

UNITED STATES
SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

SCHEDULE 13D

Under the Securities Exchange Act of 1934
(Amendment No. 6)*

Integra LifeSciences Holdings Corporation

(Name of Issuer)

Common Stock Par Value \$.01

(Title of Class of Securities)

457985208

(CUSIP Number)

Stuart M. Essig
c/o Integra LifeSciences Holdings Corporation
311 Enterprise Drive
Plainsboro, New Jersey 08536

With a copy to:

Jonathan B. Levy
Lindquist & Vennum P.L.L.P.
4200 IDS Center
Minneapolis, Minnesota 55402
(612) 371-3211

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

April 19, 2009

(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. o

Note: Schedules filed in paper format shall include a signed original and five copies of the schedule, including all exhibits. See Rule 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).

CUSIP No. 457985208

1	NAMES OF REPORTING PERSONS Stuart M. Essig	
2	CHECK THE APPROPRIATE BOX IF A MEMBER OF A GROUP (a) <input type="radio"/> (b) <input type="radio"/>	
3	SEC USE ONLY	
4	SOURCE OF FUNDS PF	
5	CHECK IF DISCLOSURE OF LEGAL PROCEEDINGS IS REQUIRED PURSUANT TO ITEMS 2(d) OR 2(e) <input type="radio"/>	
6	CITIZENSHIP OR PLACE OF ORGANIZATION United States	
NUMBER OF SHARES BENEFICIALLY OWNED BY EACH REPORTING PERSON WITH	7	SOLE VOTING POWER 2,542,479*
	8	SHARED VOTING POWER 0
	9	SOLE DISPOSITIVE POWER 2,542,479*
	10	SHARED DISPOSITIVE POWER 0
11	AGGREGATE AMOUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON 2,542,479*	
12	CHECK IF THE AGGREGATE AMOUNT IN ROW (11) EXCLUDES CERTAIN SHARES <input type="radio"/>	
13	PERCENT OF CLASS REPRESENTED BY AMOUNT IN ROW (11) 9.03%	
14	TYPE OF REPORTING PERSON IN	

* Includes 1,482,086 shares of common stock underlying options to purchase common stock. Options to purchase 1,123,752 shares of common stock are exercisable as of, or within 60 days of, April 19, 2009. Although shares underlying all options held by Mr. Essig are included in the amounts set forth on lines 7, 9 and 11, Mr. Essig disclaims beneficial ownership of the 358,334 shares of common stock underlying options not exercisable as of, or within 60 days of, April 19, 2009. Mr. Essig also disclaims beneficial ownership of restricted stock unit grants of 100,000, 375,000 and 750,000 shares, as he does not have, and will not acquire voting or dispositive power over the shares issuable under such grants until six months and one day following his separation from the Company.

This Amendment No. 6 (“Amendment No. 6”) amends and supplements the statement on Schedule 13D initially filed on November 14, 2005 (the “Original Filing” and, as amended, the “Schedule 13D”) by Stuart M. Essig with respect to Common Stock, \$.01 par value (the “common stock”), of Integra LifeSciences Holdings Corporation (the “Company”). Capitalized terms used and not defined in this Amendment No. 5 have the meanings set forth in the Schedule 13D.

Item 5. Interest in Securities of Issuer

Item 5 of the Schedule 13D is hereby amended and restated in its entirety as follows:

(a) Aggregate number and percentage of class beneficially owned:

As of April 19, 2009, Mr. Essig may be deemed to be the beneficial owner of 2,542,479 shares of common stock. This ownership consists of the following:

(i) 1,060,393 shares of common stock held directly by Mr. Essig; and

(ii) 1,482,086 shares of common stock underlying options to purchase common stock (of which options to purchase 1,123,752 shares of common stock are exercisable as of, or within 60 days of, April 19, 2009).

Based on calculations made in accordance with Rule 13d-3(d), Mr. Essig may be deemed the beneficial owner of 9.03% of the outstanding shares of common stock. This calculation is based on 28,142,997 shares of common stock outstanding as of February 25, 2009.

The above calculations include 358,334 shares of common stock underlying options held by Mr. Essig that are not exercisable as of, or within 60 days of, April 19, 2009. Mr. Essig disclaims beneficial ownership of these shares. Excluding these shares, Mr. Essig would be deemed the beneficial owner of 2,184,145 shares of common stock (or 7.76% of the outstanding shares of common stock).

(b) Voting and Dispositive Power:

Mr. Essig has sole voting and dispositive power over 2,542,479 shares that may be deemed to be beneficially owned by him as of April 19, 2009. This consists of the following (i) the 1,060,393 shares of common stock held directly by Mr. Essig and (ii) 1,482,086 shares of common stock underlying options to purchase common stock, of which Mr. Essig disclaims beneficial ownership with respect to 358,334 shares of common stock as set forth in Item 5(a).

(c) Right to Direct the Receipt of Dividends: Not applicable.

(d) Last Date on Which Reporting Person Ceased to be a 5% Holder: Not Applicable.

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

Not applicable.

Signature

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

Dated: April 19, 2009

Name: /s/ Stuart M. Essig
Stuart M. Essig