

November 9, 2021

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

Pharmaceuticals, Inc.

fiscal year ended December 31, 2020
2021

Re: Deciphera

Form 10-K for the
Filed February 9,
File No. 1-38219

Dear Mr. 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