OSIRIS THERAPEUTICS, INC. Form SC 13G/A February 14, 2008

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

SCHEDULE 13G/A

Under the Securities Exchange Act of 1934 (Amendment No. 1)*

Osiris Therapeutics, Inc.

(Name of Issuer)

Common Stock

(Title of Class of Securities)

68827R108

(CUSIP Number)

December 31, 2007

(Date of Event Which Requires Filing of this Statement)

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

- o Rule 13d-1(b)
- x Rule 13d-1(c)
- o Rule 13d-1(d)

The information required in 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).

^{*}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 the disclosures provided in a prior cover page.

CUSIP No. 68827R108

| 1. | Names of Reporting Persons Thomas Schmidheiny | | |
|-----------------------|--|----------------------------|----------------------------------|
| 2. | Check the Appropriate Box if | a Member of a Group (See | Instructions) |
| | (a) | 0 | |
| | (b) | X | |
| 3. | SEC Use Only | | |
| 4. | Citizenship or Place of Organi Switzerland | zation | |
| | 5. | | Sole Voting Power 395,154 |
| Number of | | | |
| Shares | 6. | | Shared Voting Power |
| Beneficially Owned by | | | 2,408,944 |
| Each | 7. | | Sole Dispositive Power |
| Reporting | ,. | | 395,154 |
| Person With | | | , |
| | 8. | | Shared Dispositive Power |
| | | | 2,408,944 |
| 9. | Aggregate Amount Beneficiall 2,804,098 | ly Owned by Each Reportin | g Person |
| 10. | Check if the Aggregate Amoun | nt in Row (9) Excludes Cer | tain Shares (See Instructions) o |
| 11. | Percent of Class Represented by 8.9% | by Amount in Row (9) | |
| 12. | Type of Reporting Person (See IN | e Instructions) | |
| | | | |

2

CUSIP No. 68827R108

| 1. | Names of Reporting Persons BIH SA | | |
|---|---|--------------------------------------|------------------------------------|
| 2. | Check the Appropriate Box is (a) (b) | f a Member of a Group (See o x | e Instructions) |
| 3. | SEC Use Only | | |
| 4. | Citizenship or Place of Organ Neuchatel, Switzerland | nization | |
| | 5. | | Sole Voting Power 0 |
| Number of Shares Beneficially Owned by | 6. | | Shared Voting Power 2,408,944 |
| Each Reporting Person With | 7. | | Sole Dispositive Power 0 |
| | 8. | | Shared Dispositive Power 2,408,944 |
| 9. | Aggregate Amount Beneficia 2,408,944 | ılly Owned by Each Reporti | ing Person |
| 10. | Check if the Aggregate Amor | unt in Row (9) Excludes Ce | ertain Shares (See Instructions) o |
| 11. | Percent of Class Represented 7.6% | by Amount in Row (9) | |
| 12. | Type of Reporting Person (So 00 | ee Instructions) | |
| | | | |

| CUSIP No. 688271 | R108 | | |
|------------------|-------------------------|---|---|
| Item 1. | | | |
| | (a) | Name of Issuer | |
| | , | Osiris Therapeutics, Inc. | |
| | (b) | Address of Issuer s Principal | Executive Offices |
| | | 7015 Albert Einstein Drive | |
| | | | |
| | | Columbia, Maryland 21046 | |
| | | | |
| Item 2. | | M CD E'I' | |
| | (a) | Name of Person Filing | |
| | | This statement is filed by: | |
| | | | |
| | | | |
| | | (;) DIII C | A a common arganized under the laws of Switzenland with respect to |
| | | (i) BIH S. shares of Common Stock dire | A, a company organized under the laws of Switzerland, with respect to |
| | | shares of Common Stock dife | city owned by it, and |
| | | | |
| | | | |
| | | (ii) Thomas | s Schmidheiny, who is the controlling shareholder and chairman of BIH |
| | | | s of Common Stock held by BIH SA and indirectly beneficially owned |
| | | • | tion and (B) shares of Common Stock directly owned by him. |
| | | cy cy co care p | (=) |
| | | | |
| | | | |
| | | BIH SA and Mr. Schmidhein | y are hereinafter sometimes collectively referred to as the Reporting |
| | | Persons . | |
| | (b) | | s Office or, if none, Residence |
| | | | business office of BIH SA is 23 Faubourg de l Hopital, 2000 Neuchatel, |
| | | | sidence of Mr. Schmidheiny is Zurcherstrasse 156, 8645 Jona, |
| | () | Switzerland. | |
| | (c) | Citizenship | rad under the laws of Switzenland. Mr. Schmidheim is a Swigs citizen |
| | (d) | Title of Class of Securities | zed under the laws of Switzerland. Mr. Schmidheiny is a Swiss citizen. |
| | (u) | | \$0.001 per share (Common Stock). |
| | (e) | CUSIP Number | φοισσι per share (Common Stock). |
| | (0) | 68827R108 | |
| | | | |
| Item 3. | If this statement is fi | led pursuant to §§240.13d-1(| b) or 240.13d-2(b) or (c), check whether the person filing is a: |
| | (a) | 0 | Broker or dealer registered under section 15 of the Act (15 U.S.C. 78o). |
| | (b) | 0 | Bank as defined in section 3(a)(6) of the Act (15 U.S.C. 78c). |
| | | O . | Insurance company as defined in section 3(a)(19) of the Act (15 |
| | (c) | o | U.S.C. 78c). |
| | (d) | o | Investment company registered under section 8 of the Investment |
| | | | Company Act of 1940 (15 U.S.C. 80a-8). |
| | (e) | О | An investment adviser in accordance with §240.13d-1(b)(1)(ii)(E); |
| | (f) | 0 | An employee benefit plan or endowment fund in accordance with |
| | (g) | 0 | \$240.13d-1(b)(1)(ii)(F); A parent holding company or control person in accordance with |
| | (g) | 0 | \$240.13d-1(b)(1)(ii)(G); |
| | (h) | 0 | A savings association as defined in Section 3(b) of the Federal |
| | . / | | Deposit Insurance Act (12 U.S.C. 1813); |
| | (i) | 0 | A church plan that is excluded from the definition of an investment |
| | | | company under section 3(c)(14) of the Investment Company Act of |
| | | | 10/0 (15 H S C 80a-3): |

1940 (15 U.S.C. 80a-3);

(j) o Group, in accordance with \$240.13d-1(b)(1)(ii)(J). Not Applicable.

4

CUSIP No. 68827R108

Item 4. Ownership

Provide the following information regarding the aggregate number and percentage of the class of securities of the issuer identified in Item 1. The percentages used herein are calculated based upon the total numbers of shares of Common Stock issued and outstanding as of January 29, 2008 as reflected in the Issuer s Registration Statement on Form S-3/A dated January 30, 2008. The beneficial ownership of shares of Common Stock by each Reporting Person, as of the date of this Schedule 13G/A, is as follows:

1. BIH SA

(a) Amount beneficially owned: 2,408,944 shares of Common Stock

(b) Percent of class: 7.6%

(c) Number of shares as to which the person has:

(i) Sole power to vote or to direct the vote 0

(ii) Shared power to vote or to direct the vote 2,408,944

(iii) Sole power to dispose or to direct the disposition of 0

(iv) Shared power to dispose or to direct the disposition of 2,408,944

2. Thomas Schmidheiny

(a) Amount beneficially owned: 2,804,098 shares of Common Stock

(b) Percent of class: 8.9%

(c) Number of shares of Common Stock as to which the person has:

(i) Sole power to vote or to direct the vote: 395,154

(ii) Shared power to vote or to direct the vote: 2,408,944

(iii) Sole power to dispose or to direct the disposition of: 395,154

(iv) Shared power to dispose or to direct the disposition of: 2,408,944

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 o.

Not Applicable.

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 Group

Not Applicable.

CUSIP No. 68827R108

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.

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, 2008

BIH SA

By: /s/ Dieter Spaelti

Name: Dieter Spaelti Title: Managing Director

By: /s/ Christian Reber

Name: Christian Reber

Title: Assistant Vice President

THOMAS SCHMIDHEINY

/s/ Thomas Schmidheiny
Thomas Schmidheiny, individually

Attention: Intentional misstatements or omissions of fact constitute Federal criminal violations (see 18 U.S.C. 1001)

EXHIBIT INDEX

Exhibit 1: Joint Filing Agreement, dated as of February 14, 2008, by and between BIH SA and Thomas Schmidheiny.

| CUSIP No. 68827R108 |
|---------------------|
|---------------------|

Exhibit 1

JOINT FILING AGREEMENT PURSUANT TO RULE 13d-1(k)(1)

In accordance with Rule 13d-1(k)(1) under the Securities Exchange Act of 1934, as amended, each of the persons named below agrees to the joint filing of a Statement on Schedule 13G (including amendments thereto) with respect to the common stock, \$0.001 par value, of Osiris Therapeutics, Inc., a Delaware corporation, and further agrees that this Joint Filing Agreement be included as an exhibit to such filings provided that, as contemplated by Section 13d-1(k)(1)(ii), no person shall be responsible for the completeness or accuracy of the information concerning the other persons making the filing, unless such person knows or has reason to believe that such information is inaccurate.

In evidence thereof, the undersigned, being duly authorized, hereby execute this Agreement as of February 14, 2008.

This Agreement may be executed in two or more counterparts, any one of which need not contain the signature of more than one party, but all such parties taken together will constitute part of this Agreement.

BIH SA

By: /s/ Dieter Spaelti Name: Dieter Spaelti Title: Managing Director

By: /s/ Christian Reber

Name: Christian Reber Title: Assistant Vice President

THOMAS SCHMIDHEINY

/s/ Thomas Schmidheiny Thomas Schmidheiny, individually

7