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bioAffinity Technologies Presents Research Findings at UMass RNA Therapeutics Symposium

SAN ANTONIO, Texas--(BUSINESS WIRE)-- **bioAffinity Technologies, Inc. (Nasdaq: BIAF; BIAFW),** a biotechnology company addressing the need for early-stage cancer detection and broad-spectrum cancer therapeutics, will present the poster “Vitamin B12 deprivation does not phenocopy selective cytotoxicity of CD320 and LRP2 silencing” at the University of Massachusetts (UMass) T.H. Chan Medical School’s fifth annual RNA Therapeutics Symposium June 21-23, 2023, in Worcester, MA.

The RNA Therapeutics Institute at UMass leverages RNA biology and clinical research to develop new therapeutics for multiple diseases based on the fundamental mechanisms of cellular RNAs.

David Elzi, Ph.D., Vice President of Research, and William Bauta, Ph.D., Senior Vice President of Therapeutics, will discuss the Company’s recent work that demonstrated that deprivation of vitamin B12 does not play a role in the selective cytotoxicity of cancer cells observed after silencing the expression of two specific genes, CD320 and LRP2. The vitamin B12 research follows the Company’s discovery that using small interfering RNA (siRNA) to knock down CD320 and LRP2 killed cancer cells in vitro without harming healthy cells.

One of the functions of CD320 and LRP2 is to bind to and transport vitamin B12 into cells. Since they have that in common, Drs. Elzi and Bauta tested the hypothesis that eliminating vitamin B12 could be the mechanism behind the death of cancer cells when CD320 and LRP2 are silenced. Experiments proved otherwise.

“Our research on targeted gene silencing began in order to better understand the mechanism behind our proprietary porphyrin TCPP’s ability to selectively stain cancer cells. In the process, we learned that treatment with siRNAs targeting specific cell surface receptors, CD320 and LRP2, both of which transport vitamin B12, adversely affects cancer cell survival but not normal cells,” Dr. Elzi said. “However, when the cell culture medium did not contain measurable amounts of vitamin B12, we found no difference in cell growth compared to the culture medium supplemented with vitamin B12.”

“We are continuing our investigation into how and why the simultaneous knockdown of CD320 and LRP2 inhibits cancer cell growth with no apparent effect on healthy cells. Our ultimate objective is to use this discovery to develop targeted therapeutics for multiple cancers,” Dr. Bauta added.

bioAffinity Technologies’ noninvasive test for early-stage lung cancer, CyPath® Lung,

incorporates TCPP to identify cell populations in sputum that indicate cancer is present in the lung. CyPath® Lung uses flow cytometry and AI-driven automated analysis to detect signals indicative of lung cancer.

About bioAffinity Technologies, Inc.

bioAffinity Technologies, Inc. addresses the need for noninvasive diagnosis of early-stage cancer and diseases of the lung, and targeted cancer treatment. The Company's first product, CyPath® Lung, is a noninvasive test that has shown high sensitivity and specificity for the detection of early-stage lung cancer. CyPath® Lung is marketed as a laboratory developed test (LDT) by Precision Pathology Services. OncoSelect® Therapeutics, LLC, a subsidiary of bioAffinity Technologies, is advancing its discoveries shown in vitro to kill cancer cells without harm to normal cells. Research and optimization of the Company's platform technologies are conducted in its laboratories at The University of Texas at San Antonio. For more information, visit www.bioaffinitytech.com.

Forward-Looking Statements

This press release contains forward-looking statements, including statements regarding the anticipated use of proceeds from the Company's offering of common shares. Forward-looking statements can be identified by words such as "believes," "expects," "estimates," "intends," "may," "plans," "will" and similar expressions, or the negative of these words, including statements such as continuing the Company's investigation into how and why the simultaneous knockdown of CD320 and LRP2 inhibits cancer cell growth with no apparent effect on healthy cells and obtaining the ultimate objective to use the discovery to develop targeted therapeutics for multiple cancers. Important factors that could cause actual results to differ materially from current expectations include, among others, the ability to meet the Company's ultimate objective to use this discovery to develop targeted therapeutics for multiple cancers and the risk factors described in the Company's Annual Report on Form 10-K for the year ended December 31, 2022, the Company's Quarterly Reports on Form 10-Q, the Company's Current Reports on Form 8-K and subsequent filings with the SEC. Such forward-looking statements are based on facts and conditions as they exist at the time such statements are made and predictions as to future facts and conditions. Readers of this press release are cautioned not to place undue reliance on any forward-looking statements. The Company does not undertake any obligation to update any forward-looking statement relating to matters discussed in this press release, except as may be required by applicable securities laws.

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