Bionano Genomics, Inc. 9540 Towne Centre Drive, Suite 100 San Diego, California 92121 (858) 888-7600

May 8, 2023

Via Edgar

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

Attn: Jane Park

Re: Bionano Genomics, Inc.

Registration Statement on Form S-3

File No. 333-270459

Ladies and Gentlemen:

Pursuant to Rule 461 under the Securities Act of 1933, as amended, the undersigned registrant hereby requests that the Securities and Exchange Commission take appropriate action to cause the above-referenced Registration Statement on Form S-3 to become effective at 5:30 p.m. Eastern Time on May 10, 2023, or as soon thereafter as is practicable.

Once the above-referenced Registration Statement has been declared effective, please orally confirm that event with Phillip S. McGill of Cooley LLP, counsel to the Registrant, at (858) 550-6193.

BIONANO GENOMICS, INC.

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

R. Erik Holmlin, Ph.D. President and Chief Executive Officer

cc: Phillip S. McGill, Cooley LLP