

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

DIVISION OF CORPORATION FINANCE

January 2, 2024

Thomas P. Kelly Chief Financial Officer Deciphera Pharmaceuticals, Inc. 200 Smith Street Waltham, MA 02451

> Re: Deciphera Pharmaceuticals, Inc. Form 10-K for the Year Ended December 31, 2022 Filed February 7, 2023 File No. 001-38219

Dear Thomas P. Kelly:

We have completed our review of your filing. We remind you that the company and its management are responsible for the accuracy and adequacy of their disclosures, notwithstanding any review, comments, action or absence of action by the staff.

Sincerely,

Division of Corporation Finance Office of Life Sciences