



DIVISION OF
CORPORATION FINANCE

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

September 11, 2023

Francis Knuettel II
Chief Executive Officer
Chromocell Therapeutics Corporation
4400 Route 9 South, Suite 1000
Freehold, NJ 07728

Re: Chromocell Therapeutics Corporation
Amendment No. 5 to Registration Statement on Form S-1
Filed September 1, 2023
File No. 333-269188

Dear Francis Knuettel II:

We have reviewed your amended 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. Unless we note otherwise, our references to prior comments are to comments in our July 28, 2023 letter.

Amendment No. 5 to Registration Statement on Form S-1 filed September 1, 2023

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1. We note your disclosure that you "plan to proceed with [y]our clinical trials in 2023, focusing on a study to evaluate this rash mitigation strategy and a Phase 2a proof-of-concept study assessing the potential efficacy of CC8464 in EM patients with a genetic disposition" and your revised disclosure that you are "evaluating doing the rash mitigation and [y]our proof-of-concept study in a different national jurisdiction acceptable to the FDA." Please update your disclosure to clarify whether you still plan to begin these studies in 2023 or whether your timeline has been delayed. In addition, please expand

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your disclosure of the planned trials to describe the material elements of the trial design and your anticipated timeline for completion of the trials or otherwise advise.

2. Please revise your disclosure to clarify when you plan to conduct in vivo and in vitro studies on the treatment of eye pain with CC8464 as a topical agent. In addition, we note your prior Phase 1 study of CC8464 appeared to evaluate administering CC8464 with oral doses. Please clarify whether you have already developed CC8464 as a topical agent or otherwise advise.

You may contact Kristin Lochhead at 202-551-3664 or Daniel Gordon at 202-551-3486 if you have questions regarding comments on the financial statements and related matters. Please contact Doris Stacey Gama at 202-551-3188 or Jason Drory at 202-551-8342 with any other questions.

Sincerely,

Division of Corporation Finance
Office of Life Sciences

cc: David Danovitch, Esq.