



Phio Pharmaceuticals Presents Data at ESMO 2021 Demonstrating Persistent Anti-Tumor Immunity with INTASYL Dual-Targeting PD-1 and BRD4

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Local treatment with PD-1 and BRD4 dual-targeting INTASYL also showed complete resolution of tumors in vivo

MARLBOROUGH, Mass., Sept. 16, 2021 /PRNewswire/ -- Phio Pharmaceuticals Corp. (Nasdaq: PHIO), a biotechnology company developing the next generation of immuno-oncology therapeutics based on its proprietary self-delivering RNAi (INTASYL™) therapeutic platform, today announced results of a new study showing that local treatment *in vivo* with INTASYL can cure tumors and generate systemic tumor immunity that is both durable and tumor specific. These data, which were presented at the European Society of Medical Oncology (ESMO) Congress 2021, highlight the potential of the Company's INTASYL technology in direct therapeutic applications.

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The study was performed to show the synergistic activity of co-targeting PD-1 and BRD4 with one INTASYL formulation (PH-3861) in a preclinical *in vivo* hepatocellular carcinoma model. The results show that up to 83% of the animals treated with PH-3861 had a complete response when treated at low doses, namely doses suboptimal for monotherapy. Moreover, this treatment induced a durable and specific systemic anti-tumor immune response, without requiring further treatment.

"We continue to build on data presented earlier this year and show how our INTASYL technology can be utilized in various applications to treat cancer, including its broad applicability as a direct therapeutic. Since cancer is a multifactorial disease, being able to address multiple factors at once is a significant benefit. The data presented today at the ESMO Congress demonstrate that we can target multiple genes in one INTASYL product, resulting in powerful therapeutics showing complete resolution of tumors and generation of tumor-specific immunity that persists for months after the initial treatment," said Dr. Simon Fricker, Phio's Vice President of R&D. "We look forward to further validate INTASYL as a therapeutic modality in an upcoming clinical trial with our lead INTASYL product candidate."

In the study presented today, subcutaneous Hepa1-6 tumors in mice were treated with a murine version of dual targeting INTASYL PH-3861 (mPH-3861) by local administration to the tumor, at low doses that are suboptimal for a single agent targeting either PD-1 or BRD4 alone. Mice showing complete cure of tumors with mPH-3861 were rechallenged by implanting hepatoma cancer cells at a different location to the previous tumor challenge up to 2.5 months after the initial treatment. All of the rechallenged mice previously cured by mPH-3861 were cured again without requiring further treatment, while tumors grew steadily in the control group as expected. These data show that treatment with mPH-3861 provides a durable and systemic anti-tumor immune response that can combat tumor growth.

A poster further detailing the data presented at the ESMO Congress 2021 titled "*Dual targeting PD-1 and BRD4 with INTASYL self-delivering RNAi elicits complete resolution of tumors and persistent anti-tumor immunity in vivo*" will be made available on the "Investors – Events and Presentations" section of the Company's website ([click here](#)).

About Phio Pharmaceuticals Corp.

Phio Pharmaceuticals Corp. (Nasdaq: PHIO) is a biotechnology company developing the next generation of immuno-oncology therapeutics based on its self-delivering RNAi (INTASYL™) therapeutic platform. The Company's efforts are focused on silencing tumor-induced suppression of the immune system through its proprietary INTASYL platform with utility in immune cells and the tumor micro-environment. Our goal is to develop powerful INTASYL therapeutic compounds that can weaponize immune effector cells to overcome tumor immune escape, thereby providing patients a powerful new treatment option that goes beyond current treatment modalities. For additional information, visit the Company's website, www.phiopharma.com.

Forward Looking Statements

This press release contains forward-looking statements within the meaning of the Private Securities Litigation Reform Act of 1995. Forward-looking statements can be identified by words such as "intends," "believes," "anticipates," "indicates," "plans," "expects," "suggests," "may," "would," "should," "potential," "designed to," "will," "ongoing," "estimate," "forecast," "target," "predict," "could" and similar references, although not all forward-looking statements contain these words. Forward-looking statements are neither historical facts nor assurances of future performance. These statements are based only on our current beliefs, expectations and assumptions regarding the future of our business, future plans and strategies, projections, anticipated events and trends, the economy and other future conditions. Because forward-looking statements relate to the future, they are subject to inherent uncertainties, risks and changes in circumstances that are difficult to predict and many of which are outside of our control. Our actual results may differ materially from those indicated in the forward-looking statements as a result of a number of important factors, including, but not limited to, the impact to our business and operations by the ongoing coronavirus pandemic, the development of our product candidates, our ability to develop our product candidates with collaboration partners, and the success of any such collaborations, the timeline and duration for advancing our product candidates into clinical development, results from our preclinical and clinical activities, the timing or likelihood of regulatory filings and approvals, our ability to manufacture and supply our product candidates for clinical activities and for commercial use if approved, the scope of protection we are able to establish and maintain for intellectual property rights covering our technology platform, our ability to obtain future financing, market and other conditions and those identified in our Annual Report on Form 10-K and subsequent Quarterly Reports on Form 10-Q under the caption "Risk Factors" and in other filings the Company periodically makes with the SEC. Readers are urged to review these risk factors and to not act in reliance on any forward-looking statements, as actual results may differ from those contemplated by our forward-looking statements. Phio does not undertake to update forward-looking statements to reflect a change in its views, events or circumstances that occur after the date of this release, except as required by law.

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