UNITED STATES SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

Schedule 13D

Under the Securities Exchange Act of 1934 (Amendment No. 8)

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)

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 Rule 13d-1(e), 13d-1(f) or 13(d)-1(g), check the following box. \Box

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 the disclosures provided in a prior cover page.

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).

CUSIP No. 457985208 Names of reporting persons S.S. or I.R.S. Identification No. of above persons Check the appropriate box if a member of a group (see instructions) (2) (a) \Box <u>(b)</u> □ SEC use only Source of funds (see instructions) Check if disclosure of legal proceedings is required pursuant to Items 2(d) or 2(e) (5) Citizenship or place of organization (6) United States (7) Sole voting power 2,739,580 Number of shares (8) Shared voting power beneficially owned by each (9) Sole dispositive power reporting person 2,739,580 with (10)Shared dispositive power Aggregate amount beneficially owned by each reporting person (11) Check box if the aggregate amount in Row (11) excludes certain shares (see instructions) (12)

Percent of class represented by amount in Row (11)

(14) Type of reporting person (see instructions)

IN

This Amendment No. 8 ("Amendment No. 8") amends and supplements the statement on Schedule 13D initially filed on November 14, 2005 (the "Original Filing" and, as amended by subsequent amendments, 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. 8 have the meanings set forth in the Schedule 13D. On October 23, 2012, the Board of Directors of the Company approved certain withholding that is expected to result in the issuance to Mr. Essig of approximately 920,943 shares of common stock on or about December 12, 2012 pursuant to previously issued contract stock/restricted stock unit grants for which the underlying shares of common stock are issuable within three business days following the first business day that occurs immediately following the six month period after Mr. Essig's separation from the Company. The amount of shares estimated is based on a net calculation including the value of shares withheld to pay for taxes. The actual number of shares to be issued to Mr. Essig will be determined based on the closing price of the Company's common stock on or about December 11, 2012.

Item 2. Identity and Background

(c) Present Principal Occupation or Employment:

Mr. Essig is Managing Member of Prettybrook Partners LLC. Until January 3, 2012, Mr. Essig was Chief Executive Officer of the Company. From January 3, 2012 until June 7, 2012, he was Executive Chairman and then on June 7, 2012, he became non-executive Chairman of the Board of Directors of the Company (when he ceased being an employee).

Item 5. <u>Interest in Securities of Issuer</u>

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 October 23, 2012, Mr. Essig may be deemed to be the beneficial owner of approximately 2,739,580 shares of common stock. This ownership consists of the following:

- (i) 643,637 shares of common stock held directly by Mr. Essig;
- (ii) approximately 920,943 shares of common stock issuable to Mr. Essig on or about December 12, 2012 pursuant to previously awarded contract stock/restricted stock unit grants; and
- (ii) 1,175,000 shares of common stock underlying options to purchase common stock all of which are currently exercisable.

Based on calculations made in accordance with Rule 13d-3(d), Mr. Essig may be deemed the beneficial owner of 10.1% of the outstanding shares of common stock. This calculation is based on 27,045,530 shares of common stock outstanding as of October 22, 2012.

The above calculations include approximately 920,943 shares of common stock that will be distributed to Mr. Essig on December 12, 2012, pursuant to previously issued contract stock/restricted stock unit grants for which the

underlying shares of common stock are issuable within three business days following the first business day that occurs immediately following the six month period after Mr. Essig's separation from the Company. The amount of shares estimated is based on a net calculation including the value of shares withheld to pay for taxes. The actual number of shares to be issued to Mr. Essig will be determined based on the closing price of the Company's common stock on or about December 11 2012.

(b) Voting and Dispositive Power:

Mr. Essig has sole voting and dispositive power over 2,739,580 shares that may be deemed to be beneficially owned by him as of October 23, 2012. This consists of the following: (i) 643,637 shares of common stock held directly by Mr. Essig; (ii) approximately 920,943 shares of common stock issuable to Mr. Essig on or about December 12, 2012 pursuant to previously awarded contract stock/restricted stock unit grants described above; and (ii) 1,175,000 shares of common stock underlying options to purchase common stock that are all currently exercisable.

- (c) Transactions in the Company's securities in the past sixty (60) days: Not applicable.
- (d) Right to Direct the Receipt of Dividends: Not applicable.
- (e) Last Date on Which Reporting Person Ceased to be a 5% Holder: Not Applicable.

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: October 29, 2012

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