

Section 1 – Registrant’s Business and Operations

Items 1.01 Entry into a Material Definitive Agreement.

On December 31, 2008, the Registrant entered into a Convertible Note Purchase Agreement (the “Purchase Agreement”) with private investors pursuant to which the Registrant sold to the investors 12% convertible notes due June 30, 2010 in the aggregate principal amount of \$535,000 (the “Notes”). The price at which principal of the Notes will be converted into shares of Common Stock (the “Note Conversion Price”) shall be equal to the lesser of (i) the average closing price of the Common Stock on the OTC Bulletin Board for the 20 trading day period immediately preceding the date of the Closing, (ii) \$0.04, or (iii) the per share price (or conversion price) in any subsequent financing while the debt is outstanding (in each case as such amount is equitably adjusted to reflect any stock split, reverse stock split or stock dividend carried out by the Registrant). The current conversion price of \$.0291 per share was determined by the average closing price of the Registrant’s common stock for the twenty trading days immediately preceding December 31, 2008. The Notes are not secured and are non-transferable.

Pursuant to the Purchase Agreement, the Registrant has granted to the investors demand registration rights for the shares of common stock that would be issued upon conversion of the Note principal and piggyback registration rights for the shares of common stock that would be issued upon conversion of the Note interest. The Registrant will bear the expense of such registrations except for the investor’s selling expenses and any legal or accounting costs incurred by the investors for such registrations.

Section 2 – Financial Information

Item 2.03 Creation of a Direct Financial Obligation or an Obligation under an Off-Balance Sheet Arrangement of a Registrant.

As described in Item 1.01, the Registrant became obligated for the repayment of \$535,000 upon the sale of the Notes to private investors. The Notes are not guaranteed by any third party, are not secured by the Registrant and are non-transferable. The Notes will bear simple interest on the outstanding principal and all accrued but unpaid interest will be due and payable on the earlier of the maturity date (June 30, 2010) or the date on which all of the outstanding principal of the Notes have been converted into shares of the Registrant’s common stock. The Registrant may use cash, shares of its common stock, or a combination of cash and stock to repay accrued but unpaid interest. The number of shares that the Registrant may use to pay off interest will be based on a conversion rate equal to the lesser of (i) 75% of \$.0291 (which is the average closing price of the common stock on the OTC Bulletin Board for the 20 trading day period immediately preceding the December 31, 2008 closing date) or (ii) the closing market price on the trading market on which the Registrant’s common stock is then-quoted on the date the Registrant gives notice to the investors that the Registrant will be using shares of common stock to pay off the interest.

The unpaid principal and all accrued but unpaid interest on each Note will become automatically due and payable if the Registrant:

- Fails to pay the Note in full within five business days after the maturity date,
- Becomes insolvent,
- Commences any proceeding to liquidate, dissolve or sell all or substantially all of its assets,
- Has a bankruptcy proceedings commenced against it, or

- Breaches any of its covenants or agreements under the Notes or the Purchase Agreement and fails to cure such a breach within 30 days after the Company is notified or becomes aware of the breach.

Section 3 – Securities and Trading Markets

Item 3.02 Unregistered Sales of Equity Securities

As described in Items 1.01 and 2.03, On December 31, 2008, the Registrant entered into the Purchase Agreement with private investors pursuant to which the Registrant sold the Notes. In Items 1.01 and 2.03 above, the Registrant described the terms of conversion of the principal of the Notes into shares of common stock and the conversion rate used if the Registrant elects to pay Note interest with shares of its common stock.

As described in Item 1.01, the Registrant has granted to the investors registration rights with respect to the shares of the Registrant's common stock issuable upon the conversion of Note principal and issuable in payment of the Note interest.

The Registrant made the offer and sale of the Notes to the investors pursuant to an exemption from registration provided by Section 4(2) of the Securities Act of 1933, as amended (the "Securities Act"), and Rule 506 promulgated thereunder. The Registrant believes that each of the purchasers of the Note is an "accredited investor" as such term is defined in Rule 501(a) promulgated under the Securities Act.

Section 9 – Financial Statements and Exhibits

Item 9.01 Financial Statements and Exhibits

(d) Exhibits.

- 10.1 Convertible Note Purchase Agreement
- 10.2 Form of Convertible Promissory Note

SIGNATURES

Pursuant to the requirements of the Securities Exchange Act of 1934, the registrant has duly caused this report to be signed on its behalf by the undersigned hereunto duly authorized on this 6th day of January 2009.

APPLIED NEUROSOLUTIONS, INC.

By: /s/ David Ellison
Name: David Ellison
Title: Chief Financial Officer

CONVERTIBLE NOTE PURCHASE AGREEMENT

This Convertible Note Purchase Agreement (this "Agreement") is made as of December __, 2008 between Applied NeuroSolutions, Inc., a Delaware corporation (the "Company"), and each of the purchasers listed on Schedule I hereto (each a "Purchaser" and, collectively, the "Purchasers").

The Company and the Purchasers hereby agree as follows:

SECTION 1

Purchase and Sale of the Units

1.1 Authorization of Issuance and Sale of the Units. Prior to the Closing (as defined herein), the Company will have authorized the issuance and sale of 12% Convertible Promissory Notes up to an aggregate principal amount of \$2,000,000 (the "Notes"). The Notes will be in the form annexed hereto as Exhibit A.

1.2 Sale and Purchase of the Units. At the Closing, subject to the terms and conditions hereof and in reliance upon the representations, warranties and agreements contained herein, each of the Purchasers will purchase the Note(s) in the principal amount(s) set forth opposite such Purchaser's name on Schedule I annexed hereto at a purchase price set forth opposite such Purchaser's name on Schedule I annexed hereto (the "Purchase Price").

SECTION 2

Closing, Payment and Delivery

2.1 Closing. The Closing of the sale of the Notes will occur on December 31, 2008 or on such later date as the parties may mutually determine (the "Closing").

2.2 Payment and Delivery. At the Closing, (a) the Purchasers will pay to the Company by check or wire funds transfer the Purchase Price set forth opposite such Purchaser's name on Schedule I annexed hereto, and (b) the Company will deliver to the Purchasers the Note(s) in the principal amount(s) set forth opposite each such Purchasers name on Schedule I annexed hereto registered in such name or names as each such Purchaser may reasonably designate.

SECTION 3

Representations and Warranties of the Company

The Company hereby represents and warrants to the Purchasers that:

3.1 Corporate Power, Qualification and Standing. The Company is validly existing and in good standing under the laws of the State of Delaware and is qualified to transact business in each jurisdiction in which its ownership of property or conduct of activities requires such qualification. The Company has all requisite corporate power and authority to enter into this Agreement, to sell the Notes, to execute and deliver the Notes and to carry out and perform its other obligations under this Agreement and under the Notes.

3.2 Authorization; No Conflict; Enforceability. Execution and delivery of this Agreement, the Notes, the issuance and sale of the Notes and the issuance of the Common Stock upon the conversion of the Notes and/or the payment of interest on the Notes (collectively, the “Note Shares”) have been duly authorized by all necessary corporation action of the Company. Performance by the Company of its obligations under this Agreement and the Notes will not conflict with or violate the charter documents or bylaws of the Company, or conflict with or violate, in any material respect, (i) any indenture, loan agreement, lease, mortgage or other agreement binding on the Company, (ii) any order of a court or administrative agency binding on the Company, or (iii) any applicable law or governmental regulation, the effect of any of which would have a material adverse effect on the Company or materially impair or restrict the Company's power to perform its obligations as contemplated hereby. This Agreement and the Notes are valid and binding obligations of the Company, enforceable against the Company in accordance with their terms, except as enforcement thereof may be limited by bankruptcy, insolvency, fraudulent conveyance and transfer, reorganization or other similar laws affecting the enforcement of creditors’ rights generally and by general equitable principles (regardless of whether the issue of enforceability is considered in a proceeding in equity or at law).

3.3 Valid Issuance. Upon the due conversion of the Notes or the issuance by the Company of shares of Common Stock in payment of interest on the Notes, the Note Shares issuable thereupon will be validly issued, fully paid and non-assessable free and clear of all encumbrances and restrictions, except for restrictions on transfer set forth in this Agreement or imposed by applicable securities laws. On the maturity date of the Notes, the Company shall have a sufficient number of authorized shares of Common Stock reserved for issuance upon the conversion of the principal of the Notes by the Purchasers. Prior to the maturity date of the Notes, the Company shall take such steps as are reasonably necessary to provide for a sufficient number of authorized shares of Common Stock available for issuance upon the conversion of the principal of the Notes by the Purchasers.

3.4 Delivery of SEC Filings; Business. The Company has made available to the Purchasers through the EDGAR system, true and complete copies of the Company’s most recent Annual Report on Form 10-KSB for the fiscal year ended December 31, 2007 (the “10-KSB”), and all other reports filed by the Company pursuant to the 1934 Act since the filing of the 10-KSB and prior to the date hereof (collectively, the “SEC Filings”).

3.5 Brokers and Finders. No person will have, as a result of the transactions contemplated by this Agreement, any valid right, interest or claim against or upon the Company, or any Purchaser for any commission, fee or other compensation pursuant to any agreement, arrangement or understanding entered into by or on behalf of the Company.

3.6 Private Placement. The offer and sale of the Notes to the Purchasers as contemplated hereby are exempt from the registration requirements of the Securities Act of 1933 (the "Securities Act").

SECTION 4

Representations and Warranties of the Purchasers

Each Purchaser, severally and not jointly, represents and warrants to the Company that:

4.1 Purchase Entirely for Own Account. The Note(s) to be received by the Purchaser hereunder will be acquired for the Purchaser's own account, not as nominee or agent, and not with a view to the resale or distribution of any part thereof in violation of the Securities Act, and the Purchaser has no present intention of selling, granting any participation in, or otherwise distributing the same in violation of the Securities Act. The Purchaser is not a registered broker dealer or an entity engaged in the business of being a broker or dealer.

4.2 Investment Experience. The Purchaser acknowledges that it can bear the economic risk and complete loss of its investment in the Note(s) and has such knowledge and experience in financial or business matters that it is capable of evaluating the merits and risks of the investment contemplated hereby.

4.3 Disclosure of Information. Each Purchaser has had an opportunity to receive all additional information related to the Company requested by it and to ask questions of and receive answers from the Company regarding the Company, its business and the terms and conditions of the offering of the Notes. The Purchaser acknowledges that it has access to, and an opportunity to inspect, the SEC Filings.

4.4 Accredited Purchaser. The Purchaser is an accredited Purchaser as defined in Rule 501(a) of Regulation D, as amended, under the Securities Act.

4.5 Brokers and Finders. No Person will have, as a result of the transactions contemplated by this Agreement, any valid right, interest or claim against or upon the Company or the Purchaser for any commission, fee or other compensation pursuant to any agreement, arrangement or understanding entered into by or on behalf of the Purchaser.

SECTION 5

Registration Rights; Legend; Restrictions on Transfer

5.1 Registration Rights. The Purchasers shall have the demand registration rights set forth on Schedule II annexed hereto with respect to the shares of Common Stock issued upon any conversion of principal of the Notes. The Purchasers shall have piggyback registration

rights, but not any demand registration rights, set forth on Schedule III annexed hereto with respect to Note Shares issued by the Company in payment of interest on the Notes pursuant to Section 2 thereof (the “Interest Shares”).

5.2 Legend. Each Note and each certificate representing Note Shares shall be stamped or otherwise imprinted with a legend substantially in the following form (in addition to any legend required under any applicable state securities laws):

THESE SECURITIES HAVE NOT BEEN REGISTERED UNDER THE SECURITIES ACT OF 1933 OR ANY STATE SECURITIES LAWS. THEY MAY NOT BE SOLD OR OFFERED FOR SALE IN THE ABSENCE OF AN EFFECTIVE REGISTRATION STATEMENT AS TO THE SECURITIES UNDER SAID ACT AND ANY APPLICABLE STATE SECURITIES LAW OR AN OPINION OF COUNSEL SATISFACTORY TO THE COMPANY THAT SUCH REGISTRATION IS NOT REQUIRED.

5.3 Restriction on Transfer. Notwithstanding anything to the contrary set forth in this Agreement, the Notes and the Note Shares are “restricted securities” under the Securities Act inasmuch as they are being acquired from the Company in a transaction not involving a public offering and that under such laws and applicable regulations such securities may not be resold without registration under the Securities Act or pursuant to an exemption from such registration.

SECTION 6

Miscellaneous

6.1 Governing Law; Consent to Jurisdiction; Waiver of Jury Trial. This Agreement shall be governed by, and construed in accordance with, the internal laws of the State of New York without regard to the choice of law principles thereof. Each of the parties hereto irrevocably submits to the exclusive jurisdiction of the courts of the State of New York located in New York County and the United States District Court for the Southern District of New York for the purpose of any suit, action, proceeding or judgment relating to or arising out of this Agreement and the transactions contemplated hereby. Service of process in connection with any such suit, action or proceeding may be served on each party hereto anywhere in the world by the same methods as are specified for the giving of notices under this Agreement. Each of the parties hereto irrevocably consents to the jurisdiction of any such court in any such suit, action or proceeding and to the laying of venue in such court. Each party hereto irrevocably waives any objection to the laying of venue of any such suit, action or proceeding brought in such courts and irrevocably waives any claim that any such suit, action or proceeding brought in any such court has been brought in an inconvenient forum. **EACH OF THE PARTIES HERETO WAIVES ANY RIGHT TO REQUEST A TRIAL BY JURY IN ANY LITIGATION WITH RESPECT TO THIS AGREEMENT AND REPRESENTS THAT COUNSEL HAS BEEN CONSULTED SPECIFICALLY AS TO THIS WAIVER.**

6.2 Successors and Assigns. Except as otherwise expressly provided herein, this Agreement shall inure to the benefit of and be binding upon the successors and permitted assigns of the parties. No Purchaser shall transfer this Agreement without the prior written consent of the Company.

6.3 Entire Agreement; Amendment. This Agreement (including any schedules or exhibits annexed hereto) and the other documents delivered pursuant hereto constitute the full and entire understanding and agreement between the parties with regard to the subjects hereof and thereof. Neither this Agreement nor any term hereof may be amended, waived, discharged or terminated except by a written instrument signed by the Company and by the Purchasers holding Notes with a majority of the outstanding principal of all Notes.

6.4 Notices. All notices and other communications required or permitted hereunder shall be mailed by either an express mail carrier, first-class mail, postage prepaid, or facsimile, or delivered either by hand or by messenger, addressed (a) if to the Purchasers, as indicated on Schedule I hereto, or at such other address as the Purchasers shall have furnished to the Company in writing, or (b) if to the Company, at its address set forth on the signature page hereto (with copy to: Eilenberg Krause & Paul LLP, 11 East 44th Street, 19th Floor, New York, NY 10017, Attn.: Adam D. Eilenberg, Esq.) or at such other address as the Company shall have furnished to the Purchasers and each such other holder in writing. All such notices or communications shall be deemed given when actually delivered by hand, messenger, express mail carrier or facsimile or, if mailed, three days after deposit in the U.S. mail.

6.5 Delays or Omission. No delay or omission to exercise any right, power or remedy accruing to any party to this Agreement, upon any breach or default of another party under this Agreement, shall impair any such right, power or remedy of such party nor shall it be construed to be a waiver of any such breach or default, or an acquiescence therein, or of or in any similar breach or default thereafter occurring; nor shall any waiver of any single breach or default be deemed a waiver of any other breach or default theretofore or thereafter occurring. All remedies, either under this Agreement or by law or otherwise afforded to any party, shall be cumulative and not alternative.

6.6 Severability. In case any provision of the Agreement shall be invalid, illegal or unenforceable, the validity, legality and enforceability of the remaining provisions shall not in any way be affected or impaired thereby.

6.7 Expenses. The parties hereto shall pay their own costs and expenses in connection herewith, including, but not limited to, accountants' and attorneys' fees and disbursements, in connection with any amendment, modification or waiver of this Agreement and the Notes.

6.8 Counterparts. This Agreement may be executed in any number of counterparts, each of which shall be an original, but all of which together shall constitute one instrument.

[Signatures appear on next page]

IN WITNESS WHEREOF, the parties have caused this Note Purchase Agreement to be executed and delivered by their duly authorized officers or partners, as the case may be, as of the day and year first above written.

APPLIED NEUROSOLUTIONS, INC.

By: _____

Title: _____

Address: 50 Lakeview Parkway, Suite 111
Vernon Hills, IL 60061

PURCHASER

Signature

Print Name

Street Address

City, State, Zip Code

Date

Principal Amount of Note

Purchase Price

SCHEDULE II – DEMAND REGISTRATION RIGHTS

(a) Demand Registration. Upon delivery to the Company of a written demand from the Purchaser(s) holding the Notes with a majority of the outstanding principal thereof (“**Demand Notice**”), the Company shall prepare and file with the Securities and Exchange Commission (the “**Commission**”) within 60 days after the delivery of such Demand Notice to the Company (the “**Filing Deadline**”) a registration statement on Form S-1 (the “**Registration Statement**”), covering the resale of all or such portion of the shares of Common Stock issued upon any conversion of principal of the Notes as specified in the Demand Notice (the “**Registrable Securities**”) as permitted by any publicly available written or oral guidance, comments, requirements or requests of the Commission’s staff and (ii) the Securities Act (the “**SEC Guidance**”) (provided that the Company shall use diligent efforts to advocate with the Commission for the registration of all of the Registrable Securities in accordance with the SEC Guidance, including without limitation, the Manual of Publicly Available Telephone Interpretations D.29) that are not then registered on an effective Registration Statement for an offering to be made on a continuous basis pursuant to Rule 415. Such Registration Statement also shall cover, to the extent allowable under the Securities Act and the rules promulgated thereunder (including Rule 416), such indeterminate number of additional shares of Common Stock resulting from stock splits, stock dividends or similar transactions with respect to the Registrable Securities. The Company shall include in a Registration Statement only the Registrable Securities. If the initial Registration Statement covering the Registrable Securities is not filed with the SEC on or prior to the initial Filing Deadline, the Company will make payments to the Purchasers, as liquidated damages and not as a penalty, in an amount equal to 1.0% of the aggregate principal amount of the Notes then outstanding (paid on a pro-rata basis to each Purchaser based on the amount of principal of such Purchaser’s Note(s) then outstanding) for each 30-day period or pro rata for any portion thereof following the date by which such Registration Statement should have been filed for which no Registration Statement is filed with respect to the Registrable Securities. Such payments shall constitute the Purchasers’ exclusive remedy for such events; provided, however, that the Purchasers shall retain the right to pursue any equitable remedies available to it with respect to such events. Such payments shall be made to the Purchaser in cash. The maximum aggregate liquidated damages payable to the Purchasers under these registration rights provisions (including paragraphs (a) and (c) hereof) shall be 5.0% of the aggregate purchase price paid by the Purchasers for the Notes pursuant to the Purchase Agreement. Notwithstanding any other provision of this Agreement, if any SEC Guidance sets forth a limitation on the number of Registrable Securities permitted to be registered in the Registration Statement (and notwithstanding that the Company used diligent efforts to advocate with the Commission for the registration of all or a greater number of Registrable Securities), unless otherwise directed in writing by the Purchasers as to its Registrable Securities, the number of Registrable Securities to be registered on such Registration Statement will be reduced pro rata among the Purchasers based on the principal amount of their respective Notes. In the event of such reduction, the Company shall file one or more Registration Statements covering the remaining Registrable Securities to the extent permitted by SEC Guidance (and such additional Registration Statement(s) shall be filed within a reasonable time after the earliest date permitted by SEC Guidance).

(b) Expenses. The Company will pay all expenses associated with the registration, including filing and printing fees, the Company’s counsel and accounting fees and expenses,

costs associated with clearing the Registrable Securities for sale under applicable state securities laws, listing fees, but excluding fees and expenses of counsel(s) to the Purchasers, discounts, commissions, fees of underwriters, selling brokers, dealer managers or similar securities industry professionals with respect to the Registrable Securities being sold.

(c) Effectiveness.

(i) The Company shall use reasonable best efforts to have the initial Registration Statement required to be filed hereunder declared effective by the 120th calendar day after the initial Filing Deadline (150th calendar day if the SEC reviews the Registration Statement) and have any additional Registration Statements which may be required pursuant to paragraph (a) above declared effective by the 120th calendar day following the date on which such additional Registration Statement is required to be filed hereunder (each an “**Effectiveness Deadline**”). The Company shall telephonically request effectiveness of a Registration Statement as of 5:00 p.m. New York City time on a business day. The Company shall immediately notify the Investor via facsimile or by e-mail delivery of the effectiveness of a Registration Statement on the same business day that the Company telephonically confirms effectiveness of a Registration Statement with the Commission, which shall be the date requested for effectiveness of such Registration Statement (“**Effective Date**”). The Company shall, by 9:30 a.m. New York City time on the second business day after the Effective Date, file a final Prospectus with the Commission as required by Rule 424. If (A) a Registration Statement covering the Registrable Securities is not declared effective by the SEC by the applicable Effectiveness Deadline, or (B) after a Registration Statement has been declared effective by the Commission, sales cannot be made pursuant to such Registration Statement for any reason (including without limitation by reason of a stop order, or the Company’s failure to update the Registration Statement), but excluding (x) the inability of any Purchaser to sell the Registrable Securities covered thereby due to market conditions, (y) an Allowed Delay (as defined below) and (z) the 45 day period following the date on which the Company files its annual report on Form 10-K and during which the Company’s post effective amendment to such Registration Statement has not yet been declared effective, then the Company will make payments to the Purchasers, as liquidated damages and not as a penalty, in an amount equal to 1.0%, of the aggregate principal amount of the Notes then outstanding (paid on a pro-rata basis to each Purchaser based on the amount of principal of such Purchaser’s Note(s) then outstanding) for each 30- day period or pro rata for any portion thereof following the date by which such Registration Statement should have been effective (the “**Blackout Period**”). Such payments shall constitute the Purchasers’ exclusive remedy for such events; provided, however, that the Purchasers shall retain the right to pursue any equitable remedies available to it with respect to such events. The amounts payable as liquidated damages pursuant to this paragraph shall be paid monthly within three (3) Business Days of the last day of each month following the commencement of the Blackout Period until the termination of the Blackout Period. Such payments shall be made to the Investor in cash. The maximum aggregate liquidated damages payable to the Purchasers under these registration rights provisions (including paragraphs (a) and (c) hereof) shall be 5.0% of the aggregate purchase price paid by the Purchasers for the Notes pursuant to the Purchase Agreement.

(ii) Not more than twenty (20) consecutive days or for a total of not more than forty-five (45) days in any twelve (12) month period, the Company may delay the

disclosure of material non-public information concerning the Company, by suspending the use of any prospectus included in any registration contemplated by these registration rights provisions containing such information, the disclosure of which at the time is not, in the good faith opinion of the Company, in the best interests of the Company (an “**Allowed Delay**”); provided, that the Company shall promptly (a) notify the Purchasers in writing of the existence of (but in no event, without the prior written consent of any such Purchaser, shall the Company disclose to the Investor any of the facts or circumstances regarding) material non-public information giving rise to an Allowed Delay, (b) advise the Purchasers in writing to cease all sales under the Registration Statement until the end of the Allowed Delay and (c) use best efforts to terminate an Allowed Delay as promptly as practicable.

(d) Company Obligations. The Company will use reasonable best efforts to effect the registration of the Registrable Securities in accordance with the terms hereof, and pursuant thereto the Company will, as expeditiously as possible:

(i) use reasonable best efforts to cause such Registration Statement to become effective and to remain continuously effective for a period that will terminate upon the earliest of (i) the first anniversary of the Maturity Date (as defined in the Notes), (ii) the date on which all Registrable Securities covered by such Registration Statement as amended from time to time, have been sold, and (iii) the date on which all Registrable Securities covered by such Registration Statement may be sold pursuant to Rule 144(b)(1)(i) (the “Effectiveness Period”) and advise the Purchasers in writing when the Effectiveness Period has expired;

(ii) prepare and file with the SEC such amendments and post-effective amendments to a Registration Statement and the prospectus as may be necessary to keep such Registration Statement effective for the applicable Effectiveness Period and to comply with the provisions of the Securities Act and the Exchange Act with respect to the distribution of all of the Registrable Securities covered thereby;

(iii) use reasonable best efforts to (i) prevent the issuance of any stop order or other suspension of effectiveness and, (ii) if such order is issued, obtain the withdrawal of any such order at the earliest possible moment;

(iv) otherwise use reasonable best efforts to comply with all applicable rules and regulations of the SEC under the Securities Act and the 1934 Act, take such other actions as may be reasonably necessary to facilitate the registration of the Registrable Securities hereunder;

(e) Obligations of the Purchasers.

(i) The Purchasers shall furnish in writing to the Company such information regarding itself, the Registrable Securities held by it and the intended method of disposition of the Registrable Securities held by it, as shall be reasonably required to effect the registration of such Registrable Securities and shall execute such documents in connection with such registration as the Company may reasonably request.

(ii) The Purchasers, by their respective acceptance of the Registrable Securities, agrees to cooperate with the Company as reasonably requested by the Company in connection with the preparation and filing of any Registration Statement hereunder, unless any such Purchaser has notified the Company in writing of its election to exclude all of its Registrable Securities from such Registration Statement.

(iii) The Purchasers agree that, upon receipt of any notice from the Company of either (i) the commencement of an Allowed Delay or notice from the Company that a Registration Statement contains an untrue statement of a material fact or omits to state any material fact required to be stated therein or necessary to make the statements therein not misleading in light of the circumstances then existing, the Purchasers will immediately discontinue disposition of Registrable Securities pursuant to any Registration Statement covering such Registrable Securities, until the Purchasers' receipt of the copies of the supplemented or amended prospectus filed with the Commission and until any related post-effective amendment is declared effective.

SCHEDULE III – PIGGYBACK REGISTRATION RIGHTS

Piggyback Registration.

(a) If (and on each occasion that) the Company proposes to register any of its securities under the Securities Act, either for the Company's own account or for the account of any of its security holders (each such registration not withdrawn or abandoned prior to the effective date thereof, a "Piggyback Registration"), the Company will give written notice to each of the Purchasers at least ten (10) business days prior to the anticipated filing date of such Piggyback Registration. Notwithstanding the foregoing, the Company will not be obligated to give notice to Purchasers as to or to include any Interest Shares in any registration (i) on Form S-8 or similar limited-purpose form of registration statement effected solely to implement an employee benefit plan, (ii) on Form S-4 or similar limited-purpose form of registration statement effected solely to implement an acquisition or (iii) any registration for which the Company is not permitted to include the securities of other persons (such as the Interest Shares) , whether pursuant to contract, law or otherwise.

(b) Subject to the provisions contained in paragraphs (c) and (d) of this Schedule III and in the last sentence of this paragraph (b): (A) the Company will be obligated to include in each Piggyback Registration all Interest Shares with respect to which the Company receives, within 10 business days after the date on which the Company gives written notice of such Piggyback Registration to the Purchasers pursuant to Section (a) above, the written requests of such Purchasers for inclusion in such Piggyback Registration, and (B) the Company will use its reasonable efforts to effect promptly the registration of all such Interest Shares. The Company and its underwriters will be permitted, on any registration initiated by the Company, to terminate or withdraw such registration or to reduce the total number of shares proposed to be registered thereunder.

(c) If a Piggyback Registration is an underwritten registration, and the managing underwriters thereof give written advice to the Company that the total amount of securities, including the Interest Shares and other securities to be registered pursuant to the Piggyback Registration exceeds the amount of securities that the underwriters reasonably believe compatible with the success of the offering (the "Underwriters' Maximum Number"), then:

(i) If such registration was initiated by the Company, (x) the Company will be entitled to include in such registration that number of securities that the Company proposes to offer and sell for its own account in such registration and which does not exceed the Underwriters' Maximum Number and, to the extent such securities are less than the Underwriters' Maximum Number (y) the Company will be obligated to include in such registration that number of Interest Shares of the Company that are requested by the Purchasers and by other persons and which does not exceed the difference between the Underwriters' Maximum Number and the number of securities of the Company that the Company is entitled under clause (x) above to include in such registration, and such number of securities of the

Company will be allocated *pro rata* among the Purchasers and other persons in proportion to the number of securities of the Company held by each such Purchaser or other person.

(ii) If such registration was initiated by a person other than the Company or a Purchaser, (w) the Company will be obligated to include in such registration that number of securities that are requested by the person(s) initiating such registration and which is not more than the Underwriters' Maximum Number, and such number of securities will be allocated *pro rata* among such other person(s) in proportion to the number of securities of the Company held by each such other person; (x) the Company will be entitled to include in such registration that number of securities that the Company proposes to offer and sell for its own account in such registration and which does not exceed the difference between the Underwriters' Maximum Number and the number of securities that the Company is required under clause (w) above to include in such registration; (y) and thereafter the Company will be obligated to include in such registration that number of Interest Shares that are requested by the Purchasers requesting registration and which is not more than the Underwriters' Maximum Number, and such number of securities will be allocated *pro rata* among the Purchasers requesting registration in proportion to the number of Interest Shares held by each such Purchaser; and (z) if the Underwriters' Maximum Number exceeds the sum of the number of securities that the Company is obligated to include in such registration for the account of other persons pursuant to clause (w) above and the number of securities that the Company proposes to offer and sell for its own account in such registration, then the Company may include in such registration that number of other securities that persons referred to in clause (w) above have requested be included in such registration and which is not greater than such excess.

For purposes of this Section (c), the numbers of securities of the Company held by any Purchaser or other person will be calculated on a fully diluted basis assuming the full exercise, conversion, or exchange of all outstanding securities that are exercisable, convertible or exchangeable for shares of the Company's Common Stock.

(d) In any Piggyback Registration, the Company will select, in its sole discretion, the investment bankers and managing underwriters in such registration.

(e) Each Purchaser, if the Company or the managing underwriters so request of such Purchasers in connection with such registration, will not, without the prior written consent of the Company or such underwriters, effect any sale or other distribution of any equity securities of the Company, including any sale pursuant to Rule 144, during the seven days prior to, and during the 180-day period, commencing on the effective date of such underwritten registration, except pursuant to such underwritten registration.

EXHIBIT 10.2

THESE SECURITIES HAVE NOT BEEN REGISTERED UNDER THE SECURITIES ACT OF 1933 OR ANY STATE SECURITIES LAWS. THEY MAY NOT BE SOLD OR OFFERED FOR SALE IN THE ABSENCE OF AN EFFECTIVE REGISTRATION STATEMENT AS TO THE SECURITIES UNDER SAID ACT AND ANY APPLICABLE STATE SECURITIES LAW OR AN OPINION OF COUNSEL SATISFACTORY TO THE COMPANY THAT SUCH REGISTRATION IS NOT REQUIRED.

APPLIED NEUROSOLUTIONS, INC.

December ___, 2008

Vernon Hills, Illinois

No. CPN _____

\$ _____

12% CONVERTIBLE PROMISSORY NOTE

APPLIED NEUROSOLUTIONS, INC., a Delaware corporation with an address at 50 Lakeview Parkway, Suite 111, Vernon Hills, Illinois 60061 (the "Maker"), for value received, hereby promises to pay to _____ or his/her/its registered assigns (the "Holder") on June ___, 2010 (the Maturity Date") the principal sum of \$_____ and interest on the outstanding principal sum hereof (computed on the basis of a 360 day year of twelve months) at the rate of 12% per annum from the date hereof until the earlier of (a) the Maturity Date or (b) the date on which this Promissory Note has been converted in full into shares of the Maker's common stock (the "Common Stock"). The outstanding principal and accrued but unpaid interest thereon shall be payable on the Maturity Date in such coin or currency of the United States of America as at the time of payment shall be legal tender for the payment of public and private debts to the Holder at the office of the Maker as hereinafter set forth. At the option of the Maker, interest on this Promissory Note may be paid in shares of the Common Stock in accordance with Section 2 hereof.

This Promissory Note is one of a series of promissory notes of the Maker in the aggregate principal amount of up to \$2,000,000 issued in connection with a private placement as described in the Convertible Note Purchase Agreement dated as of the date hereof to which the Maker is a party (the "Subscription Agreement"). This Promissory Note shall rank pari passu with all of the other Promissory Notes issued pursuant to the Subscription Agreement.

1. Transfers of Note to Comply with the Securities Act

The Holder agrees that this Promissory Note may not be sold, transferred, pledged, hypothecated or otherwise disposed of except as follows: (1) to a person to whom this Promissory Note may legally be transferred without registration and without delivery of a current prospectus under the Securities Act of 1933, as amended (the "Securities Act") with respect thereto and then only against receipt of an agreement of such person to comply with the provisions of this Section 1 with respect to any resale or other disposition of this Promissory Note; or (2) to any person upon delivery of a prospectus

then meeting the requirements of the Securities Act relating to such securities and the offering thereof for such sale or disposition and thereafter to all successive assignees.

2. Payment of Interest and Prepayment

(a) Subject to the terms hereof, the Maker has the sole option to determine whether to satisfy payment of the accrued but unpaid interest on this Promissory Note in full on the Maturity Date or the date on which this Promissory Note is converted in full into shares of Common Stock (each an "Interest Repayment Date") either in cash or in shares of Common Stock, or a combination of both. The Maker shall deliver to the Holder a written notice, in the form of Exhibit A attached hereto, electing to pay such interest in full on such Interest Repayment Date in either cash or Common Stock, or a combination of both ("Interest Repayment Election Notice"). The Interest Repayment Election Notice shall be delivered to the Holder at least two (2) business days, but not more than six (6) business days, prior to the Interest Repayment Date (the "Notice Date"). If the Interest Repayment Election Notice is not delivered within the prescribed period set forth in the preceding sentence, then the repayment of interest on the Repayment Interest Date shall be made in cash. The Maker shall issue and deliver to the Holder no later than four (4) business days from the Notice Date that number of shares of Common Stock specified in the Interest Repayment Election Notice. If the Maker elects to repay all or a portion of the accrued but unpaid interest on the Interest Repayment Date with shares of Common Stock, the number of such shares to be issued for such interest repayment shall be the number determined by dividing (x) the dollar amount of interest to be paid in shares of Common Stock, by (y) the Interest Conversion Price (as defined below) as of Notice Date.

(b) **Conversion Price for Accrued but Unpaid Interest** - The conversion price for the accrued but unpaid interest on this Promissory Note (the "Interest Conversion Price") shall be equal to the lesser of (i) 75% of the average closing price of the Common Stock on the OTC Bulletin Board for the 20 trading day period immediately preceding the date of the closing date under the Subscription Agreement (the "Closing") or (ii) the closing market price on the Principal Market (as hereinafter defined) on which the Common Stock is then-quoted on the Notice Date (in each case as such amount is equitably adjusted to reflect any stock split, reverse stock split or stock dividend carried out by the Maker). "Principal Market" shall mean the Pink Sheets, the OTC Bulletin Board, the Nasdaq Global Market, the Nasdaq Global Select Market, the American Stock Exchange or the New York Stock Exchange on which the Maker's Common Stock is quoted at the applicable time.

(c) The shares of Common Stock issued by the Maker to repay accrued but unpaid interest on this Promissory Note, when issued, will not have been registered under the Securities Act or any state securities laws and such shares may not be sold or offered for sale in the absence of an effective registration statement as to such shares under the Securities Act and any applicable state securities law or an opinion of counsel satisfactory to the Maker that such registration is not required. The Company has granted to the Holder of this Promissory Note certain piggyback registration rights with respect to the shares of Common Stock issued by the Maker to repay accrued but unpaid interest on this Promissory Notes, which rights are set forth on Schedule III to the Purchase Agreement.

(d) The Maker may not prepay all or any part of the principal sum from time to time without Holder's consent.

3. Conversion of Promissory Note

(a) Subject to the provisions set forth herein, including, but not limited to, the restrictions on conversion pursuant to Section 3(h) below, the Holder shall have the right, but not the obligation, from and after the date hereof, and then at any time until this Promissory Note is fully paid, to convert the principal portion of this Promissory Note into fully paid and nonassessable shares of Common Stock at the Note Conversion Price (as herein defined). Upon delivery to the Maker of a fully completed and executed Notice of Conversion, in the form attached hereto as Exhibit B, in accordance with Section 3(b) below (the date of giving such notice of conversion being a "Note Conversion Date"), the Maker shall issue and deliver to the Holder no later than four (4) business days from the Conversion Date that number of shares of Common Stock for the portion of principal of this Promissory Note being converted in accordance with this Section 3. The number of shares of Common Stock to be issued upon each conversion of principal of this Promissory Note shall be determined by dividing that portion of the principal of this Promissory Note to be converted by the Note Conversion Price as of the Note Conversion Date. The Maker's delivery of the Notice of Conversion shall be an irrevocable election to convert principal of this Promissory Note in accordance with such Notice of Conversion, subject to the limitations set forth in Section 3(h) below.

(b) The Holder shall give notice of its decision to exercise its right to convert principal of this Promissory Note, in whole or in part, by telecopying or otherwise delivering an executed and completed Notice of Conversion to the Maker at its address set forth in the Subscription Agreement. The Holders will be required to surrender this Promissory Note with the Notice of Conversion. Unless the Maker delivers a notice to the Holder pursuant to Section 3(h) hereof, the Maker will cause the transfer agent to issue and transmit to the Holder within four (4) business days of the Note Conversion Date a certificate representing the shares of Common Stock being issued pursuant to the Notice of Conversion and the Maker shall promptly deliver to the Holder a new Promissory Note representing the balance of the principal not converted into Common Stock.

(c) **Conversion Price for Principal** - The price at which principal of this Promissory Note will be converted into shares of Common Stock (the "Note Conversion Price") shall be equal to the lesser of (i) the average closing price of the Common Stock on the Principal Market for the 20 trading day period immediately preceding the date of the Closing, (ii) \$0.04, and (iii) the per share price (or conversion price) in any subsequent financing while the debt is outstanding (in each case as such amount is equitably adjusted to reflect any stock split, reverse stock split or stock dividend carried out by the Maker).

(d) If the bid price for the Maker's Common Stock is equal to at least 20 times the closing price on the Principal Market on the date of the Closing for at least 20 consecutive trading days and the average daily trading volume of the Common Stock on the Principal Market during such 20 day period is greater than one million shares (the "Market Trigger"), the Maker will have the option, but not the obligation, to convert the principal portion of this Promissory Note, in whole or in part, into fully paid and nonassessable shares of Common Stock at the Note Conversion Price (subject to the limitations of Section 3(h) hereof). The Maker may exercise its right to convert the principal of this Promissory Note into shares of Common Stock as a result of the Market Trigger by delivering a written notice to the Holder, which notice shall set forth the amount of principal being converted, the Note Conversion Price, the date on which the conversion of this Promissory Note will occur and the number shares of Common Stock to be delivered to the Holder of this Promissory Note (the "Company Conversion Notice"). The Company Conversion Notice shall be delivered to the Holder at least four (4) business days prior to the Note Conversion Date set forth in such notice (and the date specified in such notice of conversion being a "Company Conversion Date"). Upon receipt of the Company Conversion Notice, the Holder shall

promptly deliver to the Maker this Promissory Note whereupon the Maker will cause its transfer agent to issue and transmit to the Holder a certificate representing the shares of Common Stock being issued pursuant to the Company Conversion Notice and the Maker shall promptly deliver to the Holder a new Promissory Note representing the balance of the principal not being converted, if any. The number of shares of Common Stock to be issued upon each conversion of principal of this Promissory Note shall be determined by dividing the (ii) portion of the principal of this Promissory Note to be converted by (ii) Note Conversion Price as of the Company Conversion Date

(e) If the Maker enters into an agreement to consolidate with or merge into or sell or convey all or substantially all its assets to any other entity or individual (“Sale of the Business”) and prior to the closing for such Sale of the Business the Holder delivers a Notice of Conversion to the Maker, then the Maker shall convert the outstanding principal of this Promissory Note in accordance with Section 3 hereof (subject to the limitations of Section 3(h) hereof). If the Maker is unable to issue the required number of shares of Common Stock with respect to such Notice of Conversion because of insufficient number of authorized shares of Common Stock (the “Unissued Conversion Shares”), then after the closing of the Sale of the Business the Maker shall redeem the unconverted principal of this Promissory Note at Redemption Amount (as defined below). The Redemption Amount shall be paid in a lump sum amount as soon as practicable after the closing of the Sale of the Business and such Redemption Amount shall bear interest (commencing on the date of the closing of the Sale of the Business) at the rate of 12% per annum until paid in full. The Redemption Amount shall be equal to the higher of (i) the product of (A) the number of Unissued Conversion Shares multiplied by (B) the amount equal to difference between the applicable Note Conversion Price and the price per share received by the holders of the Common Stock from the Sale of the Business, and (ii) the unconverted principal of this Promissory Note multiplied by a redemption factor of: (X) 1.2 if the Sale of the Business closes within 180 days of the date of this Promissory Note, (Y) 1.4 if the Sale of the Business closes between the 181st day and the first anniversary of this Promissory Note or (Z) 1.6 if the Sale of the Business closes after the first anniversary of the date of this Promissory Note.

(f) In the event of any partial conversions of outstanding principal amount under this Promissory Note pursuant to this Section 3, such conversions shall reduce the amount of principal upon which interest shall accrue hereunder.

(g) The shares of Common Stock issued upon any conversion of the principal of this Promissory Note, when issued, will not have been registered under the Securities Act or any state securities laws and such shares may not be sold or offered for sale in the absence of an effective registration statement as to such shares under the Securities Act and any applicable state securities law or an opinion of counsel satisfactory to the Maker that such registration is not required. The Company has granted to the Holder of this Promissory Note certain registration rights with respect to the shares of Common Stock issued upon any conversion of the principal of this Promissory Note, which rights are set forth on Schedule II to the Purchase Agreement.

(h) Notwithstanding any other provision herein, this Note may not be converted by the Holder hereof if, as of a Note Conversion Date, the Maker does not have sufficient number of shares of Common Stock available for issuance upon conversion of this Note (as requested in such Notice of Conversion). Upon the receipt of a Notice of Conversion from the Holder, the Maker shall promptly notify the Holder if the Maker does not have enough authorized shares to issue pursuant to such Notice of Conversion and such Notice of Conversion shall become null and void and of no further force and effect. A notice of insufficient authorized shares from the Maker shall not prohibit the Holder from resubmitting a new Notice of Conversion pursuant to Section 3 hereof with a lower amount of principal of this Promissory Note to be converted into shares of Common Stock. The Maker may convert this Note

pursuant to Section 3(d) into as many shares of Common Stock as are available immediately prior to the delivery of a Company Conversion Notice.

4. Events of Default and Remedies

The entire unpaid principal sum and all accrued interest of this Promissory Note shall automatically become immediately due and payable, without notice or demand, upon the occurrence of any one or more of the following events of default ("Events of Default"):

- (a) The Maker shall fail to make a cash payment of principal or interest hereunder or under any other Promissory Note, for a period of five business days from the date due;
- (b) The Maker shall be unable, or admit in writing its inability, to pay its debts or shall not pay its debts generally as they come due, or shall make any assignment for the benefit of creditors;
- (c) The Maker shall take action to liquidate, wind up or dissolve or shall sell all or substantially all of its assets except in connection with a Sale of the Business;
- (d) The Maker shall commence, or there shall be commenced against the Maker, any case, proceeding or other action seeking to have an order for relief entered with respect to the Maker or to adjudicate the Maker as a bankrupt or insolvent; or
- (e) Maker shall fail to comply with any of its covenants or agreements hereunder or the Subscription Agreement or any other agreement or document, certificate or instrument relating thereto except where such failure to comply is a result of the action or inaction of the Holder, and such breach shall not be cured within 30 days after notification of such breach or the CFO of the Maker (or similar officer) having obtained actual knowledge thereof.

5. Registration

This Promissory Note is registered on the books of the Maker as to both principal and interest and can only be transferred on the books of the Maker. Prior to due presentment for registration of transfer, the Maker may treat the person in whose name this Promissory Note is registered as the absolute owner of this Promissory Note for the purpose of receiving payment of principal and interest on this Promissory Note and for all other purposes.

6. Miscellaneous

No delay on the part of the Holder in exercising any option, power or right shall constitute a waiver thereof.

No recourse under or upon any obligation, covenant or agreement of this Promissory Note, or for any claim based thereon or in respect thereof, shall be had against any incorporator, stockholder, officer or director of the Maker or of any successor corporation, either directly or through the Maker; it being expressly agreed that this Promissory Note and the obligations hereunder are solely corporate obligations of the Maker and any successor entity.

This Promissory Note shall be governed as to validity, interpretation, construction, effect and in all other respects by the laws and decisions of the State of New York. The Maker, and any endorsers, sureties and guarantors, agree that the state courts located in the State of New York shall have subject matter jurisdiction to entertain any action brought to enforce or collect upon this Promissory Note and, by execution hereof, voluntarily submit to personal jurisdiction of such courts; provided, however, such jurisdiction shall not be exclusive and, at its option, the Holder may commence such action in any other court which otherwise has jurisdiction.

The Maker waives service of process upon it and consents that all service of process may be made by certified mail (return receipt requested) directed to it, and service so shall be completed ten days after the same shall have been deposited in the U.S. mail.

The Maker waives demand for payment, presentment for payment, notice of nonpayment or dishonor, protest and notice of protest, and agrees to any extension of time of payment and partial payments before, at or after maturity. No renewal or extension of this Promissory Note, no release or surrender of any security for this Promissory Note, no release of any person liable hereon, no delay in the enforcement hereof and no delay or omission in exercising any right or power hereunder shall affect the liability of the Maker. No delay or omission by the Holder in exercising any power or right hereunder shall impair such right or power or be construed to be a waiver of any default, nor shall any single or partial exercise of any power or right hereunder preclude any or full exercise thereof or the exercise of any other right or power. Each legal holder hereof shall have and may exercise all the rights and powers given to Holder herein. This Promissory Note may not be changed or terminated orally, which may only be done in writing signed by both the Maker and the Holder. The Maker hereby waives any right to trial by jury of any claim, demand, action or cause of action arising under or in any way connected with or related to this Promissory Note. The execution and delivery of this Promissory Note has been authorized by the Board of Directors of the Maker.

This Promissory Note shall be binding upon the successors and permitted assigns of the Maker and inure to the benefit of the Holder and its successors, endorsees and permitted assigns.

The obligations of Maker hereunder shall not be assigned by Maker without the prior written consent of the Holder; provided, however, that no such consent shall be required for the assumption of such obligations by the successor to the Maker that participates in a merger with the Maker or an acquisition of the Maker.

If any term or provision of this Promissory Note shall be held invalid, illegal or unenforceable, the validity of all other terms and provisions hereof shall in no way be affected thereby.

[Signature appears on the next page]

IN WITNESS WHEREOF, the Maker has duly executed this Promissory Note on the date first above written.

APPLIED NEUROSOLUTIONS, INC.

By: _____
Authorized Officer

EXHIBIT A – INTEREST REPAYMENT ELECTION NOTICE

To: [HOLDER AT HOLDER'S ADDRESS]

Pursuant to Section 2 of the 12% Convertible Promissory Note of Applied NeuroSolutions, Inc. issued on December ____, 2008 (the "Note"), the undersigned Maker (as defined in the Note) hereby notifies you that it is electing to repay the outstanding accrued but unpaid interest on the Note which has become due as a result of the Interest Repayment Date (as defined in the Note) as follows:

_____ In full in cash on the Interest Repayment Date.

_____ In full in shares of the Company's Common Stock as specified below within four business days of the date of this Notice.

_____ In part in cash in the amount of \$_____, and in part in shares of the Company's Common Stock (as specified below) within four business days of the date of this Notice.

Interest Conversion Price: \$_____

Number of Shares To Be Delivered: _____

Applied NeuroSolutions, Inc.

By: _____

Name:

Title:

EXHIBIT B – NOTICE OF CONVERSION

NOTICE OF CONVERSION

(To be executed by the Holder in order to convert the Note)

The undersigned hereby elects to convert \$_____ of principal of the 12% Convertible Promissory Note of Applied NeuroSolutions, Inc. issued on December ____, 2008 (the “Note”), into Shares of Common Stock of Applied NeuroSolutions, Inc. according to the conditions set forth in such Note, as of the date written below.

Date of Conversion: _____

Note Conversion Price: \$ _____

Number of Shares To Be Delivered: _____

Signature: _____

Print Name: _____

Address: _____