



DIVISION OF
CORPORATION FINANCE

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

April 25, 2013

Via E-Mail

Thomas M. Palay, Ph.D.
President and Vice Chairman of the Board
Cellular Dynamics International, Inc.
525 Science Drive
Madison, WI 53711

**Re: Cellular Dynamics International, Inc.
Amended Confidential Draft Registration Statement on Form S-1
Submitted April 10, 2013
CIK No. 0001482080**

Dear Dr. Palay:

We have reviewed your amended confidential 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 confidential 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 confidential draft registration statement or filed registration statement, we may have additional comments.

General

1. We note that you submitted a confidential treatment request on April 10, 2013. We will provide any comments in relation to your confidential treatment request and the related disclosure in a separate comment letter.

Research and development, page 47

2. We note your response to prior comment 16. You state that you do not include fully allocate research and development costs by product. To the extent that any R&D cost information by product you have reveals significant amounts spent on a particular product, disclose the product and nature and amount of the costs. Otherwise, disclose either that you do not track any R&D cost by product, or that no single product accounts for a significant amount of R&D costs. Further, revise your disclosure to separately

indicate the amount of allocated overhead and facilities expenses in each year as a percentage of research and development expenses, similar to how you disclose compensation and benefits and materials and supplies.

Field patent family, page 71

3. We note your additional disclosure in response to our prior comment 20. Please revise your description of the Field patent family to specify the expiration dates of U.S. Patents Nos. 5,733,727 and 6,399,300.

In addition, as these patents expire in the near future, please describe the potential impact on your business and results of operations and your anticipated response to the impending loss of protection, including for example, any plans to apply for exclusivity extensions and the basis for such actions. If you do not intend to take any such actions please disclose that as well

Note 2. Summary of significant accounting policies
Revenue recognition, page F-9

4. On page 46, you disclose that most of your collaborations, partnerships and other revenue recognized in 2012 was related to activity on two large multi-year arrangements and from two research collaboration agreements. Please revise your disclosure herein or elsewhere in your financial statements to discuss your multi-year and collaboration agreements and their significant terms.

Segment Reporting, page F-12

5. We note your response to our prior comment 33. Where revenue from an individual product is significant, ASC 280-10-50-40 requires disclosure. For each period presented, please separately disclose your sales revenue by individual products, including iCell Cardiomyocytes, iCell Neurons, iCell Hepatocytes, Media and iCell Endothelial Cells. To the extent revenue from a product is not significant, you may disclose it with similar products whose revenue is also not significant.

General

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

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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 Dana Hartz at (202) 551-3648 or Mark Brunhofer at (202) 551-3638 if you have questions regarding comments on the financial statements and related matters. Please contact Amy Reischauer at (202) 551-3793 or me at (202) 551-3715 with any other questions.

Sincerely,

/s/ Jeffrey P. Riedler

Jeffrey P. Riedler
Assistant Director

cc: Via E-Mail
Anna M. Geyso
Godfrey & Kahn, S.C.
780 North Water Street
Milwaukee, WI 53202