GENTA INC DE/ Form SC 13G/A February 14, 2012

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

SCHEDULE 13G Under the Securities Exchange Act of 1934

(Amendment No. 1)*

Genta Incorporated

(Name of Issuer)

Common Shares, \$0.001 par value

(Title of Class of Securities)

37245M801

(CUSIP Number)

February 06, 2012

(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.

13G

Page 2 of 7 Pages

CUSIP No. 37245M801

1. Names of Reporting Persons. I.R.S. Identification Nos. of above persons (entities only). RA Capital Management, LLC 2. Check the Appropriate Box if a Member of a Group (See Instructions) (a) o (b) o 3. SEC Use Only Citizenship or Place of Organization 4. Massachusetts 5. Sole Voting Power 210,536,030 Number of Shares 0 6. **Shared Voting Power** Beneficially Owned by 7. Sole Dispositive Power 210,536,030 Each Reporting Person With 8. Shared Dispositive Power 0 Aggregate Amount Beneficially Owned by Each Reporting Person 9. 210,536,030 Check if the Aggregate Amount in Row (9) Excludes 10. Certain Shares (See Instructions) o Percent of Class Represented by Amount in Row (9) 11. 9.99% Type of Reporting Person (See Instructions) 12. IA

13G

Page 3 of 7 Pages

CUSIP No. 37245M801

1. Names of Reporting Persons. I.R.S. Identification Nos. of above persons (entities only). Peter Kolchinsky 2. Check the Appropriate Box if a Member of a Group (See Instructions) (a) o (b) o 3. SEC Use Only Citizenship or Place of Organization 4. **United States** 5. Sole Voting Power 210,536,030 Number of Shares 0 6. **Shared Voting Power** Beneficially Owned by 7. Sole Dispositive Power 210,536,030 Each Reporting Person With 8. Shared Dispositive Power 0 Aggregate Amount Beneficially Owned by Each Reporting Person 9. 210,536,030 Check if the Aggregate Amount in Row (9) Excludes 10. Certain Shares (See Instructions) o Percent of Class Represented by Amount in Row (9) 11. 9.99% Type of Reporting Person (See Instructions) 12. IN

13G

Page 4 of 7 Pages

CUSIP No. 37245M801

1. Names of Reporting Persons. I.R.S. Identification Nos. of above persons (entities only). RA Capital Healthcare Fund, L.P. 2. Check the Appropriate Box if a Member of a Group (See Instructions) (a) o (b) o 3. SEC Use Only Citizenship or Place of Organization 4. Delaware 5. Sole Voting Power 104,354,981 Number of Shares 0 6. **Shared Voting Power** Beneficially Owned by 7. Sole Dispositive Power 104,354,981 Each Reporting Person With 8. Shared Dispositive Power 0 Aggregate Amount Beneficially Owned by Each Reporting Person 9. 104,354,981 Check if the Aggregate Amount in Row (9) Excludes 10. Certain Shares (See Instructions) o Percent of Class Represented by Amount in Row (9) 11. 4.95% Type of Reporting Person (See Instructions) 12.

CUSIP No. 37245M801

Page 5 of 7 Pages

Item 1.

- (a) Name of Issuer: Genta Incorporated (the "Issuer").
- (b) Address of the Issuer's Principal Executive Offices: 200 Connell Drive, Berkeley Heights, NJ 07922.

Item 2.

- Name of Person Filing: This joint statement on Schedule 13G is being filed by Peter Kolchinsky, RA Capital Management, LLC, and RA Capital Healthcare Fund, L.P., who are collectively referred to herein as the "Reporting Persons." Mr. Kolchinsky (the "Manager") is the manager of RA Capital Management, LLC ("Capital"), which is the investment adviser and sole general partner of RA Capital Healthcare Fund, L.P. ("Fund") and serves as the investment adviser to a separate discretionary account. The Reporting Persons have entered into a Joint Filing Agreement, dated as of the date hereof, a copy of which is filed with this Schedule 13G as Exhibit 1 (which is incorporated herein by reference), pursuant to which the Reporting Persons have agreed to file this statement jointly in accordance with the provisions of Rule 13d-1(k) under the Act.
- (b) Address of Principal Business Office: The principal business office of the Reporting Persons with respect to the shares reported hereunder is 20 Park Plaza, Suite 1200, Boston, MA 02116.
- (c) Citizenship: Capital is a Massachusetts limited liability company. The Fund is a Delaware limited partnership. The Manager is a United States citizen.
- (d) Title and Class of Securities: Common stock ("Common Stock").
- (e) CUSIP Number: 37245M801.

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:

In the aggregate, the Reporting Persons beneficially own 210,536,030 shares of the Common Stock of the Issuer, representing approximately 9.99% of such class of securities which is comprised of 38,523,920 shares of Common Stock and the remaining shares of Common Stock which the Reporting Persons may acquire upon conversion pursuant to the terms of the Issuer's Senior Unsecured Convertible Note due March 2013 (the "C Notes"), the Issuer's Senior Secured Convertible Promissory Note due September 2021 (the "G Notes") and the Issuer's Senior Secured Cash Collateralized Convertible Promissory Note due September 2021 (the "H Notes"). In the aggregate the Reporting Persons own \$591,324.86 principal amount of the C Notes, \$357,304.80 principal amount of the D Notes, \$266,666.67 principal amount of the G Notes, and

CUSIP No. 37245M801

13G

Page 6 of 7 Pages

\$533,333.33 principal amount of the H Notes. In addition, the Reporting Persons own \$600,000.00 principal amount of the Issuer's Warrant to purchase Senior Unsecured Convertible Note (the "E Notes"), \$266,666.67 principal amount of the Issuer's Warrant to purchase Senior Secured Convertible Promissory Note ("G Note Warrant A") and \$533,333.33 principal amount of the Issuer's Warrant to purchase Senior Secured Convertible Promissory Note ("G Note Warrant B"). The C Notes, D Notes, G Notes, H Notes, E Notes, G Note Warrant A, and G Note Warrant B (together the "Notes") can only be converted to the extent that, after such conversion, the Reporting Persons would beneficially own no more than 9.99% of the Issuer's Common Stock. As a result of these restrictions, the number of shares that may be issued on conversion of the Notes may change depending upon changes in the outstanding shares.

The beneficial ownership of each Reporting Person is as follows: (i) Fund beneficially owns 104,354,981 shares of Common Stock, representing approximately 4.95% of the class which is comprised of 19,094,893 shares of Common Stock and the remaining shares of Common Stock which the Reporting Persons may acquire upon conversion pursuant to the terms of the Notes. In the aggregate the Fund own \$295,662.43 principal amount of the C Notes, and \$178,652.00 principal amount of the D Notes, \$140,000.00 principal amount of the G Notes, \$280,000.00 principal amount of the H Notes, \$300,000.00 principal amount of the E Notes, \$140,000.00 principal amount of G Note Warrant A and \$280,000.00 principal amount of G Note Warrant B and (ii) Capital, as the investment adviser and sole general partner of the Fund and investment adviser to an account owned by a separate investment vehicle which holds shares of the Issuer's Common Stock, and Mr. Kolchinsky as the manager of Capital, each beneficially own 210,536,030 shares of Common Stock of the Issuer, representing approximately 9.99% of the class which is comprised of 38,523,920 shares of Common Stock and the remaining shares of Common Stock which the Reporting Persons may acquire upon conversion pursuant to the terms of the Notes. The percentage of Common Stock beneficially owned by each Reporting Person is based on a total of 1,935,455,665 shares of Common Stock of the Issuer outstanding per the Issuer's From 8-K as filed with the Securities and Exchange Commission on February 10, 2012 plus 172,012,110 shares of Common Stock issuable upon conversion of notes or exercise of warrants.

The Fund has the power to vote and dispose of the shares of Common Stock beneficially owned by such entity (as described above). Capital, as the investment adviser and sole general partner of the Fund and as the investment adviser to an account owned by a separate investment vehicle which holds shares of the Issuer's Common Stock, has the sole authority to vote and dispose of all of the shares of Common Stock reported in this Schedule 13G. The Manager, by virtue of his position as manager of Capital, has the sole authority to vote and dispose of all of the shares of Common Stock reported in this Schedule 13G.

It	em 5.	Ov	vners]	hip	of	Five	e P	ercent	or	Less	of	a (Class	:

Not applicable.

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

Not applicable.

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

Not applicable.

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

Not applicable.						
Notice of Dissolution of Group:						
Not applicable.						
Certification:						

By signing below I hereby 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.

CUSIP No. 37245M801

13G

Page 7 of 7 Pages

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.

DATE: FEBRUARY 14, 2012

RA CAPITAL HEALTHCARE FUND, L.P.

By: RA Capital Management, LLC

General Partner

By: /s/ Peter Kolchinsky

Peter Kolchinsky

Manager

RA CAPITAL MANAGEMENT, LLC

By: /s/ Peter Kolchinsky

Peter Kolchinsky

Manager

PETER KOLCHINSKY

/s/ Peter Kolchinsky

Exhibit 1

JOINT FILING AGREEMENT

Pursuant to Rule 13d-1(k)(1) under the Securities Exchange Act of 1934, as amended, the undersigned hereby agrees, as of February 14, 2012, that only one statement containing the information required by Schedule 13G, and each amendment thereto, need be filed with respect to the ownership by each of the undersigned of shares of Common Stock of Genta Incorporated, and such statement to which this Joint Filing Agreement is attached as Exhibit 1 is filed on behalf of each of the undersigned.

RA CAPITAL HEALTHCARE FUND, L.P.

By: RA Capital Management, LLC General Partner

By: /s/ Peter Kolchinsky Peter Kolchinsky Manager

RA CAPITAL MANAGEMENT, LLC

By: /s/ Peter Kolchinsky Peter Kolchinsky Manager

PETER KOLCHINSKY

/s/ Peter Kolchinsky