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

DIVISION OF
CORPORATION FINANCE

October 8, 2014

Via E-Mail
Itamar Shimrat
Chief Executive Officer
Cell Source, Inc.
65 Yigal Alon Street
Tel Aviv Israel 67433

Re: Cell Source, Inc.
Amendment No. 1 to Registration Statement on Form S-1
Filed September 23, 2014
File No. 333-197972

Dear Mr. Shimrat:

We have reviewed your responses to the comments in our letter dated September 4, 2014 and have the following additional comments.

Prospectus Summary, page 5

About Us, page 5

1. In one of the opening paragraphs, please clearly disclose that you currently do not own any patents and only have licenses to intellectual property. Also, please disclose that you do not currently have any products in the market and that before you can legally distribute and market your products you must receive regulatory approvals, such as from the FDA or similar regulatory agencies, and you have not yet received any such regulatory approvals. Please also briefly mention the potentially lengthy process you may need to undertake before you can get any products through clinical trials and to the market. Clarify if there is one or more products that is further along in the approval process than your other products and specify the product or products. Also, balance the disclosure to indicate that there is no guarantee you will be able to ultimately get your products approved by regulatory agencies and ultimately to the market.

Management's Discussion and Analysis, page 20

2. Where you discuss the various steps to commercializing your products, please balance your disclosure to indicate if there may be any obstacles to moving from one step in the process to the next, if applicable. For instance, is there a possibility of delays from one step to the next or is there the possibility that you may not succeed with a given trial?

Business, page 28

Science and Technology Overview, page 33

3. We note your response to our prior comment 18 and reissue in part. Please revise your disclosure in this section to specify the total number of patents you license and the dates the patents expire. In addition, please explain what "earliest priority" and "entry date" mean.

4. We note your response to our prior comment 19 and reissue in part. Please disclose the remaining terms of the patent license agreements.

Our Overall Development Status and Future Development Program, page 49

5. We note your response to our prior comment 22 and reissue in part. Please revise this section further to specify when the approval to conduct studies was granted in Italy. Please also make clear, if true, that you have not submitted any new drug applications to the FDA or currently have anything pending for approval with the FDA.

Government Regulation and Product Approval, page 65

6. We note your response to our prior comment 27 and your statement here that you "had no contact with any regulator regarding such approvals." On page 49, however, you state that you requested and obtained approval in Italy to conduct human clinical trials using the Megadose Drug Combination. Please revise for consistency or advise.

Management, page 67

7. We note your response to our prior comment 28 and reissue in part. For all your officers and directors please disclose the title and company of employment within the last five years.

Selling Stockholders, page 72

8. We note your response to our prior comment 33 and reissue in part. Both Mr. Friedman and Mr. Brown appear to be your directors and selling shareholders. Please revise to indicate the nature of any position, office, or other material relationship that the selling stockholders have had within the past three years with the registrant and any of its predecessors of affiliates. Refer to Item 507 of Regulation S-K.

Item 17. Undertakings, page 131

9. The following two undertakings do not appear to be applicable to your offering:

- the second undertaking on page 132 beginning with "[p]rovided, however, that paragraphs…" and
- the undertaking (4) beginning with "[t]he undersigned registrant hereby undertakes that, for purposes of determining any liability under the Securities Act, each filing of the registrant's annual report pursuant to Section 13(a) or Section (15(d) of the Exchange Act…."

Please revise or advise us why you included them. Refer to Item 512 of Regulation S-K.

Please contact Tonya K. Aldave at (202) 551-3601 or me at (202)551-3210 with any questions.

Sincerely,

/s/ Susan Block

Susan Block
Attorney-Advisor

cc: Via E-Mail
Gregory Sichenzia, Esq.