Predictive Oncology and Cvergenx announce partnership to develop the first-ever genomics-based approach to precision radiation therapy and drug discovery using artificial intelligence

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EAGAN, Minn., Feb. 23, 2023 (GLOBE NEWSWIRE) -- Predictive Oncology Inc. (NASDAQ: POAI) and Cvergenx, Inc. today announced an agreement to form a strategic partnership that has the potential to revolutionize the field of radiation oncology with the first-ever genomics-based artificial intelligence approach to personalized radiotherapy and drug discovery.

The objective of this collaboration will be to leverage and maximize the combined power of their respective proprietary technologies and domain expertise for a common purpose. By applying Predictive Oncology's drug discovery, artificial intelligence and machine learning capabilities (PEDAL), and the Cvergenx precision genomics radiation therapy platform (pGRT™), the two companies will pursue ways in which to optimize radiotherapy (RT) to improve patient outcomes in a way that has never been done before.

"The central principle in precision medicine is that cancer therapy should be tailored to the individual tumor biology. Even so, radiation therapy, the most commonly utilized therapeutic agent in clinical oncology, has yet to enter the era of precision therapy," said Raymond F. Vennare, Chief Executive Officer of Predictive Oncology. "We believe that the next and most significant paradigm shift in the field of radiation oncology will come from exploiting tumor genomics to optimize RT prescription dose and to identify drug targets for the development of radiosensitizers and radioprotectors for biopharma and industry."

By applying artificial intelligence and machine learning to explore the possibility of personalizing and optimizing radiotherapy prescription dose, combined with the discovery of medicinal radiosensitizers and radioprotectors, this strategic partnership may potentially lead to the repurposing of existing compounds or the development of an entirely new class of drugs. More than one million patients are treated with radiotherapy every year in the US. If the overall survival of RT-treated patients is improved by 4%, that would translate into 40,000 lives, almost equivalent to eradicating breast cancer.

"Today, RT is prescribed based on a one-size fits all approach where all tumors are treated with uniform doses of RT. pGRT provides the first clinically validated approach to optimize RT prescription dose for each individual patient," explained Javier F. Torres-Roca, MD, Co-founder and Acting Chief Executive Officer of Cvergenx. "The pGRT platform has been shown to correctly identify radiosensitizers and radioprotectors from large pharmacogenomic screens. We believe this knowledge can improve the clinical outcome of patients treated with radiotherapy."

Dr. Torres-Roca is also Professor of Oncologic Sciences at University of South Florida College of Medicine and Senior Member in the Department of Radiation Oncology and Biomedical Informatics at Moffitt Cancer Center, where pGRT is currently being evaluated in a Phase 2 prospective clinical trial for triple negative breast cancer (NCT05528133). Cvergenx is a spin-out of the Moffitt Cancer Center.

About Predictive Oncology
As a science-driven company on the leading edge of oncology drug discovery, Predictive Oncology (NASDAQ: POAI) offers an unrivaled suite of solutions for the biopharma industry. Through the integration of scientific rigor and machine learning, the company has developed the ability to advance molecules into medicine more confidently by introducing human diversity earlier into the discovery process with the pairing of artificial intelligence and the world's largest privately held biobank of over 150K tumor samples. Predictive Oncology's solutions additionally include tumor models, biologics development, formulation design, a GMP facility, a CLIA laboratory and substantial scientific domain expertise.

About Cvergenx
Cvergenx, Inc. is a genomic informatics company that provides decision-support to radiation oncologists by developing and commercializing genomic technologies to optimize and personalize radiotherapy prescription dose and the identification of novel compounds that, in combination with radiotherapy, may improve the clinical outcome of patients. The company's Precision Genomic Radiation Therapy platform (pGRT™) is a clinically validated decision support tool and takes a mathematical, rather than empirical, approach to the integration of genomics into radiation treatment planning. Developed in collaboration with the Moffitt Cancer Center, the company's patented Radiosensitivity Index (RSI) and Genomic Adjusted Radiation Dose (GARD) provide the first opportunity to adapt radiation treatment and dose to improve outcomes on a patient-by-patient basis.

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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 collaboration with Cvergenx and the potential results therefrom (including the potential impact on radiotherapy and drug discovery) are forward-looking statements. Forward-looking statements also include statements regarding our strategy, future operations, future financial position, future revenue and financial performance, projected costs, prospects, changes in management, plans and objectives of management. 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.