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

DIVISION OF
CORPORATION FINANCE

July 24, 2014

Via E-mail
Sergio Traversa
Chief Executive Officer
Camp Nine, Inc.
546 Fifth Avenue
14th Floor
New York, NY 10036

Re: Camp Nine, Inc.
Registration Statement on Form S-1
Filed June 27, 2014
File No. 333-197109

Dear Mr. Traversa:

We have reviewed your registration statement and have the following comments. In some of our comments, we may ask you to provide us with information so we may better understand your disclosure.

Please respond to this letter by amending your registration statement and providing the requested information. If you do not believe our comments apply to your facts and circumstances or do not believe an amendment is appropriate, please tell us why in your response.

After reviewing any amendment to your registration statement and the information you provide in response to these comments, we may have additional comments.

General

1. Refer to the press release dated July 1, 2014 located on the Relmada.com website. Please tell us whether you intend that this press release does not constitute a "prospectus" as defined in Section 2(a)(10) of the Securities Act of 1933. To the extent you believe this press release complies with Rule 134 under the Securities Act, please address this in your response.

2. Additionally, forward-looking statements made by issuers of penny stock are excluded from the safe harbors in the Private Securities Litigation Reform Act. Please confirm that for so long as you issue penny stock, you will refrain from referencing the PSLRA safe harbors in your press releases and Exchange Act reports.

3. The financial statements should be updated, as necessary, to comply with Rule 8-08 of Regulation S-X at the effective date of the registration statement.

4. Provide a currently dated consent from the independent public accountant in any amended filing.

Outside Front Cover of Prospectus

5. Please revise the cross-reference to the risk factors section to point to the correct page.

Prospectus Summary, page 1

6. Please balance the discussion under Business Overview by disclosing in one of the opening paragraphs that you have not generated revenues and do not anticipate generating revenues for the foreseeable future, that your auditor has expressed a substantial doubt as to your ability to continue as a going concern, and disclose your net losses for the most recently completed fiscal year and interim period.

7. Please revise the discussion to clarify and distinguish what products and processes you have developed and the activities in which you intend to engage compared to those developed or to be undertaken by third parties. In this regard we note the statements concerning your development of highly efficient clinical programs to deliver valuable products in areas of high unmet medical need, and the statements on page 59 concerning your agreements with Malvern Consulting Group Inc. for d-methadone product development and to Scilucent, Inc. for levorphanol.

8. Please tell us whether any of the data provided by the listed sources here and in your business section, such as the data from other third-party sources and industry publications, were commissioned by you for use in connection with the registration statement. If so, please file consents pursuant to Rule 436 of the Securities Act as exhibits to your registration statement.

9. We note that you include sales data for established products sold by larger and better-funded competitors as indicative of the potential market for your products. To the extent you reference sales of competitors' products, please place this and other market data in context by discussing your competitive position in light of your size and stage of product development, as well as how your strategy of relying on off-patent drugs and repurposed drugs influences your competitive position and the comparability of the data you cite.

10. Please define the term "in-license" the first time it is used and briefly explain how in-licensing will allow you to "accelerate the pathway to become a fully integrated pain specialty biopharmaceutical company" and expand upon your plans for any in-licensing arrangements here and in the business section. Please tell us whether you have entered into any such agreements, and if so, please file any material agreements as exhibits.

11. Please clarify where in the clinical trial process your product candidates currently stand, as you have only filed one investigational new drug application ("IND"), and appear to be in preclinical stages for two of your product candidates. We also note your disclosure here that you have "an early stage pipeline of product candidates which are briefly described in the business section of this document," and on page 59 referring to "an early stage pipeline of an additional three products," yet it appears that an expanded discussion of these products has been omitted. Accordingly, please revise this section and your business section to thoroughly discuss your product pipeline.

12. We note your statement that your "open-label Phase I/IIa study at the Memorial Sloan Kettering Cancer Center showed that d-methadone was safe and well tolerated with 75% of the patients completing the study finding d-methadone to be moderately or very effective," and that your d-methadone can leverage the established analgesic efficacy and use of methadone "without its safety hazard." Please qualify these statements by clearly indicating, if true, that the FDA has not concluded that your specific product candidates are safe.

13. Please explain what you mean by "develop d-methadone as an innovative NMDA antagonist to platform to treat neuropathic pain or other potential conditions."

14. Please provide support for the statements on pages 1 and 52 that "levorphanol has also been shown to partially reverse analgesic tolerance to morphine and may therefore benefit patients who are tolerant to the analgesic effects of their current opioid," and that "historically both patients and doctors prefer oral dosing versus sublingual or patch products [of buprenorphine]," and on page 54 that MepiGel "is anticipated to compete with topical Lidoderm patch . . . ."

Risk Factors, page 4

Risks Related to Our Business, page 4

International commercialization of our product candidates faces significant obstacles, page 4

15. We note your disclosure that you "may plan to commercialize some of [y]our products internationally through collaborative relationships with foreign partners." Please tell us whether you have approached any potential partners, and to the extent you currently have any material agreements with foreign partners, please file them as exhibits.

Risks Related to Clinical and Regulatory Matters, page 6

Some of our products for clinical trials are manufactured outside the United States, page 10

16. We note your disclosure that you manufacture some products outside of the United States. Please revise your business section to discuss your manufacturing arrangements, and to the extent you have any material agreements file them as exhibits.

If the supplier of active pharmaceutical ingredient (API) or pharmaceutical excipient, page 10

17. We note your disclosure that you have a "single source for [y]our supply of levorphanol" and that interruption in the supply of levorphanol could have a material adverse effect on your business. Please revise your business section to identify this source and file any agreement with this provider as an exhibit, or explain to us why you do not believe it is material.

We rely on third parties to conduct our clinical trials, page 12

18. We note your disclosure that you have relied on third parties to conduct clinical trials. Please revise the summary and business section to disclose the terms of your arrangements with any third parties that you utilize in conducting clinical trials. Please also file any material agreements with these parties as exhibits and disclose the nature of any fees, royalties, or profit sharing that these agreements contemplate.

Our patent position is highly uncertain and involves complex legal and factual questions, page 17

19. We note your disclosure concerning pending patent applications by you and your licensors here, and your disclosure on page 55 that you have a "substantial" intellectual property portfolio comprised of "several patents and patent applications." Please revise this risk factor to include a brief discussion of your most material patents, the product candidates or technology to which they relate, the jurisdictions in which they were granted, and the expected expiration date of the patent protection. Additionally, if the patents are subject to a license agreement that may be terminated resulting in the loss of patent protection, please disclose.

Risks Related to Ownership of Our Common Stock, page 22

Our Common Stock may be deemed a "penny stock," page 23

20. Please reconcile your disclosure here that penny stock rules apply to "companies whose common stock is not listed on The Nasdaq Stock Market or other national securities exchange and trades at less than $4.00 per share, other than companies that have had average revenue of at least $6,000,000 for the last three years or that have tangible net

worth of at least $5,000,000" and the disclosure on page 25 that "[p]enny stocks generally are equity securities with a price of less than $5.00 . . . ."

Dilution, page 25

21. Please discuss the potential dilutive effect to stockholders that may occur if your warrants are exercised.

Selling Stockholders, page 25

22. We note that many of the listed selling stockholders are entities, rather than natural persons. For all selling stockholders that are not natural persons, please identify the person or persons who have voting or investment control over the company's securities that the entity owns in the footnotes to the table. In this regard, we note that the following entities do not have a voting person disclosed: Cornell Research Foundation, Kermit E Reynolds Jr Family LLC, Maurice Schwartz & Sons Partnership, Octet Investment Ltd, Principle Financial Holdings LLC, Rippee Mineral Management LLC, Rs Draughting & Engineering Services Ltd., and Standard Sand & Silica Co Inc. Please also fill in all blank spaces in the footnotes to this table in your next amendment.

Description of Business, page 52

23. Please significantly revise this section to include the information required by Item 101(h)(4) of Regulation S-K. For instance, disclose in greater detail your distribution methods, the development status of your lead products and pipeline products, the sources and availability of raw materials and the names of principal suppliers, the effect of existing or probable governmental regulations on your business, the costs and effects of compliance with environmental laws, and an estimate of the amount spent during each of the last two fiscal years on research and development activities. Please also clarify your role in the design, manufacturing and production of these products versus your suppliers' and other third parties' roles.

24. Please include the information required by Item 102 of Regulation S-K.

25. Please revise this section to include a section discussing the status and results of your clinical trials, including recent results and planned future development.

Company Overview, page 52

26. We note your references to proprietary systems in your LevoCap ER, BuTab ER, and MepiGel products. Please clarify the elements of these products that are proprietary, and to what extent you have patent protection for these systems.

Product Development, page 55

27. It appears that you have filed an investigational new drug (IND) application for LevoCap ER, but not d-methadone, BuTab ER, or MepiGel. Please disclose the identity of the filers and dates the application was filed for LevoCap, and explain to us why INDs have not been filed for your other product candidates.

Intellectual Property Portfolio and Market Exclusivity, page 55

28. We note your disclosure that you believe "Relmada's technology and products are protected by an extensive intellectual property estate of several patents or patent applications" and that you "have secured an intellectual property portfolio comprised of several patents and patent applications." Please disclose in this section the number of issued material patents, if any, covering your products. As to each material patent related to your products, please disclose the following information:
    - the expiration date of the patent;
    - the jurisdiction covered by the patent;
    - the type of protection afforded by each such patent; and
    - whether the patent is owned by or licensed to the company.

    As to any licensed material patent related to your products, please indicate from whom the patent was licensed and describe all material terms of the license agreement, including its duration and any conditions that must be satisfied in order to maintain the license. Please file all material license agreements as exhibits.

Key Strengths, page 55

29. Please explain the reference to "Exhibit 1" in the second bullet point of this subsection. We are unable to locate this exhibit in the prospectus.

Competition Overview, page 56

30. Please disclose the names and products of any other companies that are developing or have developed similar products.

Government Regulation, page 56

31. Please expand this section to describe the status of your products within the FDA approval process, e.g., what type of applications have been submitted, when, the nature of designations assigned by the FDA to your products, the basis for your belief that your products will be eligible for 505(b)(2) registration with the FDA, and why you believe your "two tiered" approach will reduce overall clinical development risks. We note that you have received two 7-year FDA Orphan Drug market exclusivities for MepiGel. Please tell us when you received these exclusivities, and disclose all material details of

any communications with the FDA here. Please also clarify that although you may pursue a 505(b)(2) pathway, that approval is not guaranteed by the FDA. Additionally, please clarify what you mean by the phrase on page 54 that you will "pursue the development of d-methadone via the traditional NDA route."

Market Price of and Dividends on Our Common Stock and Related Stockholder Matters, page 57

32. Please revise to include the high and low bid information for your common stock for each full quarterly period within the two most recent fiscal years and any subsequent interim period for which financial statements are included. Refer to Item 201(a)(1)(iii) of Regulation S-K.

Management's Discussion and Analysis, page 59

33. Please briefly explain why it is appropriate to characterize your product portfolio as "diversified" given that no products are currently approved for sale and you have not generated revenues and do not expect to generate revenues for the foreseeable future from these products.

34. Please characterize as a belief the statement that your "efforts are guided by the internationally recognized scientific expertise of [your] research team with inputs from a world-class scientific advisory board."

35. We note your statement that "[a]s of now none of [y]our drugs have been approved for sale in the United States or elsewhere" and that you have no "sales or marketing infrastructure." Please revise to disclose this in your summary and business section.

36. We note your disclosure that "[c]onsulting fees were paid to Malvern Consulting Group Inc. for d-methadone product development and to Scilucent, Inc. for levorphanol product development." Please file these agreements as exhibits or tell us why you do not believe they are material.

Discussion of the Acquisition of Medeor, page 60

37. Please revise your discussion of the acquisition of the Medeor research and development project for consistency with the disclosure in Note 6 on page F-25. The discussion here should include the acquisition of the agreement, the valuation of common stock, and the accounting treatment thereof.

Liquidity, page 62

38. Please disclose how long you expect you can continue operations with your current funds combined with any expected proceeds from this offering.

39. Your disclosure on page F-38 indicates that, as of March 31, 2014, the December 2012 Notes Payable were still in default. Please revise your discussion here to address this situation, possible cures, and the financial impact to you should you not be able to repay the note.

Directors and Executive Officers, page 66

40. Please provide the business experience during the past five years for Mr. Traversa and Mr. Salinas. In your revised discussion, include all the information required by Item 401(e)(1) of Regulation S-K. Please also disclose any past and present association between Mr. Traversa and Actinium Pharmaceuticals, Inc.

Involvement in Certain Legal Proceedings, page 68

41. You qualify your discussion of the involvement of directors and executive officers in legal proceedings with the phrase "to our knowledge." Please remove this, as the company is in a position to know whether there are any legal actions pending against it and its directors and executive officers.

Executive Compensation, page 69

42. Please revise to provide a narrative to the summary compensation table. Refer to Item 402(o) of Regulation S-K. In this regard, we note your disclosure concerning your Option Plan.

Scientific Advisory Board, page 70

43. We note your disclosure that the Scientific Advisory Board members receive "cash compensation for their service," and on page 72 that they "may be entitled to . . . shares pursuant to consulting agreements with the Company." Please discuss in greater detail the terms of the compensation arrangement with your Scientific Advisory Board.

Security Ownership of Certain Beneficial Owners and Management, page 71

44. Please expand footnote 1 to disclose the natural person(s) with voting and investment power over the shares held by Southern Biotech, Inc.

Description of Securities, page 74

45. We note the statement that the "following summary of [y]our capital stock is subject in all respects to applicable Nevada law. . . ." Please remove this statement, as it is not appropriate to qualify information in the registration statement by reference to information not included in the registration statement or filed as an exhibit.

46. Please disclose how many advisory firm warrants are currently issued and outstanding.

47. Please revise the disclosure on page 77 under the "listing" subheading to clarify that your common stock is quoted on the OTCBB.

Notes to Financial Statements, page F-10

Note 3 – Notes Payable, page F-14

48. We note that both the December 2012 and the September 2013 Notes Payable were issued at a discount and with warrants to purchase common stock, and that you have amortized both the discount and the fair value of the warrants over the term of the notes. Please revise your disclosure here, in the Liquidity section, and in the interim financial statements to indicate the effective interest rate of each set of Notes. Please refer to ASC 835-30-45-2.

Note 4 – Derivative Liabilities, page F-15

49. We note your disclosure here and in Note 6 on page F-25 that you used third party valuations to determine the fair value of your common stock, and that these valuations were used in the valuation of derivatives and stock compensation expense. Please revise your disclosure to name such experts, and obtain and file their consent under Item 601 of Regulation S-K.

Note 6 – Related Party Transactions, page F-24

Wonpung Mulsan

50. Please revise your disclosure here and in Note 8 to include the material terms of the license and development agreement with Wonpung.

Acquisition of Medeor, page F-25

51. Please revise your discussion of the acquisition of the Medeor research and development project to include the material terms of the royalty and milestone payments of the third party license agreement. Your disclosure in Note 8 on page F-27 should be similarly revised.

Exhibit Index, page II-5

52. We note your disclosure on page F-25 that in 2007 you entered into a license development and commercialization agreement with Wonpung Mulsan Co., Ltd. Please file this agreement as an exhibit, or explain to us why you do not believe it is material.

We urge all persons who are responsible for the accuracy and adequacy of the disclosure in the filing to be certain that the filing includes the information the Securities Act of 1933 and all applicable Securities Act rules require. Since the company and its management are in possession of all facts relating to a company's disclosure, they are responsible for the accuracy and adequacy of the disclosures they have made.

Notwithstanding our comments, in the event you request acceleration of the effective date of the pending registration statement please provide a written statement from the company acknowledging that:

- should the Commission or the staff, acting pursuant to delegated authority, declare the filing effective, it does not foreclose the Commission from taking any action with respect to the filing;

- the action of the Commission or the staff, acting pursuant to delegated authority, in declaring the filing effective, does not relieve the company from its full responsibility for the adequacy and accuracy of the disclosure in the filing; and

- the company may not assert staff comments and the declaration of effectiveness as a defense in any proceeding initiated by the Commission or any person under the federal securities laws of the United States.

Please refer to Rules 460 and 461 regarding requests for acceleration. We will consider a written request for acceleration of the effective date of the registration statement as confirmation of the fact that those requesting acceleration are aware of their respective responsibilities under the Securities Act of 1933 and the Securities Exchange Act of 1934 as they relate to the proposed public offering of the securities specified in the above registration statement. Please allow adequate time for us to review any amendment prior to the requested effective date of the registration statement.

You may contact Aamira Chaudhry (202) 551-3389 or Amy Geddes at (202) 551-3304 if you have questions regarding comments on the financial statements and related matters. Please contact Ryan Adams at (202) 551-3191 or me at (202) 551-3217with any other questions.

Sincerely,

/s/ J. Nolan McWilliams

J. Nolan McWilliams
Attorney-Advisor

cc: Via-Email
Thomas R. Slusarczyk
The Matt Law Firm, PLLC