PREDICTIVE ONCOLOGY INC. 91 43rd Street, Suite 110 Pittsburgh, PA 15201

August 21, 2024

VIA EDGAR

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

Attention: Ms. Jane Park, Staff Attorney

Re: Predictive Oncology Inc. Acceleration Request for Registration Statement on Form S-3, as amended File No. 333-281579

Requested Date: August 23, 2024 Requested Time: 4:05 P.M. Eastern Time

Ladies and Gentlemen:

Pursuant to Rule 461 under the Securities Act of 1933, as amended, Predictive Oncology Inc. (the "*Registrant*") hereby requests that the abovereferenced Registration Statement on Form S-3 (File No. 333-281579) (the "*Registration Statement*") be declared effective at the "Requested Date" and "Requested Time" set forth above, or as soon as practicable thereafter, or at such later time as the Registrant or its counsel may orally request (the "*Registration Statement Acceleration Request*") via telephone call to the staff (the "*Staff*") of the Division of Corporation Finance of the Securities and Exchange Commission (the "*Commission*"). The Registrant hereby authorizes Alan Seem of DLA Piper LLP (US), counsel for the Registrant, to make such request on the Registrant's behalf.

The Registrant acknowledges that the Registrant 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.

We request that we be notified of the effectiveness of the Registration Statement by telephone to Alan Seem of DLA Piper LLP (US) at 650-833-2050. Thank you for your assistance.

Very truly yours,

/s/ Raymond Vennare

Raymond Vennare Chief Executive Officer

cc: Raymond Vennare (Chief Executive Officer, Predictive Oncology Inc.) Josh Blacher (Interim Chief Financial Officer, Predictive Oncology Inc.) Alan Seem (DLA Piper LLP (US))