

U.S. Securities and Exchange Commission
Division of Corporation Finance
100 F Street, N.E.
Washington, D.C. 20549

Attn: Ms. Heather Percival

Re: Bionano Genomics, Inc.
Registration Statement on Form S-1
File No. 333-230588

Acceleration Request

Requested Date: Wednesday, April 17, 2019
Requested Time: 4:00 P.M. Eastern Time

Ladies and Gentlemen:

In accordance with Rule 461 under the Securities Act of 1933, as amended, the undersigned registrant (the “**Registrant**”) hereby requests that the Securities and Exchange Commission take appropriate action to cause the above-referenced Registration Statement on Form S-1 (File No. 333-230588) (the “**Registration Statement**”) to become effective on April 17, 2019, at 4:00 P.M., Eastern Time, or as soon thereafter as is practicable.

Once the Registration Statement has been declared effective, please orally confirm that event with James Pennington of Cooley LLP, counsel to the Registrant, at (858) 550-6029.

Very truly yours,

Bionano Genomics, Inc.

By: /s/ R. Erik Holmlin, Ph.D.

R. Erik Holmlin, Ph.D.

President and Chief Executive Officer

cc: Mike Ward, Bionano Genomics, Inc.
James Pennington, Cooley LLP