <sup>1</sup>        | (b) 🗆                               |   |  |  |  |  |  |
| 3.           | SEC US                    | SE ONL                              | Y   |  |  |  |  |  |
| 4.           | Citizens                  | hip or P                            | lace of Organization                                  |  |  |  |  |  |
|              | Delawa                    | re                                  |   |  |  |  |  |  |
|              |                           | 5.                                  | Sole Voting Power                                     |  |  |  |  |  |
| Numl         | per of                    |                                     | 0   |  |  |  |  |  |
| Sha          | ires                      | 6.                                  | Shared Voting Power                                   |  |  |  |  |  |
| Benef<br>Own | icially<br>ed by          |                                     | $2,270,072^2$   |  |  |  |  |  |
| Ea           | ch                        | 7.                                  | Sole Dispositive Power                                |  |  |  |  |  |
| Repo<br>Per  | son                       |                                     | 0   |  |  |  |  |  |
| Wi           | th:                       | 8.                                  | Shared Dispositive Power                              |  |  |  |  |  |
|              |                           |                                     | $2,270,072^2$   |  |  |  |  |  |
| 9.           | Aggrega                   | ate Amo                             | unt Beneficially Owned by Each Reporting Person       |  |  |  |  |  |
|              | 2,270,0°                  | $72^{2}$                            |   |  |  |  |  |  |
|              |                           |                                     |   |  |  |  |  |  |
| 11.          | Percent                   | of Class                            | Represented by Amount in Row (9)                      |  |  |  |  |  |
| $8.2\%^{3}$  |                           |                                     |   |  |  |  |  |  |
| 12.          | Type of                   | Reporti                             | ng Person (See Instructions)                          |  |  |  |  |  |
|              | 00                        |                                     |   |  |  |  |  |  |
|              |                           |                                     |   |  |  |  |  |  |

- 1 Venrock Healthcare Capital Partners II, L.P., VHCP Co-Investment Holdings II, LLC, Venrock Healthcare Capital Partners III, L.P., VHCP Co-Investment Holdings III, LLC, Venrock Healthcare Capital Partners EG, L.P., VHCP Management II, LLC, VHCP Management III, LLC, VHCP Management EG, LLC, Nimish Shah and Bong Koh are members of a group for the purposes of this Schedule 13G.
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- 3 This percentage is calculated based upon 27,726,084 shares outstanding after completion of the Issuer's public offering, as reported in the prospectus supplement dated December 8, 2021 and filed with the Securities and Exchange Commission on December 10, 2021.

**CUSIP No. 75955J402** Page 4 of 17

| 1. | Name of reporting persons   |
|----|---|
|    | Venrock Healthcare Capital Partners III, L.P.                                       |
|    | Check the Appropriate Box if a Member of a Group (See Instructions)  (a)   □  (a) □ |
| 3. | SEC USE ONLY  |

| 4.           | Citizenship or Place of Organization            |  |   |  |  |  |
|--------------|---|--|---|--|--|--|
| Delaware     |   |  |   |  |  |  |
|              |   | 5.   | Sole Voting Power   |  |  |  |
| Numl         | er of   |  | 0   |  |  |  |
| Sha          | ires  | 6.   | Shared Voting Power   |  |  |  |
| Benet<br>Own | icially<br>ed by                                |  | $2,270,072^2$   |  |  |  |
| Ea           | ch<br>rting                                     | 7.   | Sole Dispositive Power  |  |  |  |
| Per          | son   |  | 0   |  |  |  |
| With:        |   | 8.   | Shared Dispositive Power  |  |  |  |
|              |   |  | $2,270,072^2$   |  |  |  |
| 9.           | Aggrega   | ite Amou   | nt Beneficially Owned by Each Reporting Person                        |  |  |  |
|              | $2,270,072^2$                                   |  |   |  |  |  |
| 10.          | Check if  | the Agg  | regate Amount in Row (9) Excludes Certain Shares (See Instructions) □ |  |  |  |
| 11.          | Percent   | ercent of Class Represented by Amount in Row (9) |   |  |  |  |
| $8.2\%^{3}$  |   |  |   |  |  |  |
| 12.          | 12. Type of Reporting Person (See Instructions) |  |   |  |  |  |
|              | PN  |  |   |  |  |  |

- Venrock Healthcare Capital Partners II, L.P., VHCP Co-Investment Holdings II, LLC, Venrock Healthcare Capital Partners III, L.P., VHCP Co-Investment Holdings III, LLC, Venrock Healthcare Capital Partners EG, L.P., VHCP Management II, LLC, VHCP Management III, LLC, VHCP Management EG, LLC, Nimish Shah and Bong Koh are members of a group for the purposes of this Schedule 13G.
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CUSIP No. 75955J402 Page 5 of 17

| 1.  | Name o                               | Name of reporting persons                                   |  |  |  |  |  |  |
|---|--------------------------------------|---|--|--|--|--|--|--|
|   | VHCP Co-Investment Holdings III, LLC |   |  |  |  |  |  |  |
| 2.  |                                      |   | ropriate Box if a Member of a Group (See Instructions) |  |  |  |  |  |
|   | (a) $\boxtimes^1$ (b) $\square$      |   |  |  |  |  |  |  |
| 3.  | SEC US                               | SE ONL  | Y  |  |  |  |  |  |
| 4.  | Citizens                             | ship or F   | Place of Organization                                  |  |  |  |  |  |
|   | Delawa                               | re  |  |  |  |  |  |  |
|   |                                      | 5.  | Sole Voting Power                                      |  |  |  |  |  |
| Num   | ber of                               |   | 0  |  |  |  |  |  |
|   | ares                                 | 6.  | Shared Voting Power                                    |  |  |  |  |  |
|   | ficially                             |   | $2,270,072^2$  |  |  |  |  |  |
|   | ed by<br>ach                         | 7.  | Sole Dispositive Power                                 |  |  |  |  |  |
| Repo  | orting                               | / .   | Sole Dispositive I ower                                |  |  |  |  |  |
|   | rson<br>ith:                         |   | 0  |  |  |  |  |  |
| VV  | IIII;                                | 8.  | Shared Dispositive Power                               |  |  |  |  |  |
|   |                                      |   | $2,270,072^2$  |  |  |  |  |  |
| 9.  | Aggreg                               | ggregate Amount Beneficially Owned by Each Reporting Person |  |  |  |  |  |  |
|   | 2,270,0                              | 722   |  |  |  |  |  |  |
| 10. Check if the Aggregate Amount in Row (9) Excludes Certain Shares (See Instructions) □ |                                      |   |  |  |  |  |  |  |
|   |                                      |   |  |  |  |  |  |  |
| 11.   | Percent                              | of Class  | s Represented by Amount in Row (9)                     |  |  |  |  |  |
|   | 8.2% <sup>3</sup>                    | $8.2\%^{3}$   |  |  |  |  |  |  |
| 12.   | Type of                              | Reporti   | ing Person (See Instructions)                          |  |  |  |  |  |
|   | 00                                   |   |  |  |  |  |  |  |
|   |                                      |   |  |  |  |  |  |  |

- 1 Venrock Healthcare Capital Partners II, L.P., VHCP Co-Investment Holdings II, LLC, Venrock Healthcare Capital Partners III, L.P., VHCP Co-Investment Holdings III, LLC, Venrock Healthcare Capital Partners EG, L.P., VHCP Management II, LLC, VHCP Management III, LLC, VHCP Management EG, LLC, Nimish Shah and Bong Koh are members of a group for the purposes of this Schedule 13G.
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CUSIP No. 75955J402 Page 6 of 17

| 1.          | Name of  | f reporti                    | ng persons  |  |  |  |  |
|-------------|--|------------------------------|---|--|--|--|--|
|             | Venrock  | Health                       | care Capital Partners EG, L.P.                        |  |  |  |  |
| 2.          |  |                              | opriate Box if a Member of a Group (See Instructions) |  |  |  |  |
|             | (a) ⊠¹   | $a) \boxtimes^1 (b) \square$ |   |  |  |  |  |
| 3.          | SEC US   | E ONL                        | Y   |  |  |  |  |
| 4.          | Citizens   | hip or P                     | lace of Organization                                  |  |  |  |  |
|             | Delawaı  | ·e                           |   |  |  |  |  |
|             |  | 5.                           | Sole Voting Power                                     |  |  |  |  |
| Num         | ber of   |                              | 0   |  |  |  |  |
| Sha         | ares   | 6.                           | Shared Voting Power                                   |  |  |  |  |
|             | icially<br>ed by   |                              | $2,270,072^2$   |  |  |  |  |
|             | ich  | 7.                           | Sole Dispositive Power                                |  |  |  |  |
| Per         | orting<br>rson   |                              | 0   |  |  |  |  |
| W           | ith:   | 8.                           | Shared Dispositive Power                              |  |  |  |  |
|             |  |                              | $2,270,072^2$   |  |  |  |  |
| 9.          | Aggrega  | ite Amo                      | unt Beneficially Owned by Each Reporting Person       |  |  |  |  |
|             | 2,270,07   | $72^{2}$                     |   |  |  |  |  |
| 10.         | ). Check if the Aggregate Amount in Row (9) Excludes Certain Shares (See Instructions) □ |                              |   |  |  |  |  |
| 11.         | Percent  | of Class                     | Represented by Amount in Row (9)                      |  |  |  |  |
| $8.2\%^{3}$ |  |                              |   |  |  |  |  |
| 12.         | Type of  | Reporti                      | ng Person (See Instructions)                          |  |  |  |  |
|             | PN   |                              |   |  |  |  |  |
|             |  |                              |   |  |  |  |  |

- 1 Venrock Healthcare Capital Partners II, L.P., VHCP Co-Investment Holdings II, LLC, Venrock Healthcare Capital Partners III, L.P., VHCP Co-Investment Holdings III, LLC, Venrock Healthcare Capital Partners EG, L.P., VHCP Management II, LLC, VHCP Management III, LLC, VHCP Management EG, LLC, Nimish Shah and Bong Koh are members of a group for the purposes of this Schedule 13G.
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CUSIP No. 75955J402 Page 7 of 17

| 1. | Name of reporting persons   |
|----|---|
|    | VHCP Management II, LLC   |
|    | Check the Appropriate Box if a Member of a Group (See Instructions) |
|    | $(a) \boxtimes^1 (b) \square$                                       |
|    |   |
| 3. | SEC USE ONLY  |
|    |   |
| 4. | Citizenship or Place of Organization                                |
|    |   |
|    | Delaware  |

|  |                  | 5.                                 | Sole Voting Power  |  |  |  |  |  |
|--|------------------|------------------------------------|--|--|--|--|--|--|
| Nun  | nber of          |                                    | 0  |  |  |  |  |  |
| Sh   | nares            | 6.                                 | Shared Voting Power  |  |  |  |  |  |
| Owi  | eficially ned by |                                    | $2,270,072^2$  |  |  |  |  |  |
|  | Each<br>porting  | 7.                                 | Sole Dispositive Power   |  |  |  |  |  |
|  | erson<br>Vith:   |                                    | 0  |  |  |  |  |  |
| \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \                                    | vitn:            | 8.                                 | Shared Dispositive Power   |  |  |  |  |  |
|  |                  |                                    | $2,270,072^2$  |  |  |  |  |  |
| 9.   | Aggrega          | ite Amo                            | ount Beneficially Owned by Each Reporting Person                       |  |  |  |  |  |
|  | 2,270,07         | $2,270,072^2$                      |  |  |  |  |  |  |
| 10.  | Check if         | f the Ag                           | rgregate Amount in Row (9) Excludes Certain Shares (See Instructions)□ |  |  |  |  |  |
| 11. Percent of Class Represented by Amount in Row (9)  8.2% <sup>3</sup> |                  | s Represented by Amount in Row (9) |  |  |  |  |  |  |
|  |                  |                                    |  |  |  |  |  |  |
| 12.  | Type of          | Reporti                            | ing Person (See Instructions)  |  |  |  |  |  |
| 00   |                  |                                    |  |  |  |  |  |  |

- 1 Venrock Healthcare Capital Partners II, L.P., VHCP Co-Investment Holdings II, LLC, Venrock Healthcare Capital Partners III, L.P., VHCP Co-Investment Holdings III, LLC, Venrock Healthcare Capital Partners EG, L.P., VHCP Management II, LLC, VHCP Management III, LLC, VHCP Management EG, LLC, Nimish Shah and Bong Koh are members of a group for the purposes of this Schedule 13G.
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**CUSIP No. 75955J402** Page 8 of 17

| 1.  | Name of reporting persons   |            |  |  |  |  |
|---|-----------------------------|------------|--|--|--|--|
|   | VHCP Management III, LLC    |            |  |  |  |  |
|   | Check th (a) ⊠ <sup>1</sup> |            | priate Box if a Member of a Group (See Instructions)                 |  |  |  |
|   |                             | E ONLY     |  |  |  |  |
| 4.  | Citizens                    | hip or Pla | ace of Organization  |  |  |  |
|   | Delawar                     | e          |  |  |  |  |
|   |                             | 5.         | Sole Voting Power  |  |  |  |
| Numl  | er of                       |            | 0  |  |  |  |
| Sha   | ires                        | 6.         | Shared Voting Power  |  |  |  |
| Benefi<br>Owne                                  |                             |            | $2,270,072^2$  |  |  |  |
| Ea<br>Repo                                      |                             | 7.         | Sole Dispositive Power   |  |  |  |
| Per   | son                         |            | 0  |  |  |  |
| Wi  | th:                         | 8.         | Shared Dispositive Power   |  |  |  |
|   |                             |            | $2,270,072^2$  |  |  |  |
| 9.  | Aggrega                     | ite Amou   | nt Beneficially Owned by Each Reporting Person                       |  |  |  |
|   | 2,270,07                    | $72^{2}$   |  |  |  |  |
| 10.   | Check if                    | f the Agg  | regate Amount in Row (9) Excludes Certain Shares (See Instructions)□ |  |  |  |
| 11.   | Percent                     | of Class 1 | Represented by Amount in Row (9)                                     |  |  |  |
|   | $8.2\%^{3}$                 |            |  |  |  |  |
| 12. Type of Reporting Person (See Instructions) |                             |            |  |  |  |  |
|   | 00                          |            |  |  |  |  |
| 10.<br>11.                                      |                             |            |  |  |  |  |

<sup>1</sup> Venrock Healthcare Capital Partners II, L.P., VHCP Co-Investment Holdings II, LLC, Venrock Healthcare Capital Partners III, L.P., VHCP Co-Investment Holdings III, LLC, Venrock Healthcare Capital Partners EG, L.P., VHCP Management II, LLC, VHCP Management III, LLC, VHCP Management EG, LLC, Nimish Shah and Bong Koh are members of a group for the purposes of this Schedule 13G.

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|---|---|
| 2 | held by Venrock Healthcare Capital Partners III, L.P., (iv) 96,203 shares held by VHCP Co-Investment Holdings III, LLC and (v) 711,139 shares held by Venrock Healthcare  |

| 3 | This percentage is calculated based upon 27,726,084 shares outstanding after completion of | f the Issuer's | s public offering, | as reported in the | prospectus supp | olement dated |
|---|--|----------------|--------------------|--------------------|-----------------|---------------|
|   | December 8, 2021 and filed with the Securities and Exchange Commission on December 1       | 0, 2021.       |                    |                    |                 |               |

| CUSIP No. 75955J402 | Page 9 of 1 |
|---------------------|-------------|
|                     |             |

| 1.  | Name of reporting persons   |            |  |  |
|---|---|------------|--|--|
|   | VHCP Management EG, LLC   |            |  |  |
| 2.  | Check th (a) ⊠¹ (   |            | priate Box if a Member of a Group (See Instructions) |  |
|   |   |            |  |  |
| 3.  | SEC US  | E ONLY     |  |  |
| 4.  | Citizens  | hip or Pla | ace of Organization                                  |  |
|   | Delawar   | ·e         |  |  |
|   |   | 5.         | Sole Voting Power                                    |  |
| Numl  | ber of  |            | 0  |  |
| Sha   | ares  | 6.         | Shared Voting Power                                  |  |
| Beneficially<br>Owned by<br>Each<br>Reporting<br>Person |   |            | $2,270,072^2$  |  |
|   |   | 7.         | Sole Dispositive Power                               |  |
|   |   |            | 0  |  |
| With: 8. Shared Dispositive Power                       |   |            | Shared Dispositive Power                             |  |
|   | $2,270,072^2$   |            |  |  |
| 9.  | Aggregate Amount Beneficially Owned by Each Reporting Person                          |            |  |  |
|   | $2,270,072^2$   |            |  |  |
| 10.   | Check if the Aggregate Amount in Row (9) Excludes Certain Shares (See Instructions) □ |            |  |  |
| 11.   | Percent of Class Represented by Amount in Row (9)                                     |            |  |  |
|   | $8.2\%^{3}$   |            |  |  |
| 12.   | Type of   | Reportin   | g Person (See Instructions)                          |  |
|   | 00  |            |  |  |

- 1 Venrock Healthcare Capital Partners II, L.P., VHCP Co-Investment Holdings II, LLC, Venrock Healthcare Capital Partners III, L.P., VHCP Co-Investment Holdings III, LLC, Venrock Healthcare Capital Partners EG, L.P., VHCP Management II, LLC, VHCP Management III, LLC, VHCP Management EG, LLC, Nimish Shah and Bong Koh are members of a group for the purposes of this Schedule 13G.
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**CUSIP No. 75955J402** Page 10 of 17

| 1.  | Name of                              | Reportii | ng Persons   |  |
|-----|--------------------------------------|----------|--|--|
|     | Shah, Ni                             | mish     |  |  |
|     |                                      |          | priate Box if a Member of a Group (See Instructions) |  |
|     | (a) ⊠¹ (                             | b) □     |  |  |
|     |                                      |          |  |  |
| 3.  | SEC US                               | E ONLY   |  |  |
|     |                                      |          |  |  |
| 4.  | Citizenship or Place of Organization |          |  |  |
|     | TT 1: 10                             |          |  |  |
|     | United States                        |          |  |  |
|     |                                      | 5.       | Sole Voting Power                                    |  |
|     |                                      |          | 0  |  |
| Num | Number of                            |          |  |  |

| Shares Beneficially Owned by Each Reporting |   | 6.       | Shared Voting Power   |
|---|---|----------|---|
|   |   |          | $2,270,072^2$   |
|   |   | 7.       | Sole Dispositive Power  |
| Pe  | Person  |          | 0   |
| W   | /ith:   | 8.       | Shared Dispositive Power  |
|   |   |          | $2,270,072^2$   |
| 9.  | Aggrega   | ate Amo  | ount Beneficially Owned by Each Reporting Person                      |
|   | 2,270,07  | $72^{2}$ |   |
| 10.   |   |          | gregate Amount in Row (9) Excludes Certain Shares (See Instructions)□ |
| 11.   | 11. Percent of Class Represented by Amount in Row (9) |          |   |
|   | $8.2\%^{3}$   |          |   |
| 12.   | Type of   | Reporti  | ng Person (See Instructions)  |
|   | IN  |          |   |

- 1 Venrock Healthcare Capital Partners II, L.P., VHCP Co-Investment Holdings II, LLC, Venrock Healthcare Capital Partners III, L.P., VHCP Co-Investment Holdings III, LLC, Venrock Healthcare Capital Partners EG, L.P., VHCP Management II, LLC, VHCP Management III, LLC, VHCP Management EG, LLC, Nimish Shah and Bong Koh are members of a group for the purposes of this Schedule 13G.
- 2 Consists of (i) 356,351 shares held by Venrock Healthcare Capital Partners II, L.P., (ii) 144,452 shares held by VHCP Co-Investment Holdings II, LLC, (iii) 961,927 shares held by Venrock Healthcare Capital Partners III, L.P., (iv) 96,203 shares held by VHCP Co-Investment Holdings III, LLC and (v) 711,139 shares held by Venrock Healthcare Capital Partners EG, L.P.
- 3 This percentage is calculated based upon 27,726,084 shares outstanding after completion of the Issuer's public offering, as reported in the prospectus supplement dated December 8, 2021 and filed with the Securities and Exchange Commission on December 10, 2021.

CUSIP No. 75955J402 Page 11 of 17

| 1.                          | Name of Reporting Persons  |           |  |  |
|-----------------------------|--|-----------|--|--|
|                             |  |           |  |  |
|                             | Koh, Bong  |           |  |  |
|                             |  |           | ropriate Box if a Member of a Group (See Instructions) |  |
|                             | (a) ⊠¹   | (b) 🗀     |  |  |
| 3.                          | SEC US   | E ONL     | Y  |  |
|                             |  |           |  |  |
| 4.                          | Citizens   | ship or I | Place of Organization                                  |  |
|                             | United S   | States    |  |  |
|                             |  | 5.        | Sole Voting Power                                      |  |
| NT .                        | c  |           |  |  |
| Num<br>Sha                  | oer of   | 6.        | Shared Voting Power                                    |  |
|                             | icially  |           |  |  |
|                             | ed by  |           | $2,270,072^2$  |  |
| Each<br>Reporting<br>Person |  | 7.        | Sole Dispositive Power                                 |  |
|                             |  |           |  |  |
| W                           |  |           |  |  |
| ,,,                         |  | 8.        | Shared Dispositive Power                               |  |
|                             |  |           | $2,270,072^2$  |  |
| 9.                          | Aggrega  | ate Amo   | ount Beneficially Owned by Each Reporting Person       |  |
|                             | $2,270,072^2$  |           |  |  |
|                             |  |           |  |  |
|                             | The state of the s |           |  |  |
| 11.                         | Percent of Class Represented by Amount in Row (9)  |           |  |  |
|                             | $8.2\%^{3}$  |           |  |  |
| 12.                         | Type of  | Report    | ing Person (See Instructions)                          |  |
|                             | IN   |           |  |  |
|                             |  |           |  |  |

- 1 Venrock Healthcare Capital Partners II, L.P., VHCP Co-Investment Holdings II, LLC, Venrock Healthcare Capital Partners III, L.P., VHCP Co-Investment Holdings III, LLC, Venrock Healthcare Capital Partners EG, L.P., VHCP Management II, LLC, VHCP Management III, LLC, VHCP Management EG, LLC, Nimish Shah and Bong Koh are members of a group for the purposes of this Schedule 13G.
- 2 Consists of (i) 356,351 shares held by Venrock Healthcare Capital Partners II, L.P., (ii) 144,452 shares held by VHCP Co-Investment Holdings II, LLC, (iii) 961,927 shares held by Venrock Healthcare Capital Partners III, L.P., (iv) 96,203 shares held by VHCP Co-Investment Holdings III, LLC and (v) 711,139 shares held by Venrock Healthcare Capital Partners EG, L.P.

3 This percentage is calculated based upon 27,726,084 shares outstanding after completion of the Issuer's public offering, as reported in the prospectus supplement dated December 8, 2021 and filed with the Securities and Exchange Commission on December 10, 2021.

**CUSIP No. 75955J402** Page 12 of 17

Introductory Note: This Schedule 13G is filed on behalf of Venrock Healthcare Capital Partners II, L.P., a limited partnership organized under the laws of the State of Delaware ("VHCP II LP"), VHCP Co-Investment Holdings II, LLC, a limited liability company organized under the laws of the State of Delaware ("VHCP Co-Investment II"), Venrock Healthcare Capital Partners III, L.P., a limited partnership organized under the laws of the State of Delaware ("VHCP III LP"), VHCP Co-Investment Holdings III, LLC, a limited liability company organized under the laws of the State of Delaware ("VHCP EG"), VHCP Management III"), Venrock Healthcare Capital Partners EG, L.P., a limited partnership organized under the laws of the State of Delaware ("VHCP EG"), VHCP Management II, LLC, a limited liability company organized under the laws of the State of Delaware ("VHCP Management III"), VHCP Management III"), VHCP Management III"), VHCP Management III, LLC, a limited liability company organized under the laws of the State of Delaware ("VHCP Management III"), VHCP Management III, LLC, a limited liability company organized under the laws of the State of Delaware ("VHCP Management III"), VHCP Management III, VHCP III LP, VHCP Co-Investment III, VHCP III LP, VHCP Co-Investment III, VHCP III LP, VHCP Co-Investment III, VHCP EG, VHCP Management III and VHCP Management III, the "Venrock Entities"), Nimish Shah ("Shah") and Bong Koh ("Koh") in respect of Common Stock of Relmada Therapeutics, Inc.

#### Item 1.

(a) Name of Issuer

Relmada Therapeutics, Inc.

(b) Address of Issuer's Principal Executive Offices

2222 Ponce de Leon, Floor 3 Coral Gables, Florida 33134

#### Item 2.

(a) Name of Person Filing

Venrock Healthcare Capital Partners II, L.P. VHCP Co-Investment Holdings II, LLC Venrock Healthcare Capital Partners III, L.P. VHCP Co-Investment Holdings III, LLC Venrock Healthcare Capital Partners EG, L.P. VHCP Management II, LLC VHCP Management III, LLC VHCP Management EG, LLC Nimish Shah Bong Koh

(b) Address of Principal Business Office or, if none, Residence

New York Office: Palo Alto Office:

7 Bryant Park 23rd Floor New York, NY 10018

(c) Citizenship

All of the Venrock Entities were organized in Delaware. The individuals are both United States citizens.

(d) Title of Class of Securities

Common Stock, par value \$0.001 per share

CUSIP No. 75955J402 Page 13 of 17

3340 Hillview Avenue Palo Alto, CA 94304

(e) CUSIP Number

75955J402

Item 3. If this statement is filed pursuant to §§240.13d-1(b), or 240.13d-2(b) or (c), check whether the person filing is a:

Not applicable

#### Item 4. Ownership

(a) Amount Beneficially Owned as of December 31, 2021:

| Venrock Healthcare Capital Partners II, L.P.  | 2,270,072(1) |
|---|--------------|
| VHCP Co-Investment Holdings II, LLC           | 2,270,072(1) |
| Venrock Healthcare Capital Partners III, L.P. | 2,270,072(1) |
| VHCP Co-Investment Holdings III, LLC          | 2,270,072(1) |
| Venrock Healthcare Capital Partners EG, L.P.  | 2,270,072(1) |
| VHCP Management II, LLC                       | 2,270,072(1) |

| VHCP Management III, LLC | 2,270,072(1) |
|--------------------------|--------------|
| VHCP Management EG, LLC  | 2,270,072(1) |
| Nimish Shah              | 2,270,072(1) |
| Bong Koh                 | 2,270,072(1) |

(b) Percent of Class as of December 31, 2021:

| Venrock Healthcare Capital Partners II, L.P.  | 8.2% |
|---|------|
| VHCP Co-Investment Holdings II, LLC           | 8.2% |
| Venrock Healthcare Capital Partners III, L.P. | 8.2% |
| VHCP Co-Investment Holdings III, LLC          | 8.2% |
| Venrock Healthcare Capital Partners EG, L.P.  | 8.2% |
| VHCP Management II, LLC                       | 8.2% |
| VHCP Management III, LLC                      | 8.2% |
| VHCP Management EG, LLC                       | 8.2% |
| Nimish Shah                                   | 8.2% |
| Bong Koh                                      | 8.2% |

- (c) Number of shares as to which the person has, as of December 31, 2021:
- (i) Sole power to vote or to direct the vote

| Venrock Healthcare Capital Partners II, L.P.  | 0 |
|---|---|
| VHCP Co-Investment Holdings II, LLC           | 0 |
| Venrock Healthcare Capital Partners III, L.P. | 0 |
| VHCP Co-Investment Holdings III, LLC          | 0 |
| Venrock Healthcare Capital Partners EG, L.P.  | 0 |
| VHCP Management II, LLC                       | 0 |
| VHCP Management III, LLC                      | 0 |
| VHCP Management EG, LLC                       | 0 |
| Nimish Shah                                   | 0 |
| Bong Koh                                      | 0 |
|   |   |

CUSIP No. 75955J402 Page 14 of 17

(ii) Shared power to vote or to direct the vote

| Venrock Healthcare Capital Partners II, L.P.  | 2,270,072(1) |
|---|--------------|
| VHCP Co-Investment Holdings II, LLC           | 2,270,072(1) |
| Venrock Healthcare Capital Partners III, L.P. | 2,270,072(1) |
| VHCP Co-Investment Holdings III, LLC          | 2,270,072(1) |
| Venrock Healthcare Capital Partners EG, L.P.  | 2,270,072(1) |
| VHCP Management II, LLC                       | 2,270,072(1) |
| VHCP Management III, LLC                      | 2,270,072(1) |
| VHCP Management EG, LLC                       | 2,270,072(1) |
| Nimish Shah                                   | 2,270,072(1) |
| Bong Koh                                      | 2,270,072(1) |

(iii) Sole power to dispose or to direct the disposition of

| Venrock Healthcare Capital Partners II, L.P.  | U |
|---|---|
| VHCP Co-Investment Holdings II, LLC           | 0 |
| Venrock Healthcare Capital Partners III, L.P. | 0 |
| VHCP Co-Investment Holdings III, LLC          | 0 |
| Venrock Healthcare Capital Partners EG, L.P.  | 0 |
| VHCP Management II, LLC                       | 0 |
| VHCP Management III, LLC                      | 0 |
|   | 0 |
| VHCP Management EG, LLC                       |   |
| Nimish Shah                                   | 0 |
| Bong Koh                                      | 0 |
|   |   |

(iv)Shared power to dispose or to direct the disposition of

| Venrock Healthcare Capital Partners II, L.P.  | 2,270,072(1) |
|---|--------------|
| VHCP Co-Investment Holdings II, LLC           | 2,270,072(1) |
| Venrock Healthcare Capital Partners III, L.P. | 2,270,072(1) |
| VHCP Co-Investment Holdings III, LLC          | 2,270,072(1) |
| Venrock Healthcare Capital Partners EG, L.P.  | 2,270,072(1) |
| VHCP Management II, LLC                       | 2,270,072(1) |
| VHCP Management III, LLC                      | 2,270,072(1) |
| VHCP Management EG, LLC                       | 2,270,072(1) |
| Nimish Shah                                   | 2,270,072(1) |
| Bong Koh                                      | 2,270,072(1) |
|   |              |

<sup>(1)</sup> Consists of (i) 356,351 shares held by Venrock Healthcare Capital Partners II, L.P., (ii) 144,452 shares held by VHCP Co-Investment Holdings II, LLC, (iii) 961,927 shares held by Venrock Healthcare Capital Partners III, L.P., (iv) 96,203 shares held by VHCP Co-Investment Holdings III, LLC and (v) 711,139 shares held by Venrock Healthcare Capital Partners EG, L.P. VHCP Management II, LLC is the general partner of Venrock Healthcare Capital Partners II, L.P. and the manager of VHCP Co-Investment Holdings III, LLC. VHCP Management III, LLC is the general partner of Venrock Healthcare Capital Partners III, L.P. and the manager of VHCP Co-Investment Holdings III, LLC. VHCP Management EG, LLC is the general partner of Venrock Healthcare Capital Partners EG, L.P. Messrs. Shah and Koh are the voting members of VHCP Management III, LLC, VHCP Management III, LLC and VHCP Management EG, LLC.

CUSIP No. 75955J402 Page 15 of 17

#### Item 5. Ownership of Five Percent or Less of a Class

If this statement is being filed to report the fact that as of the date hereof the reporting person has ceased to be the beneficial owner of more than five percent of the class of securities, check the following  $\Box$ .

#### Item 6. Ownership of More than Five Percent on Behalf of Another Person

Not Applicable

#### Item 7. Identification and Classification of the Subsidiary Which Acquired the Security Being Reported on By the Parent Holding Company or Control Person.

Not Applicable

#### Item 8. Identification and Classification of Members of the Group

Not Applicable

#### Item 9. Notice of Dissolution of a Group

Not Applicable

#### Item 10. Certification

By signing below I certify that, to the best of my knowledge and belief, the securities referred to above were not acquired and are not held for the purpose of or with the effect of changing or influencing the control of the issuer of the securities and were not acquired and are not held in connection with or as a participant in any transaction having that purpose or effect, other than activities solely in connection with a nomination under § 240.14a-11.

CUSIP No. 75955J402 Page 16 of 17

#### **SIGNATURE**

After reasonable inquiry and to the best of my knowledge and belief, I certify that the information set forth in this statement is true, complete and correct.

Dated: February 14, 2022

#### Venrock Healthcare Capital Partners II, L.P.

By: VHCP Management II, LLC

Its: General Partner

By: /s/ David L. Stepp

Name: David L. Stepp Its: Authorized Signatory

#### VHCP Co-Investment Holdings II, LLC

By: VHCP Management II, LLC

Its: Manager

By: /s/ David L. Stepp

Name: David L. Stepp Its: Authorized Signatory

#### VHCP Management II, LLC

By: /s/ David L. Stepp Name: David L. Stepp

# Its: Authorized Signatory Venrock Healthcare Capital Partners EG, L.P.

By: VHCP Management EG, LLC

Its: General Partner

/s/ David L. Stepp

Name: David L. Stepp Its: Authorized Signatory

#### Bong Koh

/s/ David L. Stepp

David L. Stepp, Attorney-in-fact

#### Venrock Healthcare Capital Partners III, L.P.

By: VHCP Management III, LLC

Its: General Partner

By: /s/ David L. Stepp

Name: David L. Stepp Its: Authorized Signatory

#### VHCP Co-Investment Holdings III, LLC

By: VHCP Management III, LLC

Its: Manager

By: /s/ David L. Stepp

Name: David L. Stepp Its: Authorized Signatory

#### VHCP Management III, LLC

By: /s/ David L. Stepp

Name: David L. Stepp Its: Authorized Signatory

#### VHCP Management EG, LLC

/s/ David L. Stepp

Name: David L. Stepp Its: Authorized Signatory

Nimish Shah

| /s/ David L. Stepp               |  |
|----------------------------------|--|
| David L. Stepp, Attorney-in-fact |  |

CUSIP No. 75955J402 Page 17 of 17

### **EXHIBITS**

- A: Joint Filing Agreement (incorporated by reference to Exhibit A to Schedule 13G filed on December 16, 2019)
- B: Power of Attorney for Nimish Shah (incorporated by reference to Exhibit B to Schedule 13G filed on December 16, 2019)
- C: Power of Attorney for Bong Koh (incorporated by reference to Exhibit C to Schedule 13G filed on December 16, 2019)