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

DIVISION OF
CORPORATION FINANCE

August 1, 2013

VIA E-mail
Scott E. Way
General Counsel
LDR Holding Corporation
13785 Research Boulevard, Suite 200
Austin, Texas 78750

Re: LDR Holding Corporation
Confidential Draft Registration Statement on Form S-1
Submitted July 18, 2013
CIK No. 0001348324

Dear Mr. Way:

We have reviewed your draft 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 providing the requested information and either submitting an amended draft registration statement or publicly filing your registration statement on EDGAR. 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 the information you provide in response to these comments and your amended draft registration statement or filed registration statement, we may have additional comments.

1. We note your response to our prior comment 3, however your graphics continue to contain unbalanced disclosure focusing disproportionately on the positive aspects of your products. We also note that the graphics still contain more text than necessary to explain the visuals and appear to repeat information in the summary and business sections. Please revise accordingly.

2. It remains unclear why you believe the chart on the back cover page is an appropriate graphic for investors. Please tell us why you believe the data reflected in this chart provides representative information regarding patients' experiences. In addition, tell us why you do not believe it is necessary to add more context to this chart so investors may fully understand the information presented, including how "success" is defined.

Prospectus Summary, page 1

3. We note your response to our prior comment 5 regarding the FDA approval status of your Mobi-C product. Generally, it is inappropriate to describe your product assuming FDA approval when such approval has not been granted yet. You should revise your disclosure appropriately prior to seeking effectiveness.

4. We note your response to prior comment 6. Please revise so that the discussion of your losses is not in parentheses. Also, it is unclear why you believe that adjusted EBITDA is an appropriate metric for inclusion in the summary discussion. Please revise or advise.

5. We note the supporting materials you have provided in response to prior comment 7. Based upon our review of the materials, it is unclear why you believe it is appropriate to include in the prospectus broad definitive statements about your products when the materials that you appear to rely on for such statements are not independent or objective and are not in the public domain. If the statements are based on your belief, please say that clearly rather than implying otherwise. We also note that your statements in the prospectus about "rapid adoption" are based on your revenues, rather than on market adoption as implied in your disclosure. Please revise your disclosure accordingly.

6. We note that you have provided only limited revisions in response to prior comment 8. Specifically, it appears that you have revised one sentence on page 1 and added another sentence on page 2. These revisions are insufficient. Please review your summary and business sections and revise to address relevant limitations and/or competitive disadvantages of your products. Please avoid repeating disclosure verbatim in these sections.

7. Your disclosure on page 4 states that the cervical disc market is "relatively small." Revise to ensure that your discussion throughout the prospectus accurately reflects the current size and limitations of this nascent market. Your current disclosure, including your statements that the Mobi-C, if approved, will drive significant revenue growth for you, focuses disproportionately on the market's future growth potential rather than its present early stage of development.

Summary Consolidated Financial Information, page 10

8. We note your response to prior comment 12. Please provide us with a more detailed analysis as to why the pro forma presentation of the conversion of the convertible notes into common stock is factually supportable in accordance with Article 11 of Regulation S-X.

9. We note that you are presenting pro forma balance sheet information that consists of adjustments resulting from separate transactions, including the Reorganization, the conversion of the preferred stock and the conversion of the convertible notes. Please

revise to provide pro forma financial information in accordance with Article 11 of Regulation S-X, with separate columns for each separate transaction for which you are presenting pro forma effects.

The safety and efficacy of some of our products…, page 23

10. With a view toward disclosure, please provide additional detail regarding the nature of your post-market clinical obligations, including expected timetables and anticipated costs to you.

Critical Accounting Policies and Estimates, page 75

Stock-based compensation, page 78

11. We note your response to prior comment 45. Please revise to include a discussion similar to your response of the basis for the company's conclusions regarding the extent to which it used the historical volatility of comparable publicly traded companies in accordance with Question 5 of SAB Topic 14.D.1.

Suppliers, page 105

12. We note your response to prior comment 28. However, it is unclear from your response whether you have material contracts with non-single source or non-limited source suppliers. Please clarify and note that your disclosure should describe the terms of these agreements, if any.

Competition, page 106

13. We note your response to prior comment 29. Revise this section to describe more specifically the products currently on the market that will directly compete with the Mobi-C. Given your prominent disclosure elsewhere in the prospectus regarding the uniqueness of your Mobi-C product and your expectation that it will be the first FDA approved device of its kind, please add provide balancing disclosure regarding the competitive landscape throughout the prospectus, as appropriate.

14. We note the sixth sentence of the first paragraph of this section. Please clarify whether the "smaller spine market participants" that you have identified compete in the traditional and/or non-traditional markets. In addition, please characterize the size of these additional market participants relative to your company, rather than relative to the significant competitors referenced in the preceding sentence in the paragraph.

15. We note your responses to prior comments 33 and 34. Please update to provide the requested information as of the most recent dates practicable.

Notes to Consolidated Financial Statements, page F-7

Note 2 – Significant Accounting Policies, page F-7

(i) – Goodwill and Other Intangible Assets, page F-10

16. We note your response to prior comment 35 and related disclosures on page F-15. Please further disclose the nature of the costs that were initially capitalized, such as acquisition costs, legal fees, application costs and defense costs. If such costs are other than third party acquisition costs for an existing patent, disclose how you determine which costs are capitalized versus the costs that are expensed.

(q) – Net Loss Per Share, page F-13

17. We note your response to prior comment 38. We note that these instruments should be included in both basic and diluted EPS, even if anti-dilutive. Please revise your policy and adjust your net loss per share calculation to reflect the warrants issued for nominal consideration in a manner similar to a stock split or stock dividend for which retroactive treatment is required by paragraph 260-10-55-12 of the FASB ASC. Refer to SAB Topic 4.D.

Note 9 – Long-term Debt, page F-17

(c) – Loan Facility, page F-17

18. We note the amended loan facility in February 2011 resulted in a $1.5 million reduction in additional paid in capital. Please tell us why this was not recognized currently in income of the period. Refer to Subtopic 470-50 of the FASB Accounting Standards Codification.

19. Please provide the disclosures required by Section 815-40-50 of the FASB Accounting Standards Codification for the warrants. Include a discussion of your policy for the reassessment and reclassification of this contract under paragraph 815-40-35-8 of the FASB Accounting Standards Codification.

(d) – Convertible Notes, page F-19

20. Please tell us how you have accounted for the contingent beneficial conversion feature, which appears to be an embedded derivative within a hybrid instrument. If this feature has not been measured and separated from the host contract, the hybrid instrument should be recorded at fair value. Refer to paragraphs 815-15-25-52 through -53, 815-15-30-1 and 815-15-35-2 of the FASB ASC. Revise your fair value table on page F-11 to reflect these notes and provide the disclosures under paragraphs 815-15-50-2 and 825-10-50-10 of the FASB ASC as needed.

Note 10 – Stockholders' Equity, page F-20

(g) – Escrow Agreement, page F-21

21. We note your response to prior comment 42. We note the terms of your put-call agreement do not appear identical to the guidance you cited, or under paragraphs 480-10-55-59 through 480-10-55-62 of the FASB ASC, and that such guidance is limited to the specific derivative instruments described. Please provide us with further analysis or other support for your position, including a comparison of the current rights of the Medical shares as compared to the Registrant's shares. We further note this agreement has been amended. Discuss any circumstances under which the put-call agreement could be further amended or terminated.

Exhibits

22. We note your response to our prior comment 24 that the company will file all exhibits upon the first public filing of the registration statement. Please tell us why you are not able to file these exhibits prior to such public filing. Note that the staff may have additional comment upon filing of the agreements.

If you intend to respond to these comments with an amended draft registration statement, please submit it and any associated correspondence in accordance with the guidance we provide in the Division's October 11, 2012 announcement on the SEC website at http://www.sec.gov/divisions/corpfin/cfannouncements/drsfilingprocedures101512.htm.

Please keep in mind that we may publicly post filing review correspondence in accordance with our December 1, 2011 policy (http://www.sec.gov/divisions/corpfin/cfannouncements/edgarcorrespondence.htm). If you intend to use Rule 83 (17 CFR 200.83) to request confidential treatment of information in the correspondence you submit on EDGAR, please properly mark that information in each of your confidential submissions to us so we do not repeat or refer to that information in our comment letters to you.

You may contact Gary Newberry at 202-551-3761 or Kevin L. Vaughn, Accounting Branch Chief, at 202-551-3643 if you have questions regarding comments on the financial statements and related matters. Please contact Jay Mumford at 202-551-3637 or Daniel Morris, Special Counsel, at 202-551-3314 with any other questions.

Sincerely,

/s/ Daniel Morris for

Amanda Ravitz
Assistant Director

cc: via E-mail Carmel M. Gordian
Ted A. Gilman