Morgan, Lewis & Bockius LLP
101 Park Avenue
New York, NY 10178

April 9, 2014

United States Securities and Exchange
Commission Division of Corporation Finance
Washington, D.C. 20549
Attention: Jeffrey P. Riedler
Assistant Director

Re: Minerva Neurosciences, Inc.
Draft Registration Statement on Form S-1
Submitted Confidentially on February 14, 2014
CIK No. 0001598646

Dear Mr. Riedler:

On behalf of our client, Minerva Neurosciences, Inc. (the "Company"), set forth below is the Company's response to the comments contained in the letter dated March 14, 2014 (the "Comment Letter") from the staff (the "Staff") of the Securities and Exchange Commission (the "Commission"), which relates to the Company's Draft Registration Statement on Form S-1 confidentially submitted on February 14, 2014 (the "Registration Statement"). The Company is filing the Registration Statement (the "Revised Registration Statement") simultaneously with this letter. All references to page numbers in the responses below are to page numbers in the Revised Registration Statement. In order to facilitate your review, we have repeated each comment (each, a "Comment") in its entirety in the original numbered sequence.

Capitalized terms used in this letter but not defined herein have the meanings given to them in the Revised Registration Statement. Information provided in this letter on behalf of the Company have been provided to us by the Company.

General

1. **Please confirm that the graphics included in your registration statement are the only graphics you will use in your prospectus. If those are not the only graphics, please provide any additional graphics prior to their use for our review.**

   Response: The Company confirms that the graphics included in the Revised Registration Statement are the only graphics the Company will use in its prospectus.

2. **We note that you intend to request confidential treatment for portions of information contained in your exhibits. If you have not done so, please submit your application for confidential treatment as soon as possible so that we may begin our review of your request. Any staff comments to your application will be sent separately from comments to your draft registration statement.**

   Response: The Company acknowledges that the Staff will provide separate comments to the Company's confidential treatment request, which was submitted on March 31, 2014.

3. **Please supplementally provide us with copies of all written communications, as defined in Rule 405 under the Securities Act, that you, or anyone authorized to do so on your behalf, present to potential investors in reliance on Section 5(d) of the Securities Act, whether or not they retain copies of the communications. Similarly, please supplementally provide us with any research reports about you that are published or distributed in reliance**

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upon Section 2(a)(3) of the Securities Act of 1933 added by Section 105(a) of the Jumpstart Our Business Startups Act by any broker or dealer that is participating or will participate in your offering.

Response: The Company acknowledges the Staff's comment and will supplementally provide the Staff with such Rule 405 Communications. The Company does not anticipate that any research reports will be published or distributed by any broker or dealer participating in this offering in reliance on Section 2(a)(3) of the Securities Act; however, if such reports are published or distributed, the Company will provide such research reports to the Staff.

Risk Factors, page 10

4. **Please add a risk factor regarding foreign currency exchange risk in connection with your operations in Europe.**

   Response: In response to the Staff's comment, the Company has revised the disclosure on page 28 of the Revised Registration Statement.

5. **You disclose your plan to initially conduct further clinical trials in Europe and that intend to put off any clinical trials in the United State until 2015. Accordingly, please also discuss here any risks to your product development and domestic commercialization strategy from conducting trials outside of the United States. For example, you should address the possibility that the FDA may not accept the results of such trials and how such lack of acceptance could impact the regulatory approval process.**

   Response: In response to the Staff's comment, the Company has revised the disclosure on page 14 of the Revised Registration Statement.

"We plan to use potential future operating losses . . .," page 12

6. We refer to your disclosure on page 69 under the caption "Net Operating Losses and Carryforwards." Please expand this risk factor so that it includes all of the material information about your net operating loss carryforwards that you have provided on page 69. For example:

- **Please quantify your net operating loss carryforwards as of the most recent practicable date;**
- **Briefly describe why you may be subject to Section 382 limitations, specifying the transactions that might trigger an ownership change;**
- **State the likelihood that an ownership change occurred for purposes of Section 382; and**
- **If practicable, estimate the reduction on your available NOL carryforwards if Section 382 were triggered. If the entire amount of NOL carryforwards is at risk, please state as much.**

Response: In response to the Staff's comment, the Company has revised the disclosure on page 69 of the Revised Registration Statement. The Company supplementally advises the Staff that it does not intend to perform a detailed analysis to determine the likelihood that an ownership change has occurred for the purposes of Section 382, as the Company believes that this exercise would result in undue cost and effort, given the potential utilization of any net operating loss carryforwards is several years from present.

"We are heavily dependent on the success of our two lead product candidates . . ., page 12"

7. Please refer here to the comprehensive discussion beginning on page 117 of the process for regulatory approval in the European Union and the FDA.

Response: In response to the Staff's comment, the Company has revised the disclosure on page 12 of the Revised Registration Statement.

8. You state in the risk factor entitled "Our disclosure controls and procedures may not prevent . . ." that you have historically operated without full time employees. If your executive officers devote less than full time to the operation of your business, please add a separate risk factor with this information, and include how many hours per week they devote to the business.

Response: The Company advises the Staff that its current executive officers are all full time employees of the Company.

"If we are unable to obtain or protect intellectual property rights . . .," page 38

9. Please expand this risk factor to identify the licenses material to your business that give you the right to prepare, file and prosecute patent applications, and which licenses do not give you such rights.

Response: In response to the Staff's comment, the Company has revised the disclosure on pages 39-40 of the Revised Registration Statement.

"We may become involved in lawsuits to protect or enforce our patents...," page 40
"We may not be able to protect our intellectual property rights...," page 42
"Obtaining and maintaining our patent protection depends on compliance . . .," page 42

10. If you are aware or have experienced any challenges or infringements to your rights, or situations of material noncompliance with governmental rules regarding the patent process as described in these risk factors, as applicable, please so disclose.

Response: The Company advises the Staff that the Company is not aware of and has not experienced any challenges to its intellectual property rights. As a result, the Company has not revised the disclosure on pages 41-44.

Special Note Regarding Forward-Looking Statements, page 49

11. Please note that it is not appropriate to state or imply that you do not have liability for the statements in your registration statement. Your statement on page 50 that you "have not independently verified any third-party information" could imply that you are not taking liability for the statistical and other industry and market data included in your registration statement. In order to eliminate any inference that you are not liable for all of the information in your registration statement, please delete these statements or include a statement specifically accepting liability for these statements.

Response: In response to the Staff's comment, the Company has revised the disclosure on page 52 of the Revised Registration Statement by deleting the following statement: "Although we believe that the data from these third party sources are reliable, we have not independently verified any third party information."

Management's Discussion and Analysis of Financial Condition and Results of Operations, page 66
Contractual Arrangements, page 74

12. Here and on pages 109-110, please expand your descriptions of the license agreements related to MIN-101, MIN-117, and MIN-202 to describe the duration of each license agreement.

Response: In response to the Staff's comment, the Company has revised the disclosure on pages 115-117 of the Revised Registration Statement.

Fair Value of Common Stock, page 79

13. We may have additional comments on your accounting for stock compensation or any beneficial conversion features once you have disclosed an estimated offering price. Please supplementally provide us with a quantitative and qualitative analysis explaining the difference between the estimated offering price and the fair value of each equity issuance since December 20, 2013 through the date of effectiveness.

Response: The Company acknowledges the Staff's comment and will supplementally provide the Staff with a quantitative and qualitative analysis explaining the difference between the estimated offering price and the fair value of each equity issuance since December 20, 2013 through the date of effectiveness.

Business, page 85
Our Pipeline, page 90

14. Please include in your disclosure a brief discussion of the importance and use of statistical significance in preclinical and clinical trial analytics. Please also provide an explanation of "p-values" in layman's terms and put this terminology in context by explaining why p-values of .05 or less would be viewed as statistically significant.

Response: In response to the Staff's comment, the Company has revised the disclosure on page 97 of the Revised Registration Statement.

15. When you first describe the mechanism(s) of action for your pipeline compounds, please revise so that your discussion and use of technical terminology is sufficiently comprehensible to lay investors. By way of example only:

- **When you discuss the properties of MIN-101 as "an antagonist of 5-HT2A and sigma2 receptors," you should briefly explain this terminology, the significance of the 5-HT2A and sigma2 receptors and the biochemical effect and cellular response of these antagonists binding with the specified receptors; and**
- **When you discuss the differentiating attributes of MIN-301, you should briefly explain what a recombinant protein is, how MIN-301 "activates" ErbB4 target and describe the cellular**

response, the significance of ErbB4, and how activation of ErbB4 results in neurological effects.

Response: In response to the Staff's comment, the Company has revised the disclosure on pages 89-91 of the Revised Registration Statement.

16. Please revise to specify, as applicable, the specific quantitative primary and secondary endpoints of all of the trials discussed, and compare that to actual results observed.

Response: In response to the Staff's comment, the Company has revised the disclosure on pages 96-100, 104-105, 110 and 111-112 of the Revised Registration Statement.

17. In the illustrative charts appearing throughout your Business section to describe results of trials, please revise to ensure that the reader has a clear idea of the meaning and significance of the units of measurement employed. For example:

- **On pages 94 and 95, the vertical axes of your graphs denote "changes from baseline" but it is not readily apparent what these units of change represent or how to put total score decreases on the PANSS scale in their proper context; and**
- **On page 96, it is not clear what the acronym "PCP" stands for, nor is the scale of social interaction upon which test subjects were presumably measured ever defined.**

Response: In response to the Staff's comment, the Company has revised the disclosure on pages 97-100, 105-107, 110 and 113-114 of the Revised Registration Statement.

18. We note that your Phase IIa clinical trial of MIN-101 "was not powered to achieve statistically significant results." Yet, you go on to state that "statistical significance was reached in both the PPC and the FAS for the 5 [factor] negative score" and that the "3 factor negative scores were nearly statistically significant." Please revise to reconcile these statements and explain how not powering the trial for statistical significance bears on the weight to which investors should attach to your observations of statistical significance and near-statistical significance. In addition, you should explain the extent to which you may rely on these results in your regulatory filings to support claims of statistically significant treatment effects.

Response: In response to the Staff's comment, the Company has revised the disclosure on pages 96-97 of the Revised Registration Statement.

19. Similarly, we note your discussion on page 100 of "statistically significant improvements" observed in a Phase I study if MIN-117. As Phase I studies are not customarily powered for statistical significance, please clarify the appropriateness of your discussion of it here.

Response: In response to the Staff's comment, the Company has revised the disclosure on pages 105 of the Revised Registration Statement.

20. Where your clinical trials were powered for statistical significance or where you observed either statistical significance or near-statistical significance, please disclose the respective sample size of trial subjects.

Response: In response to the Staff's comment, the Company has revised the disclosure on pages 96, 105 and 110 of the Revised Registration Statement.

21. On page 93, please revise to explain the meaning and significance of "per protocol" and "full analysis" sets and why you have chosen to present charts illustrating clinical results for PPC and not also FAS.

Response: In response to the Staff's comment, the Company has revised the disclosure on page 97 of the Revised Registration Statement.

22. On page 95, please disclose the cardiac events that occurred in the MIN-101 subjects.

Response: In response to the Staff's comment, the Company has revised the disclosure on page 99 of the Revised Registration Statement.

23. In addition, on page 95 please explain the meaning and significance of QT/QTc prolongation and specifically differentiate the rates exhibited by the MIN-101 and placebo group.

Response: In response to the Staff's comment, the Company has revised the disclosure on pages 99-100 of the Revised Registration Statement.

24. On page 96, please specifically describe the "other reasons" MTPC decided to discontinue development of MIN-101 of which you are aware and which you have not articulated.

Response: In response to the Staff's comment, the Company has revised the disclosure on page 100 of the Revised Registration Statement.

25. We note your intention to conduct a "confirmatory" Phase IIb clinical trial for MIN-101 in 2014, as well as plans to initiate a Phase II clinical trial in 2014 for MIN-117 which you hope will serve as one of three planned "pivotal trials." As it is more typical for Phase III trials to serve as pivotal or confirmatory trials for determining efficacy and safety, please address in your disclosure whether your development strategy is customary and whether relying on a Phase II trial, rather than a Phase III trial, as the basis for marketing approval from regulatory authorities poses any difficulties or challenges.

Response: In response to the Staff's comment, the Company has revised the disclosure on pages 101 of the Revised Registration Statement.

26. Please define the abbreviation MPTP in the first instance you use it, on page 107, in the context of MIN-301.

Response: In response to the Staff's comment, the Company has revised the disclosure on page 113 of the Revised Registration Statement.

Competition, page 110

27. For all competing products described on pages 111-12, please disclose the manufacturer.

Response: In response to the Staff's comment, the Company has revised the disclosure on pages 117-119 of the Revised Registration Statement.

Government Regulation and Product Approval, page 117

28. Throughout your prospectus, you indicate that all clinical trials must be designed, conducted and performed in accordance with applicable regulatory requirements and ethical principles. Please provide more detail in this section regarding the "ethical principles" you must satisfy while conducting clinical trials.

Response: In response to the Staff's comment, the Company has revised the disclosure on page 127 of the Revised Registration Statement.

Management, page 133

29. Please describe the business experience of Marc Beer from 2009 through 2010.

Response: In response to the Staff's comment, the Company has revised the disclosure on page 142 of the Revised Registration Statement.

Description of Capital Stock, page 155
Forum, page 156

30. We note your disclosure entitled Forum on page 156. Please disclose that although you will provide a choice of forum clause in your restated certification of incorporation, it is possible that a court could rule that such provision is inapplicable or unenforceable.

Response: In response to the Staff's comment, the Company has revised the disclosure on page 168 of the Revised Registration Statement.

Exhibit Index

31. Please file the following agreements as exhibits to your registration statement:

- **Agreement and Plan of Merger dated November 12, 2013 between Sonkei Pharmaceuticals and Cyrenaic Pharmaceuticals;**
- **The acquisition agreement between the company and Mind-NRG;**
- **The assignment agreement with ProteoSys, pursuant to which Mind-NRG acquired the rights to MIN-301;**
- **The common stock purchase agreement dated February 12, 2014 with JJDC;**
- **Promissory Notes sold by the Company to affiliates of Care Capital and Index Ventures;**
- **Registration Rights Agreement with JJDC;**
- **Consulting agreement between the company and Geoff Race dated September 1, 2011 and any amendments thereto;**
- **Consulting agreement between the company and Remy Luthringer dated January 11, 2011, and any amendments thereto; and**

- **The 2013 Equity Incentive Plan.**

Response: The Company has filed or will file the aforementioned agreements as exhibits to the Revised Registration Statement or subsequent amendment.

* * * * *

Please contact the undersigned at (212) 309-6058 or Anna Tomczyk at (212) 309-6217 if you have any questions regarding the foregoing

Very truly yours,

/s/ David W. Pollak
David W. Pollak

cc: Minerva Neurosciences, Inc.
Deloitte & Touche LLP