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

# SCHEDULE 13D

**Under the Securities Exchange Act of 1934**
**(Amendment No. ___)***

# Acer Therapeutics Inc.

(Name of Issuer)

**Common Stock, $.01 par value**

(Title of Class of Securities)

**00444P108**

(CUSIP Number)

**Stefan Fischer**
**TVM Capital**
**Ottostrasse 4, 80333 Munich, Germany**
**(49) 89998992-48**

(Name, Address and Telephone Number of Person
Authorized to Receive Notices and Communications)

**December 12, 2017**

(Date of Event which Requires Filing of this Statement)

If the filing person has previously filed a statement on Schedule 13G to report the acquisition that is the subject of this Schedule 13D, and is filing this schedule because of §§240.13d-1(e), 240.13d-1(f) or 240.13d-1(g), check the following box ☐.

**Note** : Schedules filed in paper format shall include a signed original and five copies of the schedule, including all exhibits. See §240.13d-7 for other parties to whom copies are to be sent.

* 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 amendment containing information which would alter disclosures provided in a prior cover page.

The information required on the remainder of this cover page shall not be deemed to be "filed" for the purpose of Section 18 of the Securities Exchange Act of 1934 ("Act") or otherwise subject to the liabilities of that section of the Act but shall be subject to all other provisions of the Act (however, see the Notes).

| | | |
|---|---|---|
| 1 | NAMES OF REPORTING PERSONS<br>I.R.S. IDENTIFICATION NOS. OF ABOVE PERSONS (ENTITIES ONLY)<br>TVM Life Science Ventures VI L.P. | |
| 2 | CHECK THE APPROPRIATE BOX IF A MEMBER OF A GROUP | (a) ☐<br>(b) ☐ |
| 3 | SEC USE ONLY | |
| 4 | SOURCE OF FUNDS (SEE INSTRUCTIONS)<br>WC | |
| 5 | CHECK BOX IF DISCLOSURE OF LEGAL PROCEEDINGS IS REQUIRED PURSUANT TO ITEM 2(D) OR 2(E) | ☐ |
| 6 | CITIZENSHIP OR PLACE OF ORGANIZATION<br>Cayman Islands | |
| NUMBER OF SHARES BENEFICIALLY OWNED BY EACH REPORTING PERSON WITH | 7 | SOLE VOTING POWER<br>0 shares |
| | 8 | SHARED VOTING POWER<br>2,397,309 shares |
| | 9 | SOLE DISPOSITIVE POWER<br>0 shares |
| | 10 | SHARED DISPOSITIVE POWER<br>2,397,309 shares |
| 11 | AGGREGATE AMOUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON<br>2,397,309 shares | |
| 12 | CHECK BOX IF THE AGGREGATE AMOUNT IN ROW (11) EXCLUDES CERTAIN SHARES (SEE INSTRUCTIONS) | ☐ |
| 13 | PERCENT OF CLASS REPRESENTED BY AMOUNT IN ROW (11)<br>32.0% | |
| 14 | TYPE OF REPORTING PERSON (SEE INSTRUCTIONS)<br>PN | |

| | | |
|---|---|---|
| 1 | NAMES OF REPORTING PERSONS<br>I.R.S. IDENTIFICATION NOS. OF ABOVE PERSONS (ENTITIES ONLY)<br>TVM Life Science Ventures VI GmbH & Co. KG | |
| 2 | CHECK THE APPROPRIATE BOX IF A MEMBER OF A GROUP | (a) ☐<br>(b) ☐ |
| 3 | SEC USE ONLY | |
| 4 | SOURCE OF FUNDS (SEE INSTRUCTIONS)<br>WC | |
| 5 | CHECK BOX IF DISCLOSURE OF LEGAL PROCEEDINGS IS REQUIRED PURSUANT TO ITEM 2(D) OR 2(E) | ☐ |
| 6 | CITIZENSHIP OR PLACE OF ORGANIZATION<br>Germany | |
| NUMBER OF SHARES BENEFICIALLY OWNED BY EACH REPORTING PERSON WITH | 7 | SOLE VOTING POWER<br>0 shares |
| | 8 | SHARED VOTING POWER<br>2,397,309 shares |
| | 9 | SOLE DISPOSITIVE POWER<br>0 shares |
| | 10 | SHARED DISPOSITIVE POWER<br>2,397,309 shares |
| 11 | AGGREGATE AMOUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON<br>2,397,309 shares | |
| 12 | CHECK BOX IF THE AGGREGATE AMOUNT IN ROW (11) EXCLUDES CERTAIN SHARES (SEE INSTRUCTIONS) | ☐ |
| 13 | PERCENT OF CLASS REPRESENTED BY AMOUNT IN ROW (11)<br>32.0% | |
| 14 | TYPE OF REPORTING PERSON (SEE INSTRUCTIONS)<br>PN | |

| | | |
|---|---|---|
| 1 | NAMES OF REPORTING PERSONS<br>I.R.S. IDENTIFICATION NOS. OF ABOVE PERSONS (ENTITIES ONLY)<br>TVM Life Science Ventures Management VI L.P. | |
| 2 | CHECK THE APPROPRIATE BOX IF A MEMBER OF A GROUP | (a) ☐<br>(b) ☐ |
| 3 | SEC USE ONLY | |
| 4 | SOURCE OF FUNDS (SEE INSTRUCTIONS)<br>AF | |
| 5 | CHECK BOX IF DISCLOSURE OF LEGAL PROCEEDINGS IS REQUIRED PURSUANT TO ITEM 2(D) OR 2(E) | ☐ |
| 6 | CITIZENSHIP OR PLACE OF ORGANIZATION<br>Cayman Islands | |
| NUMBER OF SHARES BENEFICIALLY OWNED BY EACH REPORTING PERSON WITH | 7 | SOLE VOTING POWER<br>0 shares |
| | 8 | SHARED VOTING POWER<br>2,397,309 shares |
| | 9 | SOLE DISPOSITIVE POWER<br>0 shares |
| | 10 | SHARED DISPOSITIVE POWER<br>2,397,309 shares |
| 11 | AGGREGATE AMOUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON<br>2,397,309 shares | |
| 12 | CHECK BOX IF THE AGGREGATE AMOUNT IN ROW (11) EXCLUDES CERTAIN SHARES (SEE INSTRUCTIONS) | ☐ |
| 13 | PERCENT OF CLASS REPRESENTED BY AMOUNT IN ROW (11)<br>32.0% | |
| 14 | TYPE OF REPORTING PERSON (SEE INSTRUCTIONS)<br>PN | |

| | | |
|---|---|---|
| 1 | NAMES OF REPORTING PERSONS<br>I.R.S. IDENTIFICATION NOS. OF ABOVE PERSONS (ENTITIES ONLY)<br>TVM Life Science Ventures VII L.P. | |
| 2 | CHECK THE APPROPRIATE BOX IF A MEMBER OF A GROUP | (a) ☐<br>(b) ☐ |
| 3 | SEC USE ONLY | |
| 4 | SOURCE OF FUNDS (SEE INSTRUCTIONS)<br>WC | |
| 5 | CHECK BOX IF DISCLOSURE OF LEGAL PROCEEDINGS IS REQUIRED PURSUANT TO ITEM 2(D) OR 2(E) | ☐ |
| 6 | CITIZENSHIP OR PLACE OF ORGANIZATION<br>Canada | |
| NUMBER OF SHARES BENEFICIALLY OWNED BY EACH REPORTING PERSON WITH | 7 | SOLE VOTING POWER<br>0 shares |
| | 8 | SHARED VOTING POWER<br>2,397,309 shares |
| | 9 | SOLE DISPOSITIVE POWER<br>0 shares |
| | 10 | SHARED DISPOSITIVE POWER<br>2,397,309 shares |
| 11 | AGGREGATE AMOUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON<br>2,397,309 shares | |
| 12 | CHECK BOX IF THE AGGREGATE AMOUNT IN ROW (11) EXCLUDES CERTAIN SHARES (SEE INSTRUCTIONS) | ☐ |
| 13 | PERCENT OF CLASS REPRESENTED BY AMOUNT IN ROW (11)<br>32.0% | |
| 14 | TYPE OF REPORTING PERSON (SEE INSTRUCTIONS)<br>PN | |

| | | |
|---|---|---|
| 1 | NAMES OF REPORTING PERSONS<br>I.R.S. IDENTIFICATION NOS. OF ABOVE PERSONS (ENTITIES ONLY)<br>TVM LSV VII (GP) Ltd. | |
| 2 | CHECK THE APPROPRIATE BOX IF A MEMBER OF A GROUP | (a) ☐<br>(b) ☐ |
| 3 | SEC USE ONLY | |
| 4 | SOURCE OF FUNDS (SEE INSTRUCTIONS)<br>AF | |
| 5 | CHECK BOX IF DISCLOSURE OF LEGAL PROCEEDINGS IS REQUIRED PURSUANT TO ITEM 2(D) OR 2(E) | ☐ |
| 6 | CITIZENSHIP OR PLACE OF ORGANIZATION<br>Jersey | |
| NUMBER OF SHARES BENEFICIALLY OWNED BY EACH REPORTING PERSON WITH | 7 | SOLE VOTING POWER<br>0 shares |
| | 8 | SHARED VOTING POWER<br>2,397,309 shares |
| | 9 | SOLE DISPOSITIVE POWER<br>0 shares |
| | 10 | SHARED DISPOSITIVE POWER<br>2,397,309 shares |
| 11 | AGGREGATE AMOUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON<br>2,397,309 shares | |
| 12 | CHECK BOX IF THE AGGREGATE AMOUNT IN ROW (11) EXCLUDES CERTAIN SHARES (SEE INSTRUCTIONS) | ☐ |
| 13 | PERCENT OF CLASS REPRESENTED BY AMOUNT IN ROW (11)<br>32.0% | |
| 14 | TYPE OF REPORTING PERSON (SEE INSTRUCTIONS)<br>CO | |

| | | |
|---|---|---|
| 1 | NAMES OF REPORTING PERSONS<br>I.R.S. IDENTIFICATION NOS. OF ABOVE PERSONS (ENTITIES ONLY)<br>Hubert Birner | |
| 2 | CHECK THE APPROPRIATE BOX IF A MEMBER OF A GROUP | (a) ☐<br>(b) ☐ |
| 3 | SEC USE ONLY | |
| 4 | SOURCE OF FUNDS (SEE INSTRUCTIONS)<br>AF | |
| 5 | CHECK BOX IF DISCLOSURE OF LEGAL PROCEEDINGS IS REQUIRED PURSUANT TO ITEM 2(D) OR 2(E) | ☐ |
| 6 | CITIZENSHIP OR PLACE OF ORGANIZATION<br>German citizen | |
| NUMBER OF SHARES BENEFICIALLY OWNED BY EACH REPORTING PERSON WITH | 7 | SOLE VOTING POWER<br>0 shares |
| | 8 | SHARED VOTING POWER<br>2,397,309 shares |
| | 9 | SOLE DISPOSITIVE POWER<br>0 shares |
| | 10 | SHARED DISPOSITIVE POWER<br>2,397,309 shares |
| 11 | AGGREGATE AMOUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON<br>2,397,309 shares | |
| 12 | CHECK BOX IF THE AGGREGATE AMOUNT IN ROW (11) EXCLUDES CERTAIN SHARES (SEE INSTRUCTIONS) | ☐ |
| 13 | PERCENT OF CLASS REPRESENTED BY AMOUNT IN ROW (11)<br>32.0% | |
| 14 | TYPE OF REPORTING PERSON (SEE INSTRUCTIONS)<br>IN | |

| | | |
|---|---|---|
| 1 | NAMES OF REPORTING PERSONS<br>I.R.S. IDENTIFICATION NOS. OF ABOVE PERSONS (ENTITIES ONLY)<br>Luc Marengère | |
| 2 | CHECK THE APPROPRIATE BOX IF A MEMBER OF A GROUP | (a) ☐<br>(b) ☐ |
| 3 | SEC USE ONLY | |
| 4 | SOURCE OF FUNDS (SEE INSTRUCTIONS)<br>AF | |
| 5 | CHECK BOX IF DISCLOSURE OF LEGAL PROCEEDINGS IS REQUIRED PURSUANT TO ITEM 2(D) OR 2(E) | ☐ |
| 6 | CITIZENSHIP OR PLACE OF ORGANIZATION<br>Canadian citizen | |
| NUMBER OF SHARES BENEFICIALLY OWNED BY EACH REPORTING PERSON WITH | 7 | SOLE VOTING POWER<br>0 shares |
| | 8 | SHARED VOTING POWER<br>1,422,709 shares |
| | 9 | SOLE DISPOSITIVE POWER<br>0 shares |
| | 10 | SHARED DISPOSITIVE POWER<br>1,422,709 shares |
| 11 | AGGREGATE AMOUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON<br>1,422,709 shares | |
| 12 | CHECK BOX IF THE AGGREGATE AMOUNT IN ROW (11) EXCLUDES CERTAIN SHARES (SEE INSTRUCTIONS) | ☐ |
| 13 | PERCENT OF CLASS REPRESENTED BY AMOUNT IN ROW (11)<br>19.0% | |
| 14 | TYPE OF REPORTING PERSON (SEE INSTRUCTIONS)<br>IN | |

| | | |
|---|---|---|
| 1 | NAMES OF REPORTING PERSONS<br>I.R.S. IDENTIFICATION NOS. OF ABOVE PERSONS (ENTITIES ONLY)<br>Stefan Fischer | |
| 2 | CHECK THE APPROPRIATE BOX IF A MEMBER OF A GROUP | (a) ☐<br>(b) ☐ |
| 3 | SEC USE ONLY | |
| 4 | SOURCE OF FUNDS (SEE INSTRUCTIONS)<br>AF | |
| 5 | CHECK BOX IF DISCLOSURE OF LEGAL PROCEEDINGS IS REQUIRED PURSUANT TO ITEM 2(D) OR 2(E) | ☐ |
| 6 | CITIZENSHIP OR PLACE OF ORGANIZATION<br>German citizen | |
| NUMBER OF SHARES BENEFICIALLY OWNED BY EACH REPORTING PERSON WITH | 7 | SOLE VOTING POWER<br>0 shares |
| | 8 | SHARED VOTING POWER<br>2,397,309 shares |
| | 9 | SOLE DISPOSITIVE POWER<br>0 shares |
| | 10 | SHARED DISPOSITIVE POWER<br>2,397,309 shares |
| 11 | AGGREGATE AMOUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON<br>2,397,309 shares | |
| 12 | CHECK BOX IF THE AGGREGATE AMOUNT IN ROW (11) EXCLUDES CERTAIN SHARES (SEE INSTRUCTIONS) | ☐ |
| 13 | PERCENT OF CLASS REPRESENTED BY AMOUNT IN ROW (11)<br>32.0% | |
| 14 | TYPE OF REPORTING PERSON (SEE INSTRUCTIONS)<br>IN | |

| | | |
|---|---|---|
| 1 | NAMES OF REPORTING PERSONS<br>I.R.S. IDENTIFICATION NOS. OF ABOVE PERSONS (ENTITIES ONLY)<br>Helmut Schühsler | |
| 2 | CHECK THE APPROPRIATE BOX IF A MEMBER OF A GROUP | (a) ☐<br>(b) ☐ |
| 3 | SEC USE ONLY | |
| 4 | SOURCE OF FUNDS (SEE INSTRUCTIONS)<br>AF | |
| 5 | CHECK BOX IF DISCLOSURE OF LEGAL PROCEEDINGS IS REQUIRED PURSUANT TO ITEM 2(D) OR 2(E) | ☐ |
| 6 | CITIZENSHIP OR PLACE OF ORGANIZATION<br>Austrian citizen | |
| NUMBER OF SHARES BENEFICIALLY OWNED BY EACH REPORTING PERSON WITH | 7 | SOLE VOTING POWER<br>0 shares |
| | 8 | SHARED VOTING POWER<br>2,397,309 shares |
| | 9 | SOLE DISPOSITIVE POWER<br>0 shares |
| | 10 | SHARED DISPOSITIVE POWER<br>2,397,309 shares |
| 11 | AGGREGATE AMOUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON<br>2,397,309 shares | |
| 12 | CHECK BOX IF THE AGGREGATE AMOUNT IN ROW (11) EXCLUDES CERTAIN SHARES (SEE INSTRUCTIONS) | ☐ |
| 13 | PERCENT OF CLASS REPRESENTED BY AMOUNT IN ROW (11)<br>32.0% | |
| 14 | TYPE OF REPORTING PERSON (SEE INSTRUCTIONS)<br>IN | |

| | | |
|---|---|---|
| 1 | NAMES OF REPORTING PERSONS<br>I.R.S. IDENTIFICATION NOS. OF ABOVE PERSONS (ENTITIES ONLY)<br>Mark Wanless | |
| 2 | CHECK THE APPROPRIATE BOX IF A MEMBER OF A GROUP | (a) ☐<br>(b) ☐ |
| 3 | SEC USE ONLY | |
| 4 | SOURCE OF FUNDS (SEE INSTRUCTIONS)<br>AF | |
| 5 | CHECK BOX IF DISCLOSURE OF LEGAL PROCEEDINGS IS REQUIRED PURSUANT TO ITEM 2(D) OR 2(E) | ☐ |
| 6 | CITIZENSHIP OR PLACE OF ORGANIZATION<br>British citizen | |
| NUMBER OF SHARES BENEFICIALLY OWNED BY EACH REPORTING PERSON WITH | 7 | SOLE VOTING POWER<br>0 shares |
| | 8 | SHARED VOTING POWER<br>1,422,709 shares |
| | 9 | SOLE DISPOSITIVE POWER<br>0 shares |
| | 10 | SHARED DISPOSITIVE POWER<br>1,422,709 shares |
| 11 | AGGREGATE AMOUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON<br>1,422,709 shares | |
| 12 | CHECK BOX IF THE AGGREGATE AMOUNT IN ROW (11) EXCLUDES CERTAIN SHARES (SEE INSTRUCTIONS) | ☐ |
| 13 | PERCENT OF CLASS REPRESENTED BY AMOUNT IN ROW (11)<br>19.0% | |
| 14 | TYPE OF REPORTING PERSON (SEE INSTRUCTIONS)<br>IN | |

| | | |
|---|---|---|
| 1 | NAMES OF REPORTING PERSONS<br>I.R.S. IDENTIFICATION NOS. OF ABOVE PERSONS (ENTITIES ONLY)<br>Gary Leatt | |
| 2 | CHECK THE APPROPRIATE BOX IF A MEMBER OF A GROUP | (a) ☐<br>(b) ☐ |
| 3 | SEC USE ONLY | |
| 4 | SOURCE OF FUNDS (SEE INSTRUCTIONS)<br>AF | |
| 5 | CHECK BOX IF DISCLOSURE OF LEGAL PROCEEDINGS IS REQUIRED PURSUANT TO ITEM 2(D) OR 2(E) | ☐ |
| 6 | CITIZENSHIP OR PLACE OF ORGANIZATION<br>British citizen | |
| NUMBER OF SHARES BENEFICIALLY OWNED BY EACH REPORTING PERSON WITH | 7 | SOLE VOTING POWER<br>0 shares |
| | 8 | SHARED VOTING POWER<br>1,422,709 shares |
| | 9 | SOLE DISPOSITIVE POWER<br>0 shares |
| | 10 | SHARED DISPOSITIVE POWER<br>1,422,709 shares |
| 11 | AGGREGATE AMOUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON<br>1,422,709 shares | |
| 12 | CHECK BOX IF THE AGGREGATE AMOUNT IN ROW (11) EXCLUDES CERTAIN SHARES (SEE INSTRUCTIONS) | ☐ |
| 13 | PERCENT OF CLASS REPRESENTED BY AMOUNT IN ROW (11)<br>19.0% | |
| 14 | TYPE OF REPORTING PERSON (SEE INSTRUCTIONS)<br>IN | |

**Schedule 13D**

**Item 1. Security and Issuer .**

This statement relates to the common stock, $.01 par value (the "Common Stock") of Acer Therapeutics Inc. (the "Issuer") having its principal executive office at One Gateway Center, Suite 351(300 Washington Street) Newton, MA 02458.

**Item 2. Identity and Background .**

This statement is being filed by:

(a) TVM Life Science Ventures VI L.P. ("TVM VI Cayman");

(b) TVM Life Science Ventures VI GmbH & Co. KG ("TVM VI German");

(c) TVM Life Science Ventures Management VI L.P. ("TVM VI Management"), which is the managing limited partner of TVM VI Cayman and TVM VI German;

(d) TVM Life Science Ventures VII L.P. ("TVM VII");

(e) TVM LSV VII (GP) Ltd. ("TVM VII GP"), which is the general partner of TVM VII;

(f) Hubert Birner ("Birner"), Stefan Fischer ("Fischer") and Helmut Schühsler ("Schühsler") (collectively, the "TVM VI Managers"), who are the members of the investment committee of TVM VI Management and members of the investment committee of TVM VII GP; and,

(g) Luc Marengère ("Marengère"), Mark Wanless ("Wanless"), and Gary Leatt ("Leatt") (collectively with Birner, Fischer, and Schühsler, the "Managers"), who are also members of the investment committee of TVM VII GP.

The persons named in this Item 2 are referred to individually herein as a "Reporting Person" and collectively as the "Reporting Persons."

The address of the principal business office of TVM VI Cayman, TVM VI German, TVM VI Management and the Managers is TVM Capital Ottostrasse 4, 80333 Munich, Germany. The address of the principal business office of TVM VII and TVM VII GP is 204, Rue Notre-Dame Ouest, Bureau 350, Montreal A8 H2Y 1T3, Canada.

The principal business of TVM VI Cayman, TVM VI German and TVM VII is to invest in and assist life science growth-oriented businesses. The principal business of TVM VI Management is to act as the managing limited partner of TVM VI Cayman and TVM VI German. The principal business of TVM VII GP is to act as the general partner of TVM VII. The principal business of the TVM VI Managers is to act as members of the investment committee of TVM VI Management and for a number of affiliated partnerships with similar businesses. The principal business of each of the Managers is to act as members of the investment committee of TVM VII GP and for a number of affiliated partnerships with similar businesses.

During the five years prior to the date hereof, none of the Reporting Persons has been convicted in a criminal proceeding or has been a party to a civil proceeding ending in a judgment, decree or final order enjoining future violations of, or prohibiting or mandating activities subject to, federal or state securities laws or finding any violation with respect to such laws.

TVM VI Cayman is an exempted limited partnership organized under the laws of the Cayman Islands. TVM VI German is a limited partnership organized under the laws of Germany. TVM VII is an exempted limited partnership organized under the laws of Canada. Birner and Fischer are each a German citizen, Schühsler is an Austrian citizen, Marengère is a Canadian citizen, and Wanless and Leatt are each a British citizen.

**Item 3. Source and Amount of Funds or Other Consideration .**

On December 12, 2017, the Issuer completed the closing of an underwritten offering of 916,667 shares of Common Stock (the "Offering"). At the closing of the Offering, TVM VI Cayman purchased an aggregate of 21,271 shares of Common Stock at the offering price of $12.00 per share for an aggregate purchase price to TVM VI Cayman of $255,252. In addition, prior to the Offering, TVM VI Cayman acquired 227,485 shares of the Issuer's Common Stock pursuant to an Agreement and Plan of Merger, dated as of June 30, 2017 (the "Merger Agreement"), pursuant to which a wholly-owned subsidiary of the Issuer merged with and into Acer Therapeutics Inc. ("Acer") and the then outstanding shares of Acer's common stock were cancelled and were automatically converted into the right to receive 1 share of the Issuer's common stock for each share of Acer common stock then held by TVM VI Cayman. TVM VI Cayman now holds a total of 248,756 shares of the Issuer's Common Stock (the "TVM VI Cayman Shares").

At the closing of the Offering, TVM VI German purchased an aggregate of 62,062 shares of Common Stock at the offering price of $12.00 per share for an aggregate purchase price to TVM VI German of $744,744. In addition, prior to the Offering, TVM VI German acquired 663,782 shares of the Issuer's Common Stock pursuant to the Merger Agreement, on the same terms as described above. TVM VI German now holds a total of 725,844 shares of the Issuer's Common Stock (the "TVM VI German Shares").

At the closing of the Offering, TVM VII purchased an aggregate of 250,000 shares of Common Stock at the offering price of $12.00 per share for an aggregate purchase price to TVM VII of $3,000,000. In addition, prior to the Offering, TVM VII acquired 1,172,709 shares of the Issuer's Common Stock pursuant the Merger Agreement, on the same terms as described above. TVM VII now holds a total of 1,422,709 shares of the Issuer's Common Stock (the "TVM VII Shares" and, collectively with TVM VI Cayman Shares and TVM VI German Shares, the "Total TVM Shares").

**Item 4. Purpose of Transaction .**

Each of TVM VI Cayman, TVM VI German and TVM VII acquired the TVM VI Cayman Shares, TVM VI German Shares and TVM VII Shares, as applicable, for investment purposes. Depending on market conditions, its continuing evaluation of the business and prospects of the Issuer and other factors, TVM VI Cayman, TVM VI German, TVM VII and other Reporting Persons may dispose of or acquire additional shares of the Issuer. Except as set forth above, none of the Reporting Persons has any present plans which relate to or would result in:

(a) The acquisition by any person of additional securities of the Issuer, or the disposition of securities of the Issuer;

(b) An extraordinary corporate transaction, such as a merger, reorganization or liquidation, involving the Issuer or any of its subsidiaries;

(c) A sale or transfer of a material amount of assets of the Issuer or any of its subsidiaries;

(d) Any change in the present board of directors or management of the Issuer, including any plans or proposals to change the number or term of directors or to fill any existing vacancies on the board;

(e) Any material change in the present capitalization or dividend policy of the Issuer;

(f) Any other material change in the Issuer's business or corporate structure;

(g) Changes in the Issuer's charter, bylaws or instruments corresponding thereto or other actions which may impede the acquisition of control of the Issuer by any person;

(h) Causing a class of securities of the Issuer to be delisted from a national securities exchange or to cease to be authorized to be quoted in an inter-dealer quotation system of a registered national securities association;

(i) A class of equity securities of the Issuer becoming eligible for termination of registration pursuant to Section 12(g)(4) of the Securities Exchange Act of 1934; or

(j) Any action similar to any of those enumerated above.

**Item 5. Interest in Securities of the Issuer .**

(a) TVM VI Cayman is the record owner of the TVM VI Cayman Shares. As the managing limited partner of TVM VI Cayman, TVM VI Management may be deemed to own beneficially the TVM VI Cayman Shares. As the members of the investment committee of TVM VI Management, each of the TVM VI Managers may be deemed to own beneficially the TVM VI Cayman Shares.

TVM VI German is the record owner of the TVM VI German Shares. As the managing limited partner of TVM VI German, TVM VI Management may be deemed to own beneficially the TVM VI German Shares. As the members of the investment committee of TVM VI Management, each of the TVM VI Managers may be deemed to own beneficially the TVM VI German Shares.

TVM VII is the record owner of the TVM VII Shares. As the general partner of TVM VII, TVM VII GP may be deemed to own beneficially the TVM VII Shares. As the members of the investment committee of TVM VII GP, each of the Managers may be deemed to own beneficially the TVM VII Shares.

By virtue of their relationship as affiliated entities, whose controlling entities have the same individual controlling persons, each of TVM VI Cayman, TVM VI German and TVM VII may be deemed to share the power to direct the disposition and vote of the Total TVM Shares.

Each Reporting Person disclaims beneficial ownership of the Total TVM Shares other than those shares which such person owns of record.

The percentage of outstanding Common Stock of the Issuer which may be deemed to be beneficially owned by each Reporting Person is set forth on Line 13 of such Reporting Person's cover sheet. Such percentage was calculated based on the 7,497,433 shares of Common Stock outstanding, including (i) 7,367,433 shares of Common Stock reported to be outstanding immediately following the offering described in the Issuer's prospectus supplement filed pursuant to Rule 424(b)(3) and filed with the Securities and Exchange Commission (the "SEC") on November 1, 2017, and (ii) 130,000 additional shares of Common Stock purchased by the underwriters and described in the Issuer's Current Report on Form 8-K filed with the SEC on December 27, 2017.

(b) Regarding the number of shares as to which such person has:

(i) sole power to vote or to direct the vote: See line 7 of cover sheets

(ii) shared power to vote or to direct the vote: See line 8 of cover sheets

(iii) sole power to dispose or to direct the disposition: See line 9 of cover sheets

(iv) shared power to dispose or to direct the disposition: See line 10 of cover sheets

(c) Except as set forth in Item 3 above, none of the Reporting Persons has effected any transaction in the Common Stock during the last 60 days.

(d) No other person is known to have the right to receive or the power to direct the receipt of dividends from, or any proceeds from the sale of, Shares beneficially owned by any of the Reporting Persons.

(e) Not applicable.

**Item 6. Contracts, Arrangements, Undertakings or Relationships with Respect to Securities of the Issuer .**

Each of TVM VI Cayman, TVM VI German and TVM VII has entered into a lock-up agreement with the underwriters of the Offering pursuant to which each such Reporting Person has generally agreed, subject to certain exceptions, not to sell, offer to sell, contract or grant any option to sell, effect any short sale, grant any option, right or warrant to purchase, pledge, transfer, establish an open "put equivalent position" within the meaning of Rule 16a-l(h) under the Exchange Act, lend or otherwise dispose of, or enter into any swap or other arrangement that transfers, in whole or in part, the economic consequences of ownership of, any shares of Common Stock, options or warrants to acquire shares of Common Stock, or securities exchangeable or exercisable for or convertible into shares of Common Stock currently or hereafter owned either of record or beneficially, or publicly announce any intention to do any of the foregoing, or make any demand for, or exercise any right to, registration with the SEC of any shares of Common Stock, options or warrants to acquire shares of Common Stock, or securities exchangeable or exercisable for or convertible into shares of Common Stock for a period of 90 days after December 12, 2017. William Blair & Company, L.L.C., acting as representative for the underwriters , in its sole discretion, may release the Common Stock and other securities subject to the lock-up agreements described above in whole or in part at any time.

**Item 7. Material to be Filed as Exhibits .**

Exhibit 1 – Agreement regarding filing of joint Schedule 13D.

Exhibit 2 – Power of Attorney regarding filings under the Securities Exchange Act of 1934, as amended.

**SIGNATURE**

After reasonable inquiry and to the best of its knowledge and belief, each of the undersigned certifies that the information set forth in this statement is true, complete and correct.

EXECUTED this 16th day of February, 2018.

TVM LIFE SCIENCE VENTURES VI L.P.

By: TVM LIFE SCIENCE VENTURES MANAGEMENT VI L.P.,
Managing Limited Partner

By: /s/ Josef Moosholzer
Josef Moosholzer
Treasurer

TVM LIFE SCIENCE VENTURES VI GMBH & CO. KG

By: TVM LIFE SCIENCE VENTURES MANAGEMENT VI L.P.,
Managing Limited Partner

By: /s/ Josef Moosholzer
Josef Moosholzer
Treasurer

TVM LIFE SCIENCE VENTURES MANAGEMENT VI L.P.

By: /s/ Josef Moosholzer
Josef Moosholzer
Treasurer

TVM LIFE SCIENCE VENTURES VII L.P.

By: TVM LSV VII (GP) LTD.,
its General Partner

By: /s/ Josef Moosholzer
Josef Moosholzer
Treasurer

TVM LSV VII (GP) LTD.

By: /s/ Josef Moosholzer
Josef Moosholzer
Treasurer

*
Hubert Birner

/s/ Luc Marengère
Luc Marengère

/s/ Stefan Fischer
Stefan Fischer

*
Helmut Schühsler

/s/ Mark Wanless
Mark Wanless

/s/ Gary Leatt
Gary Leatt

*/s/ Stefan Fischer
Stefan Fischer
As attorney-in-fact

This Schedule 13D was executed by Stefan Fischer on behalf of Birner and Schühsler pursuant to a Power of Attorney a copy of which is attached as Exhibit 2.

**EXHIBIT 1**

**AGREEMENT**

Pursuant to Rule 13d-1(k)(1) under the Securities Exchange Act of 1934, the undersigned hereby agree that only one statement containing the information required by Schedule 13D need be filed with respect to the ownership by each of the undersigned of shares of stock of Acer Therapeutics Inc.

EXECUTED this 16th day of February, 2018.

TVM LIFE SCIENCE VENTURES VI L.P.

By: TVM LIFE SCIENCE VENTURES MANAGEMENT VI L.P.,
Managing Limited Partner

By: /s/ Josef Moosholzer
Josef Moosholzer
Treasurer

TVM LIFE SCIENCE VENTURES VI GMBH & CO. KG

By: TVM LIFE SCIENCE VENTURES MANAGEMENT VI L.P.,
Managing Limited Partner

By: /s/ Josef Moosholzer
Josef Moosholzer
Treasurer

TVM LIFE SCIENCE VENTURES MANAGEMENT VI L.P.

By: /s/ Josef Moosholzer
Josef Moosholzer
Treasurer

TVM LIFE SCIENCE VENTURES VII L.P.

By: TVM LSV VII (GP) LTD.,
its General Partner

By: /s/ Josef Moosholzer
Josef Moosholzer
Treasurer

TVM LSV VII (GP) LTD.

By: /s/ Josef Moosholzer
Josef Moosholzer
Treasurer

*
Hubert Birner

/s/ Luc Marengère
Luc Marengère

/s/ Stefan Fischer
Stefan Fischer

*
Helmut Schühsler

/s/ Mark Wanless
Mark Wanless

/s/ Gary Leatt
Gary Leatt

*/s/ Stefan Fischer
Stefan Fischer
As attorney-in-fact

This Agreement relating to Schedule 13D was executed by Stefan Fischer on behalf of Birner and Schühsler pursuant to a Power of Attorney a copy of which is attached hereto as Exhibit 2.

**EXHIBIT 2**

**POWER OF ATTORNEY**

KNOW ALL MEN BY THESE PRESENTS , that the undersigned hereby constitutes and appoints Josef Moosholzer, Stefan Fischer and Sascha Berger , and each of them, with full power to act without the others, his or her true and lawful attorney- in-fact , with full power of substitution , to sign any and all instruments , certificates and documents that may be necessary , desirable or appropriate to be executed on behalf of himself as an individual or in his or her capacity as a direct or indirect general partner , director , officer or manager of any partnership , corporation or limited liability company, pursuant to section 13 or 16 of the Securities Exchange Act of 1934 , as amended (the " Exchange Act") , and any and all regulations promulgated thereunder , and to file the same, with all exhibits thereto , and any other documents in connection therewith , with the Securities and Exchange Commission, and with any other entity when and if such is mandated by the Exchange Act or by the F i nancial Industry Regulatory Authority , granting unto said attorney-in- fact full power and authority to do and perform each and every act and thing necessary , desirable or appropriate , fully to all intents and purposes as he or she might or could do in person , thereby ratifying and confining all that said attorney-in-fact , or his or her substitutes , may lawfully do or cause to be done by virtue hereof.

IN WITNESS WHEREOF , this Power of Attorney has been signed as of the 29th day of June 2017.

/s/ Hubert Birner
Hubert Birner

/s/ Stefan Fischer
Stefan Fischer

/s/ Helmut Sch ühsler
Helmut Schühsler