Kura Oncology, Inc. 12730 High Bluff Drive Suite 400 San Diego, CA 92130 (858) 500-8800

August 14, 2020

VIA EDGAR

United States Securities and Exchange Commission Division of Corporation Finance 100 F Street, N.E. Washington, D.C. 20549 Attn: Jeffrey Gabor

Re: Kura Oncology, Inc.

Registration Statement on Form S-3 File No. 333-241663

Ladies and Gentlemen:

Kura Oncology, Inc. (the "*Registrant*") hereby requests that the Securities and Exchange Commission (the "*Commission*") take appropriate action to cause the above-referenced Registration Statement on Form S-3 to become effective at 4:00 p.m. Eastern Time on Tuesday, August 18, 2020, or as soon thereafter as is practicable. The Registrant also hereby requests a copy of the written order verifying the effective date.

If you have any questions regarding this request, please contact Charles J. Bair of Cooley LLP at (858) 550-6142.

Sincerely,

KURA ONCOLOGY, INC.

By: /s/ Marc Grasso

Marc Grasso, M.D.

Chief Financial Officer and Chief Business Officer

cc: Charles J. Bair, Cooley LLP