

# Predictive Oncology Study Demonstrates Long-Term Stability and Viability of Proprietary Biobank of Primary Tumor Specimens for Pharmaceutical Drug Discovery

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*Study further validates highly reproducible drug response data. Enables AI platform to model and predict patient outcomes on historical samples*

*Global biospecimen market valued at \$4.4 billion in 2023, expected to grow at an annual CAGR of more than 13%, reaching \$11.7 billion by 2031<sup>1</sup>*

PITTSBURGH, Aug. 27, 2024 (GLOBE NEWSWIRE) -- Predictive Oncology Inc. (NASDAQ: POAI), a leader in AI-driven drug discovery, today announced the results of a successful study that demonstrates the long-term stability and viability of the more than 150,000 cryopreserved patient tumor samples stored within the Company's proprietary biobank.

Importantly, with more than 20 years of longitudinal patient and drug response data, the study demonstrated that the samples stored in the biobank continue to produce drug response data that is consistent with their original clinical testing results. This is critical for predicting outcomes, most notably overall survival (OS), for guiding personalized therapies, target validation, and *in silico* modeling of drug-tumor responses.

To successfully demonstrate the reproducibility of drug response results for these biobank samples, a comparative study was executed using previously generated drug responses across a subset of patient ovarian tumor samples maintained in the Company's biobank. These samples had originally been tested and cryopreserved between 2008 and 2016.

Concordance of drug response results between the original fresh patient sample testing and long-term cryogenically stored tumor material from the same patient was 100%.

"We are extremely pleased with the results of this study, which demonstrates that even after an extended period of time – some as long as 16 years – the samples cryopreserved in our biobank remain viable and able to deliver the same drug response data as when originally tested," said Dr. Arlette Uihlein, SVP of Translational Medicine and Drug Discovery at Predictive Oncology. "This not only validates the utility of our biobank, but also the strength and reliability of the drug response data that we compiled over those many years. We are uniquely positioned to enable drug developers to query patient responses to their drug candidates, accounting for real-world patient heterogeneity, and to validate targets and biomarkers long before human clinical trials commence."

"Our biobank of more than 150,000 tumor specimens, 200,000 pathology slides, and 20 years of actionable drug and tumor response data represent key assets that are unique to Predictive Oncology," stated Raymond Vennare, Chief Executive Officer of Predictive Oncology. "With these capabilities, we can build models capable of accurately predicting patient outcomes, allowing us to play a key role in guiding personalized therapies, and discovering novel biomarkers. The results of this study demonstrate the long-term viability of these tumor samples, underscoring its value not only to Predictive Oncology, but our drug developer partners as well."

Predictive Oncology also announced today the release of a new white paper that discusses this study, and the importance of tumor sample viability, in greater detail. The white paper can be accessed at: <https://predictive-oncology.com/blog/reproducible/>

## About Predictive Oncology

Predictive Oncology is on the cutting edge of the rapidly growing use of artificial intelligence and machine learning to expedite early biomarker and drug discovery and enable drug development for the benefit of cancer patients worldwide. The company's proprietary AI/ML platform has been scientifically validated to predict with 92% accuracy if a tumor sample will respond to a certain drug compound, allowing for a more informed selection of drug/tumor type combinations for subsequent in-vitro testing. Together with the company's vast biobank of more than 150,000 assay-capable heterogeneous human tumor samples, Predictive Oncology offers its academic and industry partners one of the industry's broadest AI-based drug discovery solutions, further complimented by its wholly owned CLIA lab and GMP facilities. Predictive Oncology is headquartered in Pittsburgh, PA.

## Investor Relations Contact

Tim McCarthy  
LifeSci Advisors, LLC  
[tim@lifesciadvisors.com](mailto:tim@lifesciadvisors.com)

## Forward-Looking Statements:

Certain matters discussed in this release contain forward-looking statements. These forward-looking statements reflect our current expectations and projections about future events and are subject to substantial risks, uncertainties and assumptions about our operations and the investments we make. All statements, other than statements of historical facts, included in this press release regarding our strategy, future operations, future financial position, future revenue and financial performance, projected costs, prospects, changes in management, plans and objectives of management are forward-looking statements. The words "anticipate," "believe," "estimate," "expect," "intend," "may," "plan," "would," "target" and similar expressions are intended to identify forward-looking statements, although not all forward-looking statements contain these identifying words. Our actual future performance may materially differ from that contemplated by the forward-looking statements as a result of a variety of factors including, among other things, factors discussed under the heading "Risk Factors" in our filings with the SEC. Except as expressly required by law, the company disclaims any intent or obligation to update these forward-looking statements.

<sup>1</sup> <https://www.biospace.com/biospecimen-contract-research-services-market-worth-usd-11-70-billion-to-2031>