

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

October 24, 2023

Cameron Turtle, DPhil Chief Operating Officer Aeglea BioTherapeutics, Inc. 221 Crescent Street Building 23, Suite 105 Waltham, MA 02453

Re: Aeglea BioTherapeutics, Inc.
Preliminary Proxy Statement on Schedule 14A
Filed August 8, 2023
File No. 001-37722

Dear Cameron Turtle:

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

cc: Branden C. Berns