

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

May 8, 2018

Joshua R. Disbrow Chairman and Chief Executive Officer Aytu BioScience, Inc. 373 Inverness Parkway, Suite 206 Englewood, Colorado 80112

Re: Aytu BioScience, Inc.
Preliminary Proxy Statement on Schedule 14A
Filed April 27, 2018
File No. 001-38247

Dear Mr. Disbrow:

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.

Division of Corporation Finance Office of Healthcare & Insurance

cc: Marcelle S. Balcombe, Esq.